A Synchronic and Diachronic Study on the Infinitival Selection in the Complement of the Causative and Perception Verbs of the English Language

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Contents

1. Introduction

1.1. Infinitival Selection in the Complements of Causative and Perception Verbs

In Present-Day English, active forms of (analytic or periphrastic) causative verbs such as *make, have* and *let* take a bare infinitive in their complements, rather than a *to*-infinitive, as shown in (1) and (2).

(1) a. I ***made*** John ***wash*** the dishes. (Blanco 2011: 147)
b. The doctor ***had*** his patient ***breathe*** deeply. (Baron 1977: 53)
c. We ***let*** John ***draw*** the circle. (Felser 1999: 17)

(2) a. *I ***made*** John ***to wash*** the dishes. (Blanco 2011: 147)
b. *The doctor ***had*** his patient ***to breathe*** deeply. (Baron 1977: 53)
c. *The judge ***let*** Spiro ***to go***. (Noonan 2007[2]: 56)

On the other hand, a passive form of the causative verb *make* takes the *to*-infinitive instead of the bare infinitive in its complement, while the causative verbs *have* and *let* cannot be used in the passive form, regardless of the type of infinitive, as in (3) and (4).

(3) a. Peter ***was made to go***. (Gisborne 2010: 111)
b. *John ***was had to go***. (Ando 2008: 117)
c. *The dog ***was let to cross*** the road. (Gisborne 2010: 200)

(4) a. *Peter ***was made go***. (Gisborne 2010: 111)
b. *The children ***were had clean*** up the play room.
(Bjorkman and Cowper 2013: 2)
c. *They ***were let stay*** a while. (Palmer 1987[2]: 195)

However, previous studies on the distribution of such infinitives indicate that restrictions on the choice of infinitive according to the voice of the matrix verbs found in Present-Day English did not originally exist, as shown in (5) and (6).

(5) a. she ***maketh*** men ***mysdo*** many score tymes.
(PPI. B iii 122; Mustanoja 1960: 533)
b. þe veond hit ***makede*** me ***to don***. (Ancr. 136; ibid.)

(6) a. Ich ***am made reproce*** up alle myn enemis,
(PMPsalter, 30, 14; Matsuse 1993: 6)
b. [al thinges ***ben***] ***maked to dwelle*** in present sight.
(Usk TL.III.IV/167-168; ibid.)

The similar distribution of the infinitives in the complement for the causative verb *make* can be found in the complement of perception verbs such as *see* and *hear*. The active forms of the perception verbs take the bare infinitive in their complement, whereas they do not take the *to*-infinitive, as shown in (7) and (8).

(7) a. Bill ***saw*** Mary ***eat***. (Nunes 1995: 359)
b. Kim ***heard*** Sandy ***leave*** early. (van Valin and LaPolla 1977: 473)

(8) a. *Bill ***saw*** Mary ***to eat***. (Nunes 1995: 359)
b. *Kim ***heard*** Sandy ***to leave*** early. (van Valin and LaPolla 1977: 473)

The passive form of these perception verbs also takes the *to*-infinitive, rather than the bare infinitive in its complement, as in (9) and (10).

(9) a. *The dog ***was seen cross*** the road. (Gisborne 2010: 198)
b. *Mary ***was heard sing*** a song. (Felser 1999: 152)

(10) a. Kim ***was seen to leave*** the bank. (Huddleston and Pullum 2002: 1237)
b. John ***was heard to sing*** a song. (Felser 1999: 189)

Like the causative verbs, there was originally no restriction on the choice of infinitive in the complement of the perception verbs according to the voice of the matrix verbs, as shown in (11) and (12).

(11) a. and we should not ***see*** men ***live*** all their lives in the communion of the church,
(EEBO. 1699)
b. you shall ***see*** them ***to come*** on according to your desire: (EEBO. 1612)

(12) a. i believe there might be some talk of a person that ***was seen to go*** into the church-yard at some distance with sarah walker: (EEBO. 1699)

b. through the gloom ***were seen*** Ten thousand Banners ***rise*** into the Air. (Milton, PL. 1, 544-5; Ono and Ito 2009: 141)

What constraints are imposed on the choice of infinitival complement in these verbs in Present-Day English? This paper scrutinizes those constraints for *make*, *see* and *hear,* synchronically and diachronically, assuming that the causative and perception verbs in Present-Day English have a similar syntactic structure. The central hypothesis – that the syntactic structure in the complements of the causative and perception verbs are equivalent – is supported by many syntactic phenomena, such as distribution of non-finite verbs in their complements, aspectual properties of the non-finite verbs in their complements, an obligatory appearance of logical subjects in their complements, distribution of reflexive pronouns in their complements, and acceptability in rightward and leftward movements of elements in their complements. In the following sections, we will compare the syntactic similarities between these verbs.[1]

1.2. Syntactic Similarities in the Complements of Causative and Perception Verbs

1.2.1. Distribution of Non-finite Verbs in the Complements of Causative and Perception Verbs

First, regarding the distribution of non-finite verbs in their complements, the causative verbs take the bare infinitive, present participle and past participle, as shown in the following examples – with a few exceptions. The causative verb *make* takes the bare infinitive and past participle in its complement, but not the *to*-infinitive and present participle, as in (13).[2] [3]

(13) a. I ***made*** John ***wash*** the dishes. (Blanco 2011: 147)

b. *I ***made*** John ***to wash*** the dishes. (ibid.)

c. *I ***made*** John and Mary ***talking*** when Fred entered. (Dixon 2005[2]: 199)

d. She had to shout to ***make*** herself ***heard***. (Swan 2016[4]: §107)

The causative verb *have* takes all types of non-finite verb in its complement except for the *to*-infinitive, as in (14).

(14) a. The doctor ***had*** his patient ***breathe*** deeply. (Baron 1977: 53)
b. *The doctor ***had*** his patient ***to breathe*** deeply. (ibid.)
c. She ***had*** us ***working*** day after day. (Quirk et al. 1985: 1207)
d. John ***had*** Bill ***arrested***. (Ritter and Rosen 1993: 536)

On the other hand, the causative verb *let* takes only the bare infinitive in its complement, as shown in (15).[4] [5]

(15) a. We ***let*** John ***draw*** the circle. (Felser 1999: 17)
b. *The judge ***let*** Spiro ***to go***. (Noonan 2007[2]: 56)
c. ****Let*** him ***eating*** his lunch. (Nakamura 2018: 246)
d. ****Let*** the door ***closed***. (ibid.)

These types of non-finite verb also can appear in the complements of perception verbs, as in (16) and (17) (note that (Censored.) below is an example reflecting checks by five native English speakers).

(16) a. Bill ***saw*** Mary ***eat***. (Nunes 1995: 359)
b. *Bill ***saw*** Mary ***to eat***. (ibid.)
c. I ***saw*** the children ***eating*** their lunch. (Palmer 1987[2]: 199)
d. I ***saw*** the children ***beaten*** by their rivals. (ibid.)

(17) a. I ***heard*** the child ***cry***. (Espunya 1996: 113)
b. *I ***heard*** the child ***to cry***. (Censored.)
c. I ***heard*** the child ***crying***. (Espunya 1996: 113)
d. She ***heard*** her name ***called*** from behind. (Egawa 1991[3]: 351)

The distribution of non-finite verbs in the complements of these verbs can be summarized as follows. With a few exceptions, the distribution of non-finite verbs in the complements of the causative and perception verbs is very similar. The distribution of the non-finite verbs, such as a perfect infinitive and perfect participle, will be discussed in detail in later sections.

Table 1. Distribution of Non-finite Verbs in the Complements of Causative and Perception Verbs

		Bare Infinitive	To-Infinitive	Present Participle	Past Participle
Causative Verbs	make	○	×	×	○
	have	○	×	○	○
	let	○	×	×	×
Perception Verbs	see	○	×	○	○
	hear	○	×	○	○

Sportiche et al. (2014: 342) argue that such differences in the distribution of non-finite verbs appearing in the complement indicate that causative verbs such as *make, have* and *let* contain different properties. However, expressions that are not acceptable in Present-Day English have been attested diachronically, as in (18), (19), (20) and (21).[6] [7]

(18) a. þe veond hit ***makede*** me ***to don***. (Ancr. 136; Mustanoja 1960: 533)
b. *I ***made*** John ***to wash*** the dishes. (Blanco 2011: 147)

(19) a. What ***makes*** you ***listening*** there?
(John Dryden, *The Spanish Friar*, 450; Yamakawa 1963: 109)
b. *I ***made*** John and Mary ***talking*** when Fred entered. (Dixon 2005[2]: 199)

(20) a. And ***leet*** hem ***to drawe*** on þe pauement
(*Arthur and Merlin*, 367. Later version, c.1400; Ziegeler 2006: 126)
b. *The judge ***let*** Spiro ***to go***. (Noonan 2007[2]: 56)

(21) a. With his triumphe, and laurer-corouned thus, … ***Let*** I this noble prince Theseus Toward Athenes in his wey ***rydinge***, …
(Geoffrey Chaucer, *Anelida and Arcite*, 43-46; Yamakawa 1963: 95)
b. *We ***let*** John ***drawing*** a circle. (Felser 1999: 56)

Also (as will be justified in more depth), given these various syntactic similarities between the causative and perception verbs, this paper assumes that they have a similar syntactic structure.

1.2.2. Aspectual Properties of Non-finite Verbs in the Complements of Causative and Perception Verbs

As demonstrated above, causative and perception verbs take the bare infinitive and present participle. According to Akmajian (1977) and Palmer (1987[2]: 175-176), the bare infinitival complement of the causative verbs indicates perfectivity, as in (22).[8]

(22) a. We ***made*** them ***march*** into the mess hall. (completed) (Akmajian 1977: 440)
b. We ***had*** them ***march*** into the mess hall. (completed) (ibid.)

According to previous studies including Hornby (1975[2]: 64), Quirk et al. (1985: 1206), Alexander (1988: 302), Declerck (1991: 489), Huddleston and Pullum (2002: 1237) and Depraetere and Langford (2020[2]: 73), as in (23), this aspectual property can be also found in the bare infinitival complement of perception verbs (for the rigorous analysis of the perfectivity of the bare infinitival complements of the perception verbs, see Kashino (2003) and Sawada (2016: 48-49)).[9]

(23) a. I ***saw*** him ***cross*** the road. (From one side to the other.) (Allen 1974[5]: 186)
b. I ***heard*** the child ***cry***. (complete occurrence) (Espunya 1996: 113)
c. We ***watched*** the prisoners ***die***. (completed) (Akmajian 1977: 440)

This aspectuality is similar to that of the simple past tense, as in (24) (cf. Huddleston and Pullum (2002: 1237)).[10]

(24) She ***was drowned***. (completion) (Declerck 1981: 97)

These similarities can be demonstrated in the following examples. The simple past tense in (25) indicates perfectivity, so it cannot be followed by a negative expression as this would cancel the completion of the event.

(25) *She ***was drowned*** but I rescued her. (Declerck 1981: 97)

The bare infinitival complement of causative and perception verbs indicates perfectivity, so they also cannot be followed by a negative expression, as in (26) and (27) (cf. Inoue (1982: 93) and Kashino (2003: 65)).[11]

(26) a. *She ***made*** him ***shave*** but he refused. (Givón 2001: 45)
b. *Johnson ***had*** Mary ***do*** the work, but she couldn't because something important came up. (Hayase 2002: 208)
c. *?I ***let*** him ***do*** it, but he didn't do it. (Duffley 1992: 85)
d. *I ***let*** John {***do*** / ***say***} foolish things, but he didn't {do / say} them. (cf. da Silva 2007: 172)

(27) a. *I ***saw*** her ***drown***, but I rescued her. (Kirsner and Thompson 1976: 215)
b. Kim ***saw*** Sandy ***leave*** early (and called her and asked her to come back/ *and stopped her and asked her to stay a few minutes longer). (van Valin and LaPolla 1997: 473)
c. #Mary ***heard*** the teacher ***drop*** a book, but he actually slammed a door. (Moulton 2009: 140)
d. *I ***saw*** John ***enter*** the room, but I didn't know whether he actually got inside. (Kashino 2010: 408)

These linguistic facts clearly show that the bare infinitival complement of these verbs indicates the aspectual property of the perfectivity.

In addition to this aspectual property of perfectivity, the bare infinitival complement indicates simultaneity with the tense of the matrix verb. As proof of this, some previous studies provide the following examples. Given that the bare infinitive indicates the simultaneity, it cannot be used with adverbs which indicate time gapping, as in (28).[12]

(28) a. *John ***made*** Bill ***leave*** tomorrow. (Hornstein 1990: 154)
b. *At 6 o'clock, John ***made*** Bill ***leave*** at 7 o'clock. (Hornstein 1990: 155)
c. *Last night she {***made*** / ***let***} him ***go*** tomorrow. (Mittwoch 1990: 118)
d. *Two years ago John ***made*** Mary finally ***quit*** her job yesterday. (Givón 2001: 46)
e. *Yesterday the teacher ***had*** students ***play*** on the ground today. (Hayase 2002: 208)
f. *Last week Jim ***let*** her ***leave*** next month. (Čakányová 2019: 29)

Due to the simultaneity, a perfect infinitive cannot appear in the bare infinitival complement, as in (29), because it is pragmatically impossible to give commands or instructions retroactively in the past.

(29) a. *We ***let*** him ***have eaten*** supper by 4 o'clock. (Akmajian et al. 1979: 41)
b. *Rex ***made*** his son ***have gone*** to the neighbors by the time his mother got back. (Iveland 1993: 7)
c. *They ***made*** the children ***have finished*** their homework. (Zagona 1988: 50)
d. *I'll ***make*** my child ***have cleaned*** the house by Wednesday. (Blanco 2011: 137)
e. *John ***had*** Mary ***have washed*** the dishes by the time… (Johnson 2014: 44)

According to Nakau (1980) and Hornstein (1990), this simultaneity can be seen in the bare infinitival complement of perception verbs.

(30) a. *(Yesterday) I ***saw*** the man ***cross*** the road tomorrow. (Nakau 1980: 140)
b. *John ***saw*** Bill ***leave*** tomorrow. (Hornstein 1990: 154)
c. *At 6 o'clock, John ***saw*** Bill ***leave*** at 7 o'clock. (Hornstein 1990: 155)
d. *Yesterday I ***saw*** him ***hide*** the safe tomorrow. (Takahashi 1999: 128)
e. *Today Jim ***saw*** her ***cry*** yesterday evening. (Čakányová 2019: 29)

In relation to the time gapping, the perception verbs also cannot co-occur with the perfect infinitive, as shown in (31), because the perceptual events that we take usually require us to directly see or hear the event and, once we have missed them, we cannot go back in time and perceive the past events (cf. Hudson (1971: 136, 204)).

(31) a. *I don't like to ***see*** people ***have drunk***. (Nakau 1980: 147)
b. *I ***saw*** a great change ***have come*** over him. (Declerck 1981: 86)
c. *John ***saw*** the lawn ***have been mown***. (Declerck 1983a: 39)
d. *John ***saw*** Bill ***have left***. (Hornstein 1990: 154)
e. *We ***saw*** Mary ***have finished*** her breakfast. (Felser 1999: 32)

The occurrence of *be + present participle* in the bare infinitival complement is also ungrammatical, as in (32) and (33).

(32) a. *I don't like to ***see*** people ***be drinking***. (Nakau 1980: 147)
b. *I ***saw*** John ***be sleeping***. (Declerck 1981: 91)
c. *We ***saw*** John ***be drawing*** a circle. (Felser 1998: 363)
d. *We ***saw*** Kim ***be leaving*** the bank. (Huddleston and Pullum 2002: 1237)

e. *Jane ***saw*** Peter ***be kissing***. (Gisborne 2010: 209)

(33) a. *The movie ***made*** her ***be crying***. (Takahashi 2012: 132)
b. *The heat of the summer will ***make*** the rice ***be growing***. (ibid.)
c. *I cannot ***let*** sentiment ***be entering*** into business. (ibid.)
d. *I ***let*** Diane ***be kissing*** him. (Gee 1975: 358)
e. *I ***had*** him ***be typing*** my letter. (Takahashi 2012: 132)
f. *I ***had*** John ***be preparing*** for the party. (Gee 1975: 375)

This is because the progressive form indicates an event leading up to an event that the present participle denotes (i.e., a preliminary process or preceding state) (cf. Sato (2014: 101) and Kira (2018: 199-200)). The perceptual actions we take usually require that the perceptual action and the perceived object exist simultaneously, and we cannot retroactively perceive the past state, preliminary process, or preceding state, which are indicated by the progressive form. Hence, (32) is considered ungrammatical. The same is true for causative verbs: we cannot go back in time and give instructions to someone else. Therefore, (33) is not grammatically correct. From these linguistic facts, we can conclude that the bare infinitival complement of causative and perception verbs indicates perfectivity and simultaneity (counterexamples to this conclusion will be addressed in 2.1.3).

Contrary to the bare infinitive (which indicates perfectivity), the present participle indicates the temporality or imperfectivity of the event. According to Palmer (1987[2]: 175-176) and Akmajian (1977), the present participial complement of the causative verb *have* also indicates imperfectivity, as in (34), as well as that of perception verbs, as in (35) (cf. Hornby (1975[2]: 64), Quirk et al. (1985: 1206), Alexander (1988: 302), Declerck (1991: 489), Huddleston and Pullum (2002: 1237) and Depraetere and Langford (2020[2]: 73)).[13]

(34) We ***had*** them ***marching*** into the mess hall. (incomplete) (Akmajian 1977: 440)

(35) a. I ***saw*** him ***crossing*** the road. (On the way to the other side.)
(Allen 1974[5]: 186)
b. We ***watched*** the prisoners ***dying***. (incomplete) (Akmajian 1977: 440)
c. I ***heard*** the child ***crying***. (actual ongoing event) (Espunya 1996: 113)

This semantic difference between the bare infinitive and the present participle is evident in the following examples.

(36) a. Look! I ***see*** him ***leaving*** the building.
(Larsen-Freeman and Celce-Murcia 2015[3]: 696)
b. *Look! I ***see*** him ***leave*** the building. (ibid.)

In (36a), the present participial complement is used, which denotes "I see him in the middle of leaving." On the other hand, in (36b) the bare infinitival complement is used, which indicates the action of leaving is complete, but (36b) is considered ungrammatical. This is due to the tense of the perception verb. According to Yasui (1997: 10) and Kira (2006: 39), perception verbs in simple present tense indicate instantaneous perception, but an event indicated by a bare infinitival complement, which implies completion, has a certain time span, making it difficult for a bare infinitival complement to co-occur with instantaneous perception because of the time inconsistency. Furthermore, the exclamation "Look!" reinforces the instantaneous reading and therefore the bare infinitival complement, implying the completeness is judged to be ungrammatical. The validity of this analysis is evident from the following acceptability.

(37) a. *In this photograph you can ***see*** Joan ***blink***.
(Kirsner and Thompson 1976: 170)
b. In this photograph you can ***see*** Joan ***blinking***. (ibid.)

Similar restrictions on the choice of non-finite verb are also imposed on the complements of causative verb. In (38), the phrase of "Oh, look," is followed by the causative verb *have*. The example with the bare infinitive is considered ungrammatical because the bare infinitival complement indicates completeness, which would imply the inexplicable meaning that Charlie finishes dancing in the very moment of looking. On the other hand, in the present participial complement, such the time inconsistency is not an issue, so (38b) is judged to be grammatical.

(38) a. *Oh look, Lou ***has*** Charlie ***dance***! (Belvin 1993: 62)
b. Oh look, Lou ***has*** Charlie ***dancing***! (ibid.)

This aspectual property of the present participle is similar to that of the progressive form indicating imperfectivity, as in (39) (cf. Huddleston and Pullum (2002: 1237)).[14]

(39) She ***was drowning***. (no completion) (Declerck 1981: 97)

These similarities can be demonstrated in the following examples. The progressive form and present participial complements of causative and perception verbs indicate imperfectivity, so they can be followed by the negative expression which cancels the completion of the event, as shown in (40), (41) and (42). This is contrary to the acceptability for the examples of the simple past tense and bare infinitival complement (cf. (25), (26) and (27)).

(40) She ***was drowning***, but I rescued her. (no completion) (Declerck 1981: 97)

(41) She ***had*** him ***eating*** my chocolates, but I stopped him. (Inoue 1983a: 93)

(42) a. I ***saw*** her ***drowning***, but I rescued her. (Kirsner and Thompson 1976: 215)

b. I ***saw*** my mother ***approaching***. But now I don't know. It was her sister. (Bartsch 1995: 49)

c. Martha ***saw*** Fred ***driving*** too fast, but she believed he wasn't. (Moulton 2009: 128)

d. I ***saw*** John ***entering*** the room, but I didn't know whether he actually got inside. (Kashino 2010: 408)

From these linguistic facts, the present participial complement of the causative and perception verbs indicates imperfectivity and temporality, as well as the progressive form.

In addition to this aspectual property of the imperfectivity, the present participial complement also indicates the simultaneity with the tense of the matrix verb. As proof of this, some informants and previous studies – such as Takahashi (1999) and Kuwabara and Matsuyama (2001) – provide the following examples. Given that the present participle indicates the simultaneity, it cannot be used alongside adverbs which indicate time gapping, as in (43).

(43) a. *Yesterday I ***had*** him ***hiding*** the safe tomorrow. (Censored.)

b. *Yesterday I ***saw*** him ***hiding*** the safe tomorrow. (Takahashi 1999: 128)

c. *At 6 o'clock, John ***saw*** Bill ***leaving*** at 7 o'clock. (Kuwabara and Matsuyama 2001: 120)

Additionally, the perfect participle cannot be used in the present participial complement, as in (44) and (45) (cf. Fillmore (1963: 217)); the present participle indicates the simultaneity, and it is pragmatically impossible to give commands or to see and hear the past perceptual event retroactively.

(44) a. *I ***had*** the man ***having finished*** the work. (Censored.)
b. *The U.S. senator ***had*** the secretary ***having disposed*** the document. (Censored.)

(45) a. *I ***heard*** Mary ***having played*** my song. (Akmajian 1977: 431)
b. *I don't like to ***see*** people ***having drunk***. (Nakau 1980: 147)
c. *I ***saw*** a great change ***having come*** over him. (Declerck 1981: 86)
d. *I ***saw*** the man ***having finished*** the work. (Okada 1985: 239)

From these linguistic facts, we can conclude that the present participial complement of causative and perception verbs indicates the imperfectivity, temporality and simultaneity. As shown above, causative and perception verbs share similarities in the aspectual characteristics of the non-finite verbs that appear in their complements.

1.2.3. An Obligatory Appearance of Logical Subjects in the Complements of Causative and Perception Verbs

In the complements of causative and perception verbs, a logical subject appears with the accusative case, as in (46).

(46) a. I ***made*** John ***wash*** the dishes. (Blanco 2011: 147)
b. We ***had*** them ***marching*** into the mess hall. (Akmajian 1977: 440)
c. I ***saw*** the children ***eat*** their lunch. (Palmer 1987[2]: 199)
d. I ***saw*** him ***crossing*** the road. (Allen 1974[5]: 186)

Regarding the bare infinitival complement, its logical subject must be in the accusative case, as in (46a) and (46c), and it cannot be indicated by *for* + *NP*, as in (47).[15]

(47) a. *Jane ***made*** for John ***leave***. (Čakányová 2018: 160)
b. *I ***had*** for him ***buy*** some flowers. (Sheehan and Cyrino 2017: 82)

c. *We ***saw*** for John ***draw*** a circle. (Felser 1998: 352)
d. *I ***heard*** for him ***buy*** some flowers. (Sheehan and Cyrino 2017: 82)

The logical subject of the present participial complement also must be in the accusative case, as in (46b) and (46d), and it cannot be indicated by the possessive case, as in (48).

(48) a. *They will soon ***have*** his ***calling*** here. (Poutsma 1928[2]b: 991)
b. *I ***saw*** his ***kissing*** her. (ibid.)
c. *I ***heard*** my ***saying*** such foolish things. (Akmajian 1977: 429)
d. *I ***saw*** Chloe's ***talking*** to Mia. (Swan 2016[4]: §110)

Furthermore, an example which omits the logical subject in its complement is not grammatically correct, as shown in (49).

(49) a. *Mary ***made run***. (Blanco 2011: 117)
b. *Mary ***had cry***. (Brownlow 2011: 31)
c. *Mary ***had crying***. (Censored.)
d. *We {***saw*** / ***watched***} ***draw*** a circle. (Felser 1999: 17)
e. *I ***saw trembling*** all over in the mirror. (Sakakibara 1981: 112)
f. *I ***heard talking*** on the phone. (=I ***heard*** myself ***talking*** on the phone). (Pires 2006: 87)

However, there are some constructions without logical subjects in their complements, such as *let go (of)* and *hear say*, as in (50).

(50) a. He ***let go*** the ball. (Santorini and Heycock 1988: 7)
b. ***Let go*** (of) my leg! (Bolinger 1971: 120)
c. I've often ***heard tell*** of such things. (Ando 2005: 748)
d. I have ***heard φ say*** that the moon influences the weather. (Ando 2008: 126)

This paper assumes these expressions to be idiomaticalized expressions. As evidence of this, *let go* (*of*) *NP* exhibits some different syntactic behaviors than the causative verb *let*, as shown in (51). The causative verb *let* in *let NP go* can co-occur with an adverbial phrase indicating locations, as shown in (51a) and (51c), but *let go (of) NP*, which does not indicate the causative meaning, cannot, as shown in (51b) and (51d).[16] [17]

(51) a. He ***let*** the butler ***go*** {away / to Paris / out of the room}. (Anderson 2005: 45)
b. *He ***let go*** the butler {away / to Paris / out of the room}. (ibid.)
c. She ***let*** him ***go*** where he wanted. (Givón 2001: 46)
d. *She ***let go of*** him where he wanted. (ibid.)

In the case of *hear tell* and *hear say*, unlike the normal perception verbs, the present participial complement cannot be used, as in (52) (the origin of the constructions of *hear say* will be discussed in 3.4.2).

(52) a. *I've often ***heard telling*** of such things. (Censored.)
b. *I have ***heard φ saying*** that the moon influences the weather. (Censored.)

From these syntactic phenomena, this paper considers these expressions as the idiomaticalized expressions. Ando (2008: 126) further provides the following examples such as *make believe* and *help Inf*, but according to the OED (*s.v. make*, *v.*1. 39d), *make believe* in (53a) is an imitation of the French *faire croire*, and according to Mair (2002: 121-126), the verb *help* in (53b) has changed through grammaticalization into a functional element – an auxiliary verb – from a lexical element. Additionally, Quirk et al. (1985: 1205) identify that the verb *let* found in (53c) functions as an auxiliary verb.

(53) a. Let's ***make believe*** we are soldiers. (Ando 2008: 126)
b. Can I ***help wash*** up? [< ***help*** you ***wash*** up] (ibid.)
c. ***Let go***! You're hurting me! [< ***let*** me ***go***] (ibid.)

With these exceptions of such idiomatic or grammaticalized expressions, the logical subjects occur obligatorily in the complement of the causative and perception verbs, as demonstrated above. The empirical evidence for the obligatory appearance of the logical subjects is the appearance of syntactic expletives such as *there* and *it*, in their complement, as in (54).

(54) a. We ***saw*** there ***arise*** over the meadow a blue haze.
(Kirsner and Thompson 1976: 159)
b. I ***heard*** it ***chime*** one o'clock as I was turning out of the gate.
(Declerck 1983b: 106)
c. {***Make*** / ***Let***} it ***rain***. (Gee 1977: 467)
d. John ***made*** there ***be*** computers available for all the students.

(Ritter and Rosen 1993: 541)

Furthermore, the occurrence of PRO (pronouns without phonological features) in the complements is unacceptable, as shown in (55), and the appearance of logical subjects with phonological features in their complements is obligatory, as shown in (46).

(55) a. *They ***made*** [PRO ***eat*** the squid]. (Johnson 1988: 595)
b. *I ***had*** PRO ***sing*** the song. (Sheehan and Cyrino 2017: 82)
c. *She ***saw*** [PRO ***hammer*** the board]. (Johnson 1988: 595)
d. *I ***heard*** PRO ***sing*** the song. (Sheehan and Cyrino 2017: 82)

Even when the subject of the main clause and logical subject of its complement are the same, the logical subject is not omitted, and a reflexive pronoun is used as the logical subject, as in (56).

(56) a. *They {***saw** / ***heard** / ***made**} [PRO ***sing***]. (Sportiche et al. 2014: 254)
b. They {***saw** / ***heard** / ***made**} [themselves ***sing***]. (ibid.)
c. *I ***heard talking*** on the phone. (=I ***heard*** myself ***talking*** on the phone). (Pires 2006: 87)
d. I ***saw*** myself ***trembling*** all over (in the mirror). (Akmajian 1977: 434)
e. *I ***let be arrested***. (Fodor 1974: 98)
f. I ***let*** myself ***be arrested***. (ibid.)

There is also a similarity in the distribution of these reflexive pronouns in the complements of causative and perception verbs. This point will be discussed in the following section.

1.2.4. The Distribution of Reflexive Pronouns in the Complements of Causative and Perception Verbs

Regarding the occurrence of the reflexive pronoun as in (56), many similarities can be found in the distribution of reflexive pronouns or binding phenomena in the complements of causative and perception verbs (cf. Muraoka (2021b)). According to Chomsky (1993) and Chomsky and Lasnik (1993), reflexive pronouns must be locally bound. For example, (57a) and (57c) are grammatically correct because the reflexive pronouns are locally bound, whereas (57b) and (57d) are not grammatically correct because the reflexive

pronouns are not locally bound; that is, the reflexive pronouns are bound, non-locally, beyond the *that*-clause.

(57) a. John$_i$ criticized himself$_i$. (Chomsky 1995: 87)
b. *John$_i$ said Mary criticized himself$_i$. (ibid.)
c. Mary believes that John$_i$ can feel proud of himself$_i$. (Oba 2011: 193)
d. *John$_i$ believes that Mary can feel proud of himself$_i$. (ibid.)

First, the binding phenomena between the subject of the main clause and the logical subject of the complements are as follows: the reflexive pronouns found in these examples are locally bound and do not violate the binding principle.

(58) a. Can I ***make*** myself ***believe*** that again? (COHA. 1985. FIC)
b. I shall ever ***get*** myself ***to sleep*** if I ***let*** myself ***think*** about it. (COHA. 1912. FIC)
c. I ***saw*** myself ***trembling*** all over (in the mirror). (Akmajian 1977: 434)
d. He {***saw*** / ***had***} a picture of himself ***being turned*** out. (Censored.)

Next, as for binding phenomena between the subject of the main clause and the object of the non-finite verbs in the complements, expressions in (59) are not grammatically correct, because the reflexive pronouns found in these examples are not locally bound or are bound beyond the complement. In this way, these expressions violate the binding principle.

(59) a. *John$_i$ ***saw*** Mary ***scratch*** himself$_i$. (Clark and Jäger 2000: 20)
b. *John$_i$ ***made*** Mary ***scratch*** himself$_i$. (Muraoka 2021b: 21)
c. *We$_i$ ***saw*** Mary ***kiss*** each other$_i$. (Akmajian 1977: 472)
d. *We$_i$ ***made*** Mary ***kiss*** each other$_i$. (Muraoka 2021b: 26)

On the other hand, the binding phenomena between the logical subject of the complements and the object of prepositions in the complements are as follows: the reflexive pronouns found in these examples are locally bound and do not violate the binding principle.

(60) a. We {***saw*** / ***had***} John$_i$ ***paint*(*ing*)** the whole house by himself$_i$.
(cf. Inoue 1983a: 92)
b. John {***saw*** / ***had***} Mary$_i$ ***turn*(*ing*)** over a picture of herself$_i$. (Censored.)

Finally, as for the binding phenomena between the subject of the main clause and the object of the prepositions in the complement, expressions in (61) are not grammatically correct, because the reflexive pronouns found in these examples are not locally bound or are bound beyond the complement. In this way, these expressions violate the binding principle.

(61) a. *[John and Bill]$_i$ ***saw*** [the soldier ***shoot*** at each other$_i$'s laps].
(Matsuyama 1999: 411)
b. *The choreographers$_i$ ***made*** [Bill ***dance*** with each other$_i$'s students]. (ibid.)
c. *The choreographers$_i$ ***let*** [Bill ***speak*** to each other$_i$'s students]. (ibid.)
d. *John$_i$ {***saw*** / ***had***} Mary ***turn*(*ing*)** over a picture of himself$_i$. (Censored.)

These similarities in the binding principle and the distribution of the reflexive pronouns suggest that causative and perception verbs have a similar syntactic structure.[18]

1.2.5. Acceptability in Rightward and Leftward Movements of Elements in the Complements of Causative and Perception Verbs

So far, we have identified several similarities in the complements of causative and perception verbs, such as the distribution of non-finite verbs in their complements, the aspect of non-finite verbs in their complements, the obligatory appearance of the logical subject in their complement, and the distribution of reflexive pronouns in their complement. Further to these syntactic behaviors, there are syntactic similarities between causative and perception verbs in the movements of elements in their complements, as is demonstrated below. First, except for *wh*-movement, topicalization, and heavy NP shifts, regarding the movement of noun phrases, originally the logical subject in their complements is placed before the non-finite verbs, as in (62).

(62) a. I can't ***make*** the washing machine ***work***. (Swan 2016[4]: §108)
b. He ***let*** the people ***walk*** on the glass. (Palmer 1965: 160)
c. Bill ***saw*** Mary ***eat***. (Nunes 1995: 359)
d. I ***heard*** the child ***cry***. (Espunya 1996: 113)

This may be because the predication in their complements is structurally licensed (this point will be discussed in 1.2.6). Therefore, the movements of the logical subject are generally unacceptable, except for *wh*-movement, topicalization, and heavy NP shifts. In the complements of the causative verbs, (62) is the normal word order, while no movement of the logical subjects is allowed, as in (63). The same is true for the complements of perception verbs, in which the movement of the logical subjects is considered ungrammatical, as seen in (64).

(63) a. *I can't ***make work*** the washing machine. (Swan 2016[4]: §108)
b. *He ***let walk*** the people on the glass. (Palmer 1965: 160)

(64) a. *Into this room we ***saw run*** Robin. (Culicover 2013: 283)
b. ?I ***saw*** *t* ***razing*** the room that fearless poltergeist. (Johnson 1988: 604)
c. ?I ***heard*** *t* ***pelting*** the roof the golfball-sized hail. (ibid.)

Although there is no clear standard for judging the length or weight of the noun phrases in these cases, it is possible for heavy NP – which is the logical subject in the complement of the causative verbs – to move as follows.

(65) a. He ***let fall*** a hint of his intentions. (Hornby 1975[2]: 66)
b. Don't ***let slip*** any opportunity of practicing your English. (ibid.)

These heavy NP shifts are also found in the complements of perception verbs, as shown in (66).

(66) a. He ***saw*** φ ***crouching*** among the bushes an animal which he thought might be a fox. (Sakakibara 1981: 115)
b. He ***watched*** φ ***taking*** a bath a beautiful lady whose daughter had betrayed him. (Sakakibara 1981: 114-115)
c. I ***saw*** (***to***) ***walk*** across the street a man with a big blue suitcase. (Ishihara 2009: 103)

Additionally, it is possible for the heavy NP – which is an object of the non-finite verbs in the complement of causative and perception verbs – to move, as follows.

(67) a. The editor didn't ***make*** [John ***write*** _] until yesterday [the harshly critical review of Bill's Book]. (Matsuyama 1999: 409)
b. I ***saw*** [Mary ***meet*** _] yesterday [a woman who I have never seen before]. (ibid.)

On the contrary, the movement of non-finite verbs in the complements of causative and perception verbs is not grammatically correct, as in (68) and (69).[19]

(68) a. I ***made*** Mary ***visit*** John yesterday. (Censored.)
b. *I ***made*** Mary yesterday [***visit*** John]. (Censored.)
c. The U.S. senator ***had*** the secretary ***disposing*** the document last week. (Censored.)
d. *The U.S. senator ***had*** the secretary last week [***disposing*** the document]. (Censored.)

(69) a. The guard ***saw*** John ***leaving*** the premises twice last week. (Declerck 1982: 18)
b. *The guard ***saw*** John twice last week ***leaving*** the premises. (ibid.)
c. I ***saw*** Diane ***kissing*** John recently. (ibid.)
d. *I ***saw*** Diane recently ***kissing*** John. (ibid.)

In the following examples, the logical subject moves with the non-finite verbs. These movements are also grammatically incorrect.

(70) a. *I ***made*** yesterday [Mary ***visit*** John]. (Matsuyama 1999: 413)
b. *The U.S. senator ***had*** last week [the secretary ***disposing*** the document]. (Censored.)

(71) a. *I ***saw*** yesterday [Mary ***cross*** the street]. (Matsuyama 1999: 413)
b. ?I ***saw***, but Mary didn't see, John ***dance*** with Jane. (Ishii 1987: 84)

In addition to these rightward movements of the elements in their complements, the noun phrases in the complement move due to topicalization, which is the leftward movement of the elements in their complements. First, the topicalization of the logical subject in their complements is accepted, as in (72) and (73).

(72) a. Mary, I ***made*** _ ***visit*** her mother every week. (Censored.)
b. Mary, I ***had*** _ ***taking*** care of my baby. (Censored.)

(73) a. His sister, John ***saw*** (*to) ***walk*** across the street. (Ishihara 2009: 103)
b. John, I ***saw steal*** the car. (Gee 1975: 294)
c. The moon, I'd love to ***see*** _ ***rising*** over the mountain. (Akmajian 1977: 438)

On the other hand, the topicalization of the non-finite verbs in their complements and the topicalization of the logical subject with the non-finite verbs in their complements are not accepted, as follows.

(74) a. *[***Visit*** her mother every week] I ***made*** Mary. (Koopman 2000: 269)
b. ?*Madame Spanella claimed that [$_{VP}$ ***eat*** rutabagas], Holly ***made*** me t_{VP}.
(Johnson 2001: 444)
c. *****Running*** in the bathtub, John ***has*** the water. (Dieterich 1975: 169)
d. *****Missing***, John ***has*** a tooth. (ibid.)
e. *Linda said she would have the doctor examine JR and [***examine*** JR] she ***had*** the doctor. (Iveland 1993: 11)

(75) a. *****Operate*** on the patient I ***saw*** the doctor. (Miller 2002: 257)
b. *****Kissing*** her new boyfriend, someone ***saw*** Diane. (Declerck 1982: 17)

(76) a. *[Mary ***visit*** John], I ***made*** _. (Matsuyama 1999: 413)
b. *[Mary ***visit*** her mother every week] I ***made***. (Koopman 2000: 269)
c. *Linda said she would have the doctor examine JR and [the doctor ***examine*** JR] she ***had***. (Iveland 1993: 11)

(77) a. *That girl ***playing*** outside, I've never ***seen***. (Declerck 1982: 22)
b. *Him {***sing*** / ***singing***} an Italian song, I ***heard***. (Okada 1985: 203)
c. *[Mary ***cross*** the street], I ***saw*** _. (Matsuyama 1999: 413)
d. *John ***cross*** the street, I ***saw*** yesterday. (Yokogoshi 2007: 183)

The acceptability of this movement is also confirmed in a cleft sentence. In cleft sentences, it is possible to extract the logical subject in their complements, as in (78) and (79).

(78) a. It is the boy that I ***made carry*** these dishes. (Censored.)
b. It is the secretary that the U.S. senator ***had disposing*** the document. (Censored.)

(79) a. It is a boy that I ***saw swim*** in the lake. (Declerck 1983b: 118)
b. It was the moon that we ***saw raising*** over the mountain. (Akmajian 1977: 438)

On the other hand, extracting the non-finite verb or the logical subject with the non-finite verb from their complements is considered ungrammatical, as in (80), (81), (82) and (83).

(80) a. *It is [***carry*** these dishes]$_i$ that I ***made*** the boy t_i. (Censored.)
b. *It is [***disposing*** the document]$_i$ that the U.S. senator ***had*** the secretary t_i. (Censored.)

(81) a. *It was [***kiss*** Mary]$_i$ that Tom ***saw*** Mark t_i yesterday. (Censored.)
b. *It was [***kissing*** Mary]$_i$ that Tom ***saw*** Mark t_i yesterday. (Censored.)

(82) a. *It is the boy ***carry*** these dishes that I ***made***. (Censored.)
b. *It is the secretary ***disposing*** the document that the U.S. senator ***had***. (Censored.)

(83) a. *It was Raquel Welch ***take*** a bath that we ***saw***. (Akmajian 1977: 439)
b. *It was it ***snowing*** on the mountain that we ***saw***. (Inoue 1982: 98)

These similarities in the movement of the elements in the complement can be also observed in the case of *wh*-movement. First, the *wh*-movement of the logical subject in the complement of the causative and perception verbs is grammatically correct, as in (84) and (85) (cf. Stewart (1976: 45), Johnson (1988: 605) and Amritavalli (2017: 263)), whereas some grammarians deny the acceptability, as shown in (86).

(84) a. Who did Mary ***make*** (*to) ***read*** a book? (Blanco 2011: 157)
b. Who did you ***have take*** out the trash? (Bowers 1993: 646)

(85) a. Who did you ***see steal*** the car? (Gee 1975: 293)
b. Which boy did I ***see swim*** in the lake? (Declerck 1983b: 118)

(86) a. *Who did you manage to ***make stop*** hiccoughing? (Nanni 1978: 110)
b. ??Who did you ***hear play*** your favorite melody? (ibid.)
c. ?Who did you ***see steal*** the wallet? (Basilico 2003: 18)

However, the *wh*-movement of the logical subject with the present participle is not acceptable, as in (87a, c).

(87) a. *Which waiter ***washing*** the dishes did you ***have***? (Censored.)
b. Which waiter did you ***have washing*** the dishes? (Censored.)
c. *Which girl ***playing*** outside have you never ***seen***? (Declerck 1982: 22)
d. Which girl have you never ***seen playing*** outside? (ibid.)

The *wh*-movement of a noun phrase inside a compound noun phrase is also considered grammatical, as in (88) and (89) (cf. Basilico (2003: 5)).

(88) a. Which physicist did you purposely ***let*** [[a book about *t*] ***drop*** on the floor]? (Matsuyama 1999: 421)
b. Who$_i$ did you ***let*** [a rumor about t_i] ***spread*** around the entire department? (Basilico 2003: 5)
c. Of which car$_i$ did you ***make*** [the driver ti] ***report*** himself to the police? (Matsubara 2008: 467)
d. Which composer did the teacher ***made*** [[a symphony of *t*] ***be played*** in the concert by his students]? (Censored.)

(89) a. Which actor did you ***see*** a friend of *t* ***talk*** to Mary? (Declerck 1983b: 115)
b. Which community have you ***seen*** a member of *t* ***walk*** naked in the park? (ibid.)
c. Which plant did you suddenly ***see*** [[an image of *t*] ***appear*** on the screen]? (Matsuyama 1999: 421)
d. Which mathematician did you clearly ***see*** [[a picture of *t*] ***fall*** in the wastebasket]? (ibid.)

Additionally, we can find more similarities between the complements of causative and perception verbs when assessing the use of floating quantifiers. Sportiche (1988) argues that the floating quantifier is an adjunct to a subject through A-movement and the quantifier can be stranded in the Spec of VP, as shown in (90).[20]

(90) a. The children can <u>all</u> do it. (Sportiche 1988: 441)
b. The children$_i$ can [$_{VP}$ [$_{QP}$ all [$_{Q'}$ t_i]] [$_{VP}$ do it]].

The syntactic phenomena can be found in the complement of the causative and perception verbs, as in (91) and (92).[21]

(91) a. John ***made*** us <u>all</u> ***laugh***. (Yagi 1987: 90)
b. John ***had*** us <u>all</u> ***laugh***. (Censored.)
c. He ***had*** [us <u>all</u> ***laughing***]. (Ando 2005: 239)

(92) a. We ***saw*** the children <u>all</u> ***leave***. (Felser 1999: 103)
b. The guard ***saw*** the prisoners <u>all</u> ***leave***. (Basilico 2003: 32)
c. I ***heard*** the little boys <u>all</u> ***begging*** for ice-cream. (Akmajian 1977: 472)
d. We ***heard*** {<u>all</u> the girls / the girls <u>all</u>} ***screaming*** with fear. (Inoue 1982: 97)
e. We ***heard*** {<u>all</u> the girls / the girls <u>all</u>} ***ask*** for hot chocolate. (ibid.)

Based on these similarities, this study assumes that the syntactic structures of causative and perception verbs are equivalent and scrutinizes the restrictions imposed on the infinitival selection in both constructions in the same way hereafter.[22]

1.2.6. The Syntactic Structure of the Complements of Causative and Perception Verbs

This paper has so far identified syntactic similarities in the complements of causative and perception verbs. This section formulates a syntactic structure for the complement of the causative and perception verbs, based on the similarities we have identified so far. First, the distribution of non-finite verbs in the complements of causative and perception verbs is almost the same, except in special cases, and the meaning of the non-finite verbs that appear in each complement is also the same, as shown in (93) and (94).

(93) a. We {***made*** / ***had***} them ***march*** into the mess hall. (completed)
(Akmajian 1977: 440)

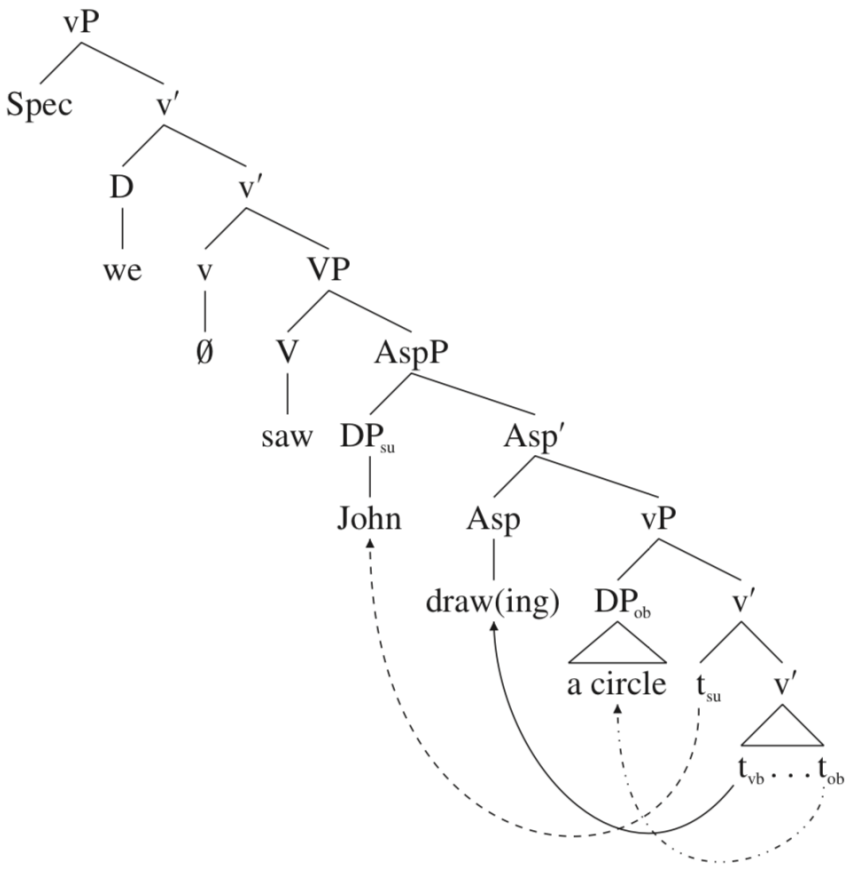
b. We ***watched*** the prisoners ***die***. (completed) (ibid.)

(94) a. We ***had*** them ***marching*** into the mess hall. (incomplete)
(Akmajian 1977: 440)

b. We ***watched*** the prisoners ***dying***. (incomplete) (ibid.)

These suggest that there is a functional category in the complements of causative and perception verbs that provides non-finite verbs with morphemes and aspectual features. Regarding the existence of the functional category for aspectuality of the non-finite verbs, Felser (1998) and Felser (1999) postulate a functional category called Aspect Phrase (AspP), as in (95).

(95)



(Felser 1999: 124)

As for the morpheme of the bare infinitival complement, although the bare infinitive seemingly lacks the morpheme, Ishii (1987) points out that an abstract inflection may be assigned to the bare infinitival complement. Furthermore, as evidence for the existence of the functional category of AspP, rather than IP or TP, as shown above, the non-finite verbs are assigned no morphemes other than those related to the aspect. For example, the bare infinitive in the complement of the causative verbs is not given inflectional affixes according to tense or person, as shown in (96).

(96) a. *John ***made*** Mary ***left***. (Matsuyama 1999: 417)
b. *John ***had*** Mary ***washed*** the dishes by the time. (Johnson 2014: 44)
c. *She didn't ***let*** me ***saw*** what she was doing. (Swan 2016[4]: §512)
d. *I {***made** / ***had** / ***let**} him ***sings***. (Censored.)

The bare infinitive in the complement of the perception verbs is also not given the inflectional affixes according to the tense or person, as shown in (97) (cf. Suzuki (1990: 191), Felser (1999: 25), Lobeck and Denham (2013: 72) and Swan (2016[4]: §110)).

(97) a. *I ***saw*** him ***left***. (Matsuyama 1999: 417)
b. *The policeman ***saw*** the prisoner ***left***. (Basilico 2003: 9)
c. *I ***heard*** him ***sings***. (Tallerman 2011[3]: 94)
d. *I ***heard*** him ***went*** down the stairs. (Swan 2016[4]: §110)

Additionally, auxiliary verbs cannot appear in the bare infinitival complement of the causative and perception verbs, as in (98) and (99) (cf. Suzuki (1990: 192) and Johnson (2014: 61)).

(98) a. *John ***made*** Bill ***can read*** the article. (Ritter and Rosen 1990: 65)
b. *We {***made** / ***had** / ***let**} him {***will** / ***might** / ***can**} ***draw*** a circle. (Censored.)

(99) a. *We ***saw*** him {***will** / ***might** / ***can**} ***draw*** a circle. (Felser 1999: 25)
b. *The policeman ***saw*** the prisoner ***can leave***. (Basilico 2003: 9)
c. *I ***see*** her ***will go*** on vacation. (Müller 2020: 57)

Based on these linguistic facts, this paper firstly assumes that the syntactic structure of causative and perception verbs has a functional category of AspP, rather than TP or IP. Secondly, we assume the possibility of the existence of a functional category called

Predication Phrase (PredP), which licenses predication relations inside the complement of causative and perception verbs. As empirical evidence for this claim, we have identified the various syntactic similarities in a predicate structure within the complement, such as the obligatory appearance of the logical subject in the complements, the distribution of the reflexive pronouns in the complements and the acceptability of the rightward and leftward movements of the elements in the complements, as demonstrated in previous sections. In light of these similarities, we assume that the syntactic structure found in the complement of causative and perception verbs is equivalent to a structure in (100) proposed by Bowers (1993) and modified by Svenonius (1996). According to this proposal, the structure of a small clause is PredP with the functional category Pred as the head, and the subject of the small clause is base-generated in the Spec of XP and moves to the Spec of PredP in order to satisfy the EPP feature of Pred.

(100) ... [$_{\text{PredP}}$ NP [$_{\text{Pred'}}$ Pred $_{\text{[EPP]}}$ [$_{\text{XP}}$ t_{NP} X']]] ...

(cf. Bowers (1993) and Svenonius (1996))

Given that the predicate relation is thus licensed by the structure PredP, the appearance of the logical subject in the complements is obligatory. Relevant examples are restated below.

(101) a. *They ***made*** [PRO ***eat*** the squid]. (Johnson 1988: 595)
b. *I ***had*** PRO ***sing*** the song. (Sheehan and Cyrino 2017: 82)
c. *She ***saw*** [PRO ***hammer*** the board]. (Johnson 1988: 595)
d. *I ***heard*** PRO ***sing*** the song. (Sheehan and Cyrino 2017: 82)

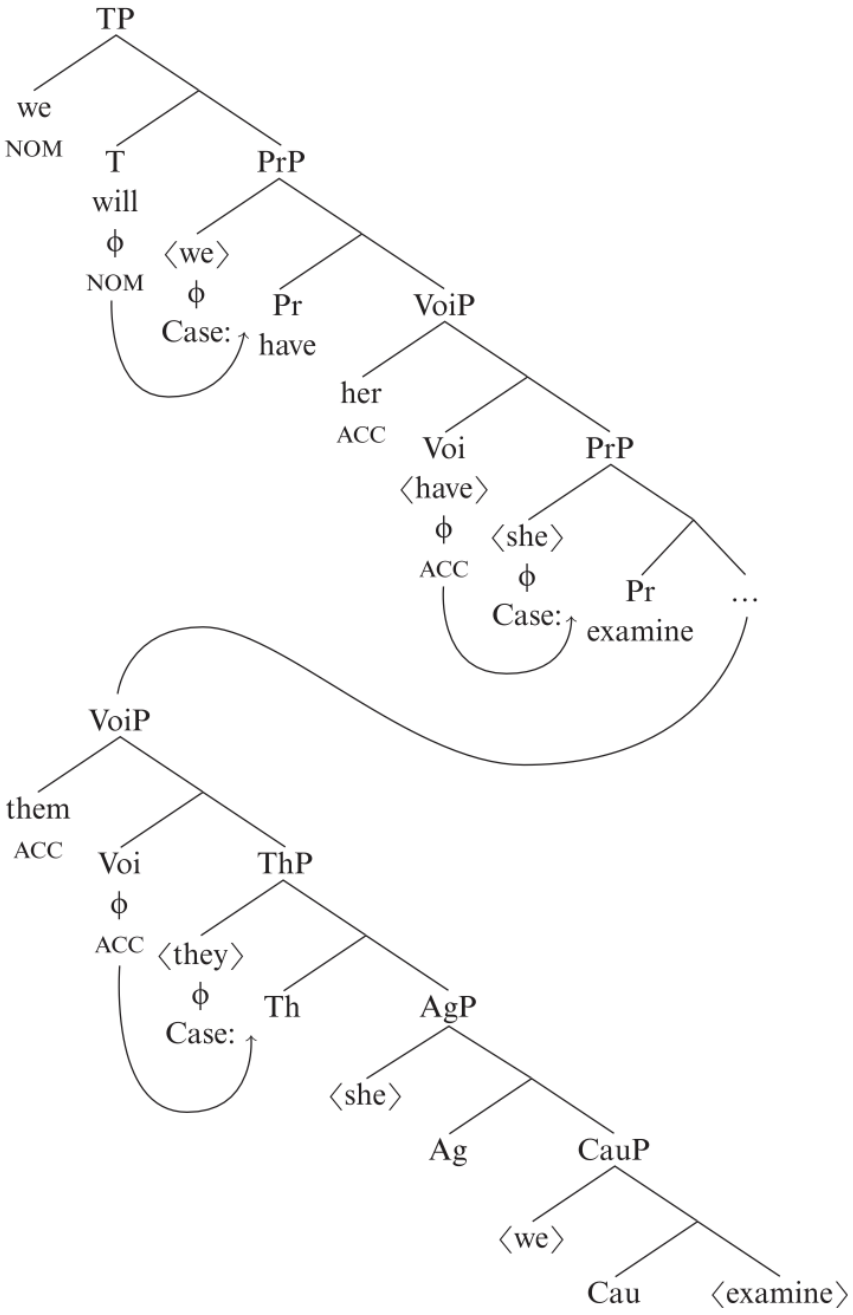
Also, movement of the elements in the complements, which make it difficult to recognize the predicate relations, is not acceptable due to the predicate license by the structure.

(102) a. *I can't ***make work*** <u>the washing machine</u>. (Swan 2016[4]: §108)
b. *He ***let walk*** <u>the people</u> on the glass. (Palmer 1965: 160)
c. *Into this room we ***saw run*** <u>Robin</u>. (Culicover 2013: 283)

(103) a. *[***Visit*** her mother every week] I ***made*** Mary. (Koopman 2000: 269)
b. ****Operate*** on the patient I ***saw*** the doctor. (Miller 2002: 257)
c. *[Mary ***visit*** John], I ***made*** _. (Matsuyama 1999: 413)
d. *[Mary ***cross*** the street], I ***saw*** _. (ibid.)

For the system of the predicate license by the structure, Bowers (2010: 153-154) posits the following structure (note that PrP here is equivalent to PredP in this discussion).[23]

(104)



(Bowers 2010: 154)

Assuming that these two functional categories (AspP and PredP) exist inside the complement of the causative and perception verbs, this paper proposes the following structure.

(105) ...[$_{PredP}$ DP$_i$ [$_{Pred'}$ Pred [$_{AspP}$ t$_i$ [$_{Asp'}$ Asp (φ, *to*-, -ing)$_j$ [$_{VP}$ t$_i$ [$_{V'}$ t$_j$]]]]]]

So far, this paper has formulated the syntactic structure of the complements of causative and perception verbs based on the similarities found in the complements, and then assumes that the choice of infinitive in the complement of the causative and perception verbs in Present-Day English is derived from the structure, as in (105).

1.3. Organization

This paper is divided into two parts, enclosed between the Introduction and Conclusion. The first part, consisting of Chapter 2, is devoted to analyzing the infinitival selection in the complement of the causative verb *make*, comparing it with that of other causative verbs. In Section 2.1, we take a closer look at the infinitival selection in the complement for the active form of causative verbs, analyzing it synchronically and revealing why the active form of a causative verb takes the bare infinitive in its complement, as in (106).

(106) a. I ***made*** John ***wash*** the dishes. (Blanco 2011: 147)
b. *I ***made*** John ***to wash*** the dishes. (ibid.)

However, according to Mustanoja (1960: 533), the infinitival selection in the complement for the active form of the causative verb *make*, as in (106), was diachronically ambiguous, as shown in (107).

(107) a. she ***maketh*** men ***mysdo*** many score tymes.
(PPI. B iii 122; Mustanoja 1960: 533)
b. þe veond hit ***makede*** me ***to don***. (Ancr. 136; ibid.)

Therefore, Section 2.2 analyzes the infinitival selection diachronically and discusses the infinitival selection in the complement for the active form of the causative verb *make*. Section 2.3 assesses why the passive form of the causative verb *make* takes the *to*-infinitive rather than the bare infinitive in the complement, as follows.

(108) a. Peter ***was made to go***. (Gisborne 2010: 111)
b.*Peter ***was made go***. (ibid.)

Section 2.4 analyzes this infinitival selection diachronically because it was also generally unstable, as shown in (109).

(109) a. Ich ***am made reproce*** up alle myn enemis,
(PMPsalter, 30, 14; Matsuse 1993: 6)
b. [al thinges ***ben***] ***maked to dwelle*** in present sight.
(Usk TL.III.IV/167-168; ibid.)

Chapter 3 is devoted to considering the infinitival selection in the perception verbs. In Section 3.1, we take a closer look at the infinitival selection in the complement for the active form of the perception verbs. Section 3.1 analyzes it synchronically and reveals why the perception verbs take the bare infinitive in their complements rather than the *to*-infinitive in the complement, as in (110).

(110) a. Bill ***saw*** Mary ***eat***. (Nunes 1995: 359)
b. *Bill ***saw*** Mary ***to eat***. (ibid.)

Section 3.2 discusses the infinitival selection diachronically, because diachronically there were examples considered ungrammatical in Present-Day English, as shown in (111) and (112).

(111) a. thus Iacob the sonne of isaac ***sawe*** a ladder ***stand*** vpon the earth,
(EEBO. 1582)
b. Mee thinkes i ***see*** a sword ***hang*** in the ayre by a twine threed, (EEBO. 1599)

(112) a. *I ***saw*** a statute ***stand*** on the corner. (Seki 1989: 93)
b. *He ***saw*** a portrait of Sapir ***hang*** on the wall. (ibid.)

Section 3.3 discusses the infinitival selection in the complement for the passive form of the perception verbs and seeks why the passive form of the perception verbs takes the *to*-infinitive in the complement rather than the bare infinitive, as follows.

(113) a. Kim ***was seen to leave*** the bank. (Huddleston and Pullum 2002: 1237)
b. *The dog ***was seen cross*** the road. (Gisborne 2010: 198)
c. John ***was heard to sing*** a song. (Felser 1999: 189)
d. *Mary ***was heard sing*** a song. (Felser 1999: 152)

Section 3.4 analyzes this infinitival selection diachronically because it was also generally unstable, as shown in (114).

(114) a. sir humphrey ***was seen come*** into the church-yard: (EEBO. 1689)
b. and therefore if he ***be seen to fly*** either within cities, (EEBO. 1634)

Chapter 4 draws together the main conclusions of the work.

Notes

[1] This paper mainly discusses the infinitival selection for the complement of the causative verbs *make* and *let* and the perception verbs *see* and *hear*. The infinitival complements for the causative verb *have* and the perception verbs such as *watch*, *look at*, *listen to*, *smell* and *feel* are excluded in the main analysis of this paper because, in their active forms, they do not take the *to*-infinitive in their complements, and they cannot be passivized regardless of the type of infinitive, as in the following examples (note that (Censored.) below is an example reflecting checks by five native English speakers).

(i) a. The doctor ***had*** his patient ***breathe*** deeply. (Baron 1977: 53)
b. *The doctor ***had*** his patient ***to breathe*** deeply. (ibid.)
c. *The children ***were had clean*** up the play room. (Bjorkman and Cowper 2013: 2)
d. *John ***was had to go***. (Ando 2008: 117)

(ii) a. We ***watched*** John ***draw*** a circle. (Felser 1999: 31)
b. *We ***watched*** John ***to draw*** a circle. (Censored.)
c. *She ***was watched cross*** the square. (Ishii 1987: 88)
d. *John ***was watched to draw*** a circle. (Felser 1999: 31)

(iii) a. I ***looked at*** that boy ***jump***. (Ishii 1987: 88)
b. *I ***looked at*** that boy ***to be*** wise. (ibid.)
c. *That boy ***was looked at jump***. (ibid.)
d. * That boy ***was looked at to jump***. (ibid.)

(iv) a. Benjamin ***listened to*** him ***drop*** his coin into the telephone. (Ishii 1987: 88)
b. *Benjamin ***listened to*** him ***to be*** wise. (ibid.)
c. *He ***was listened to drop*** his coin into the telephone by Benjamin. (ibid.)
d. *He ***was listened to to drop*** his coin into the telephone by Benjamin. (ibid.)
e. *John ***was listened*** (***to***) ***sing***. (Dixon 2005[2]: 252)

(v) a. I ***smelled*** the toaster ***burn*** the toast. (Flesher 1999: 31)
b. *I ***smelled*** the toaster ***to burn*** the toast. (Censored.)
c. *The toaster ***was smelled burn*** the toast. (Censored.)

d. *The toaster ***was smelled to burn*** the toast. (Flesher 1999: 31)

(vi) a. I ***felt*** Mary ***hit*** me with a stone. (Flesher 1999: 31)
b. *I ***felt*** Mary ***to hit*** me with a stone. (Censored.)
c. *Mary ***was felt hit*** me with a stone. (Censored.)
d. *Mary ***was felt to hit*** me with a stone. (Flesher 1999: 31)

In addition, the causative verb *let* also cannot be used in the passive form, but there are some previous studies that confirm the existence of the passive form of the causative verb *let* with the bare infinitive in its complement, as shown below. This point will be discussed in 2.3.

(vii) He ***was let die*** in a ditch and was buried by the parish.
(Kuno and Takami 2014: 132)

[2] As for the past participial complement of the causative verb *make*, although this paper does not discuss it in detail, its acceptability varies in previous studies. While some previous studies accept only the past participle of stative verbs, as in (i) and (ii), others accept the past participle of dynamic verbs, as in (iii).

(i) a. He managed to ***make*** himself ***understood*** to them. (Yagi 1987: 96)
b. John ***made*** his views ***known*** to the public. (ibid.)

(ii) a. *I ***made*** Mary ***examined*** by John. (Givón 1975: 67)
b. *John ***made Bill arrested***. (Ritter and Rosen 1993: 537)

(iii) a. He ***made*** his bike ***repaired***. (Nakamura 2018: 246)
b. The teacher ***made*** the blackboard ***cleaned*** by a pupil. (Nakajima 2006: 101)

[3] According to Tagawa (2019: 28-29), the lexical meaning of the verb *make*, which implies completion, and the present participle, which indicates imperfectivity, are semantically incompatible; therefore, (13c) is considered ungrammatical.

[4] This study excludes the passive form of the causative verb *get*, which does not take the bare infinitive in its complement, from the center of the discussion. This is because it

shows no difference in the choice of the infinitives between the active and passive form, as shown in (i).

(i) a. The doctor ***got*** his patient ***to breathe*** deeply. (Baron 1977: 53)
b. *The doctor ***got*** his patient ***breathe*** deeply. (ibid.)
c. They ***were got to be*** careful. (Haegeman 1985: 76)
d. *They ***were got be*** careful. (Censored.)

[5] As for the fact that the causative verb *let* does not take the present or past participles in its complement, when the present or past participle is taken as the complement of the causative verb *let*, the occurrence of an auxiliary verb *be* is obligatory, as shown in (i) and (ii) (cf. Quirk and Greenbaum (1973: 366), Anderson (2005: 49), Sheehan and Cyrino (2017: 83)).

(i) a. We'll ***let*** him ***be putting*** his clothes back on when Mary walks in the room. (Akmajian et al. 1979: 40)
b. Let's ***let*** Othello ***be thinking*** of his next move at this point in the play. (Gee 1977: 480)

(ii) a. We ***let*** John ***be interviewed*** by a reporter. (Akmajian et al. 1979: 42)
b. ***Let*** Mary ***be examined*** by John. (Gee 1977: 468)

Additionally, the causative verb *let* cannot take an adjective phrase in its complement, unlike other causative and perception verbs, as in (iii) and (iv).

(iii) a. *The news ***let*** me ***happy***. (Yoshida 1995: 48)
b. *She ***let*** her son ***excited*** about the game. (Kajiyama 2008: 163)

(iv) a. Her charm of manner ***made*** her ***very popular***. (Egawa 1991[3]: 26)
b. The cook ***had*** the water ***hot*** in jiffy. (Baron 1974: 308)
c. The cook ***got*** the water ***hot*** in jiffy. (ibid.)
d. I ***saw*** John ***angry*** about the matter. (Suzuki 1988: 62)

Therefore, it is assumed that the causative verb *let* cannot take a present or past participle which has an adjectival nature in its complement. However, this analysis is partially

mistaken, because the causative verb *let* took the adjective phrase in its complement, as in (v).

(v) a. i requyre you ***let*** me ***alone***: (EEBO. 1525)
b. that he doeth ***let*** them ***alone*** euen to them selfes: (EEBO. 1547)

Therefore, this paper assumes that the causative verb *let* evolved to take only the bare infinitival complement and not to take the participles due to the development of idiomatic usages of *let,* which indicate "a command to a third party" and "a prayer" in Modern English. This point will be discussed in 2.1.4.

[6] Most previous studies (such as Baron (1977: 53), Felser (1999: 56), Tsukiashi (2004: 69), Tokunaga (2004: 723), Swan (2005^3: 314), Dixon (2005^2: 199), Nakamura (2018: 246) and Tagawa (2019: 28-29)) also consider the present participial complement of the causative verb *make* to be ungrammatical, but the use of *make NP -ing* was found diachronically, as in (i). Regarding the usage, Visser (1973: 2346) states that it is common to replace *make* with other causative verbs such as *have* and *get* in Present-Day English. The OED presents an obsolete idiomatic expression as in (i), and Visser only gives examples up to 1681. According to Suematsu (2004a: 25; 2004b: 127), one example is found in Jane Austen's work, and it is a remnant of an old usage, as shown in (ii). However, Phillipps (1970: 112) states that Austen used the progressive form unprecedentedly and characteristically. Therefore, it is possible that the present participle in (ii) is also an Austen-specific expression.

(i) If you woulde ***make*** your hawke ***fleing*** to the Partridge, or Feasant, when she is reclaimed and made, then [etc.].
(1575. G. Turberville Bk. *Faulconrie* 122; OED. *make*, *v.*1. 65a)

(ii) By supposing such an affection, you ***make*** every body ***acting*** unnaturally and wrong, and me most un happy.
(Jane Austen. *Pride and Prejudice*; Suematsu 2004a: 25)

Furthermore, Visser (1973: 2346) reports that the present participial complement of the causative verb *make* existed from Old English to Modern English, although few examples are given. As a similar expression, Ringe and Tyler (2014) provide an example of the

present participial complement of the causative verb *do* as in below, but they state that it is quite rare.

(iii) a. and, God, ***gedo*** [me ***lufiende*** and onfundne þines wisdomes]
and God make me loving and knowledgeable your wisdom
'and, God, make me loving and knowledgeable about your wisdom'
(cosolilo,Solil_1:14.4.176; Ringe and Tyler 2014: 500)

b. Þær hy ***gedydon*** [ðæt cild ***sprecende*** þæt ne wæs anre nihte eald]
there they made the child speaking which NEG was one night old
'there they made the child speak, which was not one night old'
(comart3,Mart_5_[Kotzor]:Oc28,A.9.2067; ibid.)

[7] According to Yamakawa (1963: 95), the causative verb *let* co-occurred with the present participial complement when used in the sense of *leave*, as in (21a).

[8] According to Konishi (2006: 700), comparing the bare infinitive with the present participle, their meanings are almost the same. Regarding the present participial complement as in (ia), it refers to a specific action and means "Now I won't let you do that," whereas the bare infinitive – as in (ib) – refers to a general action and means "In any case, I won't let you do such a thing."

(i) a. I won't ***HAVE*** him ***doing*** such a thing. (Konishi 2006: 700)
b. I won't ***HAVE*** him ***do*** such a thing. (ibid.)

[9] Mitchell (2009: 69) states that bare infinitival complements of the perception verbs represent evidential modality and bare infinitival complements of the causative verbs represent deontic modality. This analysis will be discussed in detail in the following chapters.

[10] As for these similarities between the bare infinitive and the simple past tense in the aspectual property of the perfectivity, Palmer (1987^2) and Murphy (2004) suggest that the bare infinitival complement in (ia) and (iia) is paraphrasable with the simple past tense in (ib) and (iib) respectively.

(i) a. He ***had*** them ***beat*** the carpet. (Palmer 1987^2: 175)
b. They <u>beat</u> the carpet. (Palmer 1987^2: 176)

(ii) a. I ***saw*** Tom ***get*** into his car and drive away. (Murphy 2004: 134)
b. Tom got into his car and drove away. + I saw this. (ibid.)

[11] However, Kishino (1987) provides a counterexample, as shown in (i).

(i) Elisa, squatting on the ground, watched to ***see*** the crazy, loose-jointed wagon ***pass*** by. But it didn't pass. It turned into the farm road in front of her house, crooked old wheels skirling and squeaking.
(J. Steinbeck, *The Chrysanthemums*; Kishino 1987: 141)

Additionally, if a perceptual event occurs in the future, it can be denied.

(ii) a. We will never ***see*** John ***leave***, but John may or may not leave.
(Safir 1993: 57)
b. We will probably ***see*** John ***leave***, but he may or may not leave. (ibid.)
c. We would like to ***see*** John ***leave***, but he may or may not leave. (ibid.)

[12] Contrary to these analyses, some previous studies do accept the following examples. This acceptability can be a counterexample to the similarity between the causative and perception verbs. These exceptions will be discussed in detail in 2.1.3.

(i) a. Her early trauma ***made*** Mary ***seek*** therapy later in life. (Safir 1993: 59)
b. We can't now ***let*** Gazza ***play*** for England in the future. (Felser 1999: 54)
c. ??Yesterday I ***made*** John ***leave*** tomorrow. (Franks and Hornstein 1992: 45)
d. He ***made*** him ***leave*** on Wednesday on Tuesday. (Anderson 2005: 35)

[13] As for these similarities between the present participial complement for the perception verbs and progressive form in the aspectual property of the imperfectivity, Dietrich (1975), Kurokawa (1986), Palmer (1987[2]: 175-176), Murphy (2004: 134) and Kashino (2010: 407-408) suggest that the present participial complement in (ia) and (iia) is paraphrasable with the progressive form in (ib) and (iib) respectively.

(i) a. I ***saw*** Tom ***going*** to school. (Kurokawa 1986: 180)
b. I saw Tom. He ***was going*** to school. (ibid.)

(ii) a. Bruth ***heard*** a clock ***ticking*** in the next room. (Kurokawa 1986: 180)
b. A clock ***was ticking*** in the next room. Bruth heard it. (ibid.)

However, Kurokawa (1986: 160) states that (ib) and (iib) are very subjective and sometimes sound odd because they emphasize the fact of what is seen, heard, or felt. In contrast, (ia) and (iia) are objective and often used in daily life. Palmer (1987[2]: 175-176) and Swan (2005[3]: 209) also state that (iii) implies (iv).

(iii) a. John ***has*** the water ***running*** in the bathtub. (Dietrich 1975: 174)
b. He ***had*** us ***clapping*** our hands. (Kashino 2010: 132)

(iv) a. John ***is running*** the water in the bathtub. (Dietrich 1975: 174)
b. We ***were clapping*** hands as the result of what he said, done, etc. (Kashino 2010: 132)

Besides, according to Wood (1962: 133-134), *have NP -ing* is used in order to refer to something that has already happened, which is similar to the preliminary process or preceding state found in the progressive form (cf. Sato (2014: 101) and Kira (2018: 199-200)).

[14] Regarding the fact that the present participial complement of the perception verbs indicates progressive meaning, despite the absence of the copula *be*, Higginbotham (2009: 144) states that (ib) is odd, because Nolan Ryan cannot pitch two games simultaneously, comparing (ia) and (ib).

(i) a. I ***saw*** Nolan Ryan ***pitch*** two no-hitters. (Higginbotham 2009: 144)
b. I ***saw*** Nolan Ryan ***pitching*** two no-hitters. (ibid.)

[15] However, it is said that there is an environment in which this type of expression can be acceptable. Butters and Stettler (1986) and Johnson (2014: 43-44) show the acceptability of the causative verb *have* followed by *for* + *NP* + *to-infinitive* for some speakers in North Carolina and states that this configuration is also acceptable in the Appalachian English of Eastern Kentucky.

(i) John ***had*** <u>for Mary</u> ***to wash*** the dishes. (Johnson 2014: 44)

[16] Regarding the semantic differences between *let go of NP* and the causative verb *let*, Bolinger (1971) and Givón (1993; 2001) provide the following examples, as in (i) and (ii).

(i) a. ***Let go of*** him. (Release him from your grasp.) (Bolinger 1971: 80)
b. ***Let*** him ***go***! (Don't detain him.) (ibid.)

(ii) a. She ***let go of*** him like a sack of potatoes. (Givón 2001: 46)
b. *She ***let*** him ***go*** like a sack of potatoes. (ibid.)
c. She ***let*** him ***go*** on his own. (Givón 1993: 10)
d. *She ***let go of*** him on his own. (ibid.)

Furthermore, the logical subject in the complement of the causative verb *let* is restricted to the noun phrase which is animate.

(iii) a. ***Let go (of)*** my leg! (Bolinger 1971: 120)
b. ****Let*** my leg ***go***! (ibid.)
c. ?She ***let*** his arm ***go***. (Givón 1993: 10)

[17] As for the origin of *let go of NP*, according to Konishi (1974: 729), Konishi (1993: 359), Ando (2005: 219) and Muraoka (2022b: 42)), *let go of NP* is a contraction of *let go one's hold of NP*, as in (i).

(i) a. he ***let go*** <u>his hold of y helme</u> &; (EEBO. 1560)
b. yet god would not ***let goe*** <u>his hold of him</u>, (EEBO. 1635)
c. and who was loth to ***let go*** <u>his hold of the princess</u> (EEBO. 1652)
d. But you never really mean to ***let go*** <u>your hold of them</u>.
(Shaw, *Man and Superman*; Ando 2005: 219)

Besides, Wood (1964: 138) and Ando (2005: 219) also mention the possibility that this form arose from an analogy of "take hold of." Based on the views of these previous studies, this paper assumes that *let go of NP* may have idiomaticalized through the following process.

(ii) let one's hold of NP go / let go one's hold of NP
↓ Heavy NP Shift
let go one's hold of NP → Obsolete
↓ Reduction
let go of NP

Regarding the (non-)occurrence *of* in *let go of NP,* as in (iii), see Muraoka (2022b).

(iii) a. He ***let go*** the ball. (Santorini and Heycock 1988: 7)
b. ***Let go*** (***of***) my leg! (Bolinger 1971: 120)
c. *She ***let go*** it. (Santorini and Heycock 1988: 7)
d. She ***let go of*** him. (Givón 2001: 46)

[18] For further minimalist analysis for the binding principle in the complements of causative and perception verbs, see Saito (2020) and Muraoka (2021b).

[19] As a similar structure, sentence adverbs and disjuncts do not appear in the complements of causative and perception verbs (cf. Koopman (2000: 267), Kuwabara and Matsuyama (2001: 122-123) and Miller (2002: 247)).

(i) a. *They {***made** / ***let***} [him, {frankly / ironically / wisely / clearly} ***eat*** the ice cream]. (Okada 1985: 158)
b. *I ***saw*** [the man, {candidly / amazingly / wisely / certainly}, {***cross*** / ***crossing***} the street]. (ibid.)

In addition, parenthetic clauses in the complements of causative and perception verbs are not acceptable.

(ii) a. *They {***made** / ***let***} [him, it turned out, ***eat*** the ice cream]. (Okada 1985: 238)
b. *I ***saw*** [the man, he said, {***cross*** / ***crossing***} the street]. (ibid.)

[20] As Basilico (2003) points out, the appearance of the floating quantifiers is not always evidence of the movements. The following examples are cases in point.

(i) a. *The children were seen <u>all</u>. (Basilico 2003: 31)
b. *The ice cubes froze <u>all</u>. (ibid.)

c. The children were all seen. (ibid.)
d. The ice cubes all froze. (ibid.)

If the subject of such a sentence starts out in the object position and then is raised to the subject position, (ia) and (ib) would be grammatical. Instead, the quantifier is required to appear preverbally, as in (ic) and (id). Furthermore, there is no position to which the subject *the children* in (ii) could move.

(ii) The children all are sleeping. (Basilico 2003: 32)

The following examples are also not considered to be grammatically correct.

(iii) a. ??The guard ***saw*** the prisoners almost all ***leave***. (Basilico 2003: 32)
b. ??John ***made*** us almost all ***laugh***. (Censored.)

Furthermore, Belletti (2008: 66) shows differences in acceptability with respect to the position of the quantifier, as shown in (iv).

(iv) a. I ***made*** [my parents ***both be*** happy] (Belletti 2008: 66)
b. *I ***made*** [my parents ***be both*** happy] (ibid.)

[21] There are some cases where the quantifiers are not stranded, as shown in (i).

(i) a. John ***made*** all the little boys ***laugh***. (Censored.)
b. John ***had*** all the little boys ***laughing***. (Censored.)
c. I ***heard*** all the little boys ***beg*** for ice-cream. (Censored.)
d. I ***heard*** all the little boys ***begging*** for ice-cream. (Akmajian 1977: 472)

[22] However, in terms of VP ellipsis, it is difficult to demonstrate the similarity found in the complements of the causative and perception verbs. In the case of the causative verbs *make* and *let*, VP ellipsis in their complements is permitted, as shown in (i) and (ii).

(i) a. I ***made*** John ***do*** it and Mary ***made*** him, too. (Inoue 1983a: 98)
b. Why did you clean the floor? Because she ***made*** me. (Mittwoch 1990: 113)
c. George buys a new suit only when his wife ***makes*** him (***buy*** one).

(Egawa 1991[3]: 493)

d. Mary will ***make*** John ***leave***, but I don't think she'll ***make*** Rex.
(Iveland 1993: 17)

e. They ***made*** Max ***clean*** the toilets but they can't ***make*** me φ.
(Potsdam 1998: 160)

(ii) a. I ***let*** John ***do*** it and Mary ***let*** him, too. (Inoue 1983a: 98)

b. We wanted to play on the bank, but mother wouldn't ***let*** us (***play*** there).
(Egawa 1991[3]: 493)

c. I was going to be a neo-deconstructivist but mom wouldn't ***let*** me φ.
(*Calvin and Hobbes*. July 12, 1995; Potsdam 1998: 160)

d. John wanted to eat beef, so I ***let*** him. (Kuno and Takami 2013: 83)

e. He'd eat chocolate all day long if I ***let*** him. (OALD[6])

However, in the complement of the causative verb *have,* VP ellipsis does not occur.

(iii) a. *I ***had*** John {***do*** / ***doing***} it and Mary ***had*** him too. (Inoue 1983a: 97)

b. ??Mary will ***have*** Max ***stay***, but I don't think she'll ***have*** Sue.
(Iveland 1993: 17)

c. *We ***had*** the gardener [$_{VP}$ ***mow*** the lawn] but we should ***have*** the kids φ.
(Potsdam 1998: 122)

d. *I ***had*** him ***leave*** the house. I feel awfully sorry, but I ***had***.
(Evelyn 2021: 117)

e. *Tom was worried that he might ***have*** the police officers ***search*** his house, but their boss didn't. (Sugimoto 2022: 267)

Furthermore, in the complement of perception verbs, previous studies show differences in acceptability, as in (iv) (cf. Haegeman and Guéron (1999:165)).

(iv) a. I ***saw*** you ***try*** to hit that little girl and Mary ***saw*** you too. (Inoue 1983a: 97)

b. I ***saw*** John ***jumping*** and Mary ***saw*** him too. (ibid.)

c. Speaker A: Have you ever ***heard*** him ***play*** the piano?
Speaker B: *Yes, I ***heard*** him φ. (φ = play the piano)
(Kuno and Takami 2013: 83)

d. Speaker A: When the earthquake happened, did you ***feel*** the earth ***move*** under you?
Speaker B: *Yes, I ***felt*** the earth φ. (φ =move)
(Kuno and Takami 2013: 83-84)

[23] Regarding when these functional categories arose, this paper assumes that it was during the Modern English period. First, the structure of the PredP seemed to have developed in Early Modern English. As proof of this, according to Tanaka (2003: 298; 2010: 389) and Tanaka and Yokogoshi (2010: 247), the emergence of expletives in the complement was established in Modern English. As for the evidence for the rise of the PredP in Early Modern English, there are some cases of scrambling of the elements in the complement in early English, as in (i).

(i) a. Hwīlum heaþo-rōfe ***hlēapan lēton***, on ġeflit ***faran*** fealwe
Sometimes battle-brave gallop let into contest travel yellow-green
mēaras,
horse
'Battle-brave sometimes let yellow-green horse gallop and travel into contest.' (Beowulf. 864-865)
b. And I ***herde goynge***, bothe up and doun, Men, hors, houndes, and other
and I heard going both up and down men horses hounds and other
thyng;
thing
'And I heard men, horses, hounds and other things going up and down.'
(Geoffrey Chaucer, *The Book of Duchess*, 384-389; Yamakawa 1963: 93)

These examples are common, due to the morphological agreement between the logical subject and the non-finite verbs in the small clause, as demonstrated in 2.2.1 and 3.2.1. However, because the morphological agreement was lost due to the loss of morphemes of person and case in Middle English, it is assumed that these examples cannot be found in Modern English, and that the functional structure of the PredP developed in Early Modern English and the system of the predicate license by the structure became common.

Secondly, this paper assumes that the structure of the AspP was also established in Late Modern English. As proof of this, firstly, the instability in the choice of the infinitival complements of the causative verb *make* in (107) disappears after Late Modern English, and the causative verb *make* takes only the bare infinitive in its complement. Secondly,

in Old English (=(ii)), Middle English (=(iii)) and Early Modern English (=(iv)), there are some uses of the bare infinitival complement of the perception verb *see* that are not grammatically correct in Present-Day English, as in (v). These issues will be discussed in detail in 3.2.

(ii) a. ac mē ġeūðe ylda Waldend, þæt iċ on wāge ***ġeseah*** wlitiġ | ***hangian*** ealdsweord ēacen (Beowulf. 1661-1663a)

b. ***Ġeseah*** ðā siġe-hrēðiġ, þā hē bī sesse ġēong, mago-þeġn|mōdiġ, māððumsiġla fealo, gold glitinian grunde ġetenġe, wundur on wealle, ond þæs wyrmes denn ealdes ūht-flogan, orcas ***stondan***, (Beowulf. 2756-2760)

c. Swylċe hē ***siomian ġeseah*** seġn eall-gylden hēah ofer horde, hond-wundra mæst, ġelocen leoðo-cræftum; (Beowulf. 2767-2769a)

(iii) a. And by adventure and grace he ***saw*** hys swerde ***ly*** on the erthe $naked, where in the pomell was a rede crosse and the sygne of the crucifixe $therin, (CMMALORY, 669. 4953)

b. And than he ***sawe*** a fayre swerde ***lye*** by the dede knyght, (CMMALORY, 203. 3285)

c. and he ***sawe lye*** on the grounde a large feaute of bloode. (CMMALORY, 201. 3216)

(iv) a. thus Iacob the sonne of isaac ***sawe*** a ladder ***stand*** vpon the earth, (EEBO. 1582)

b. wee haue ***seene*** the axe ***lie*** at the roote of our greatest cedars, (EEBO. 1606)

c. Mee thinkes i ***see*** a sword ***hang*** in the ayre by a twine threed, (EEBO. 1599)

(v) a. *I ***saw*** the ladder ***lean*** against the side of the house. (Kirsner and Thompson 1976: 220)

b. *I ***saw*** the lamp ***stand*** on the table. (Akmajian 1977: 440)

c. *He ***saw*** a portrait of Sapir ***hang*** on the wall. (Seki 1989: 93)

2. Infinitival Selection in the Complements of Causative Verbs

2.1. Synchronic Analysis on Infinitival Selection in the Complements for the Active Forms of Causative Verbs

2.1.1. Perfectivity

As demonstrated in 1.1, causative verbs such as *make*, *have* and *let* take the bare infinitive in their complements, as shown in (1).

(1) a. I ***made*** John ***wash*** the dishes. (Blanco 2011: 147)
b. The doctor ***had*** his patient ***breathe*** deeply. (Baron 1977: 53)
c. We ***let*** John ***draw*** the circle. (Felser 1999: 17)

Regarding these bare infinitives, Akmajian (1977) states that they indicate perfectivity, as in (2). According to Palmer (1987[2]: 175-176), (3a) implies (3b).[1]

(2) a. We ***made*** them ***march*** into the mess hall. (completed) (Akmajian 1977: 440)
b. We ***had*** them ***march*** into the mess hall. (completed) (ibid.)

(3) a. He ***had*** them ***beat*** the carpet. (Palmer 1987[2]: 175)
b. They beat the carpet. (Palmer 1987[2]: 176)

As demonstrated in 1.2.2, the simple past tense also indicates perfectivity, so it cannot be followed by a negative expression which cancels that perfectivity, as in (4).

(4) a. She ***was drowned***. (completion) (Declerck 1981: 97)
b. *She ***was drowned*** but I rescued her. (ibid.)

The evidence that the bare infinitival complement indicates perfectivity can be demonstrated through (5). The bare infinitive indicates perfectivity, so it cannot be followed by a negative expression which cancels the perfectivity or completeness of the bare infinitive.[2]

(5) a. *She ***made*** him ***shave*** but he refused. (Givón 2001: 45)
b. *Johnson ***had*** Mary ***do*** the work, but she couldn't because something important came up. (Hayase 2002: 208)
c. *?I ***let*** him ***do*** it, but he didn't do it. (Duffley 1992: 85)

d. *I ***let*** John {***do*** / ***say***} foolish things, but he didn't {do / say} them.
(cf. da Silva 2007: 172)

2.1.2. Simultaneity

In addition to this aspectual property of perfectivity or completeness, the bare infinitival complement indicates simultaneity with the tense of the matrix verb. As proof of this, some previous studies provide the following examples. Given that the bare infinitive indicates simultaneity, it cannot be used with adverbs which indicate time gapping, as in (6).

(6) a. *John ***made*** Bill ***leave*** tomorrow. (Hornstein 1990: 154)
b. *At 6 o'clock, John ***made*** Bill ***leave*** at 7 o'clock. (Hornstein 1990: 155)
c. *Last night she {***made*** / ***let***} him ***go*** tomorrow. (Mittwoch 1990: 118)
d. *Last week Jim ***let*** her ***leave*** next month. (Čakányová 2019: 29)
e. *Yesterday the teacher ***had*** students ***play*** on the ground today.
(Hayase 2002: 208)

Due to simultaneity, a perfect infinitive cannot appear in the bare infinitival complement, as in (7); it is pragmatically impossible to give commands or instructions retroactively in the past.[3]

(7) a. *They ***made*** the children ***have finished*** their homework. (Zagona 1988: 50)
b. *Rex ***made*** his son ***have gone*** to the neighbors by the time his mother got back. (Iveland 1993: 7)
c. *I'll ***make*** my child ***have cleaned*** the house by Wednesday.
(Blanco 2011: 137)
d. *John ***had*** Mary ***have washed*** the dishes by the time… (Johnson 2014: 44)
e. *We ***let*** him ***have eaten*** supper by 4 o'clock. (Akmajian et al. 1979: 41)

This acceptability is analogous to that of the perfect form of imperative sentences. The perfect form of imperative sentences is ungrammatical because it is also pragmatically impossible to give commands or instructions retroactively in the past, as in (8), except in special cases, such as negative imperatives: "Don't ***have crashed*** the car again!" (cf. Jary and Kissine (2014: 262)).

(8) a. ***Have finished*** *War and Peace*. (Culicover 1971: 77)
b. ***Have taken***. (Palmer 1987[2]: 34)
c. ***Have been*** taking. (ibid.)
d. ?***Have checked*** the facts. (Takahashi 2012: 129)

Commands and directions for past situations are also ungrammatical and not limited to the perfect form, as in (9).

(9) a. ***Come*** yesterday. (Quirk et al. 1985: 828)
b. ***Go*** to school {now / tomorrow / *yesterday}. (Hornstein 1990: 33)
c. ***Finish*** your homework yesterday. (Han 2011: 1790)
d. ***Turn*** up yesterday. (Jary and Kissine 2014: 142)

However, a perfect infinitive that does not indicate time gapping, i.e., a perfect infinitive that indicates the future or emphasizes perfectivity (cf. Araki et al. (1977: 346)), is grammatical. The perfect infinitive usually co-occurs with adverbial phrases denoting the future, as in (10).

(10) a. In order to use a word properly, one ***must***$_{R}$ ***have acquired*** the underlying concepts. (Araki et al. 1977: 346)
b. You ***must***$_{R}$ ***have completed*** the work by the next April. (ibid.)
c. We hope ***to have finished*** the job by next Saturday. (=… that we will have finished…) (Swan 2016[4]: §90)
d. But in August, just before setting off for a month in Switzerland, he still hoped ***to have finished*** a draft of the third act by the end of the year. (BNC. W_biography.)

Although Tanaka and Terada (2004) partially deny the acceptability, as in (11d), the perfect infinitive in the bare infinitival complement can be also grammatical when it is used in an imperative sentence of a causative verb and co-occurs with an adverbial phrase indicating the future, as in (11a-c). In such a sentence, the matrix verb and the perfect infinitive in the bare infinitival complement both refer to the same future time, which means that the two actions occur simultaneously, so these examples are acceptable.

(11) a. Please, God, ***make*** him ***have arrived,*** by the time I get there.
(Kayne 1984: 43)
b. Please ***make*** there ***have been*** a mistake. (ibid.)
c. Please ***let*** him ***have arrived***, by the time I get there. (ibid.)
d. ?*Please ***have*** him ***have arrived***, by the time I get there.
(Tanaka and Terada 2004: 153)

Furthermore, the perfective form of the imperative sentences can be grammatical in the instance where it denotes not the past but the future, or emphasizes the perfectivity of the event, as shown in (12).

(12) a. Start the book and ***have finished*** before you go to bed.
(Quirk et al. 1985: 827)
b. ***Have finished*** *War and Peace* by tomorrow. (Culicover 1971: 77)

Gee (1975: 358, 375) and Takahashi (2004: 111; 2012: 132) state that the occurrence of the *be + present participle* in the bare infinitival complement is also ungrammatical, as in (13).

(13) a. *The movie ***made*** her ***be crying***. (Takahashi 2012: 132)
b. *The heat of the summer will ***make*** the rice ***be growing***. (ibid.)
c. *I ***let*** Diane ***be kissing*** him. (Gee 1975: 358)
d. *I cannot ***let*** sentiment ***be entering*** into business. (Takahashi 2012: 132)
e. *I ***had*** John ***be preparing*** for the party. (Gee 1975: 375)
f. *I ***had*** him ***be typing*** my letter. (Takahashi 2012: 132)

The progressive forms indicate the events leading up to the event that the present participles denote (i.e., the preliminary process or preceding state) (cf. Sato (2014: 101) and Kira (2018: 199-200)). The progressive form has generally been considered to represent a temporal frame before and after the reference time (cf. Jespersen (1931: §12.5 (4)) and Leech (2004[3]: 22)). On the other hand, Sato (2014: 101) and Kira (2018: 199-200) state that the temporal frame before the reference time is necessary, while the temporal frame after the reference time is not, as in the following examples.

(14) a. The plane ***was landing*** when it exploded in midair (so it didn't land).
(Rothstein 2004: 39)
b. When the electricity went off they ***were watching*** TV. (Hirtle 2007: 202)

In these examples, it is clear that the situation after the reference time is not shown because of the extra-linguistic knowledge that it is not possible to watch TV after a power failure or to land a plane after it explode (cf. Sato (2014: 100)). According to Williams (2002: 218) and Sato (2014: 116), the progressive form is not used for actions or events that occur for the first time at the reference time. In causative verbs, because it is impossible to go back in time and to give instructions to someone else, the bare infinitival complement with the *be + present participle* is not grammatically correct, as in (13). The same is true for progressive imperatives. The use of the progressive form in imperatives is usually considered ungrammatical, as shown in (15), except in special cases, such as negative imperatives, as in (16), because it is impossible to go back in time and to give instructions to someone else.

(15) a. ***Be standing*** now! (Suzuki and Yasui 1994: 251)
b. ???***Be working*** hard for your exams! (Kira 2018: 162)

(16) a. Don't ***be crying***! (Ando 2005: 880)
b. Tush, Janet, woman, don't ***be weeping***.
(Montgomery, *Kilmeny of the Orchard*.; ibid.)
c. Well don't ***be fucking*** around sorting things out.
(Jary and Kissine 2014: 262)

However, even the *be + present participle* can be grammatical in the bare infinitival complement of the causative verbs when it co-occurs with (auxiliary) verbs and the adverbial phrases indicating the future, as in (17).[4]

(17) a. Dear God, {***make*** / ***have***} it ***be raining*** when I get back. (Gee 1975: 350)
b. Let's ***let*** Othello ***be thinking*** of his next move at this point in the play.
(Gee 1977: 480)
c. We'll try to ***make*** him ***be singing*** "Coming through the Rye" when Mary walks in the room. (Akmajian et al. 1979: 40)
d. We'll ***let*** him ***be putting*** his clothes back on when Mary walks in the room.

(ibid.)

e. John ***makes*** Bill ***be shelving*** books whenever the boss walks in.

(Ritter and Rosen 1993: 536)

f. We ***made*** Ruth ***be writhing*** in pain to give Sharon a good scare.

(Iveland 1993: 7)

Progressive imperatives (which are generally ungrammatical) also become grammatical when they co-occur with the adverbial phrases indicating the future, as shown in (18).

(18) a. ***Be working*** busily when the boss comes in. (Joos 1964: 31)

b. ***Be preparing*** the dinner when he comes in. (Quirk et al. 1972: 402)

c. ***Be studying*** your Spanish when I get home! (Akmajian et al. 1979: 37)

d. ***Be doing*** this exercise this afternoon while I go and see the headmaster.

(Williams 2002: 52)

In this way, (17) are acceptable because both the matrix verb and the *be + present participle* in the bare infinitival complement indicate the future, and the two actions occur simultaneously. Such an acceptability suggests that the bare infinitival complement of the causative verbs indicates simultaneity with the matrix verb as well as perfectivity.

However, contrary to these analyses, some previous studies accept the following examples. In these examples, the matrix verb and the bare infinitival complement each indicate a different reference time.

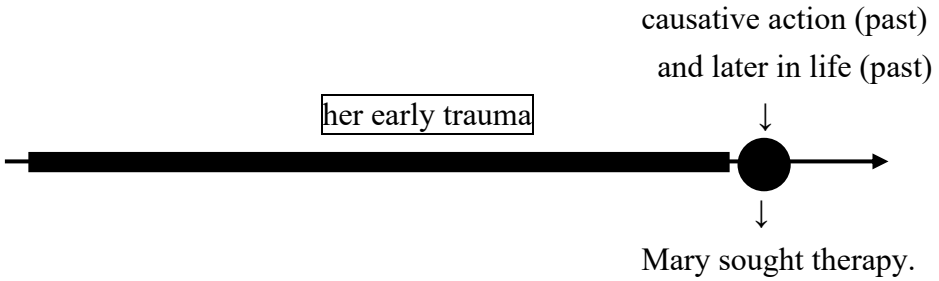
(19) a. Her early trauma ***made*** Mary ***seek*** therapy later in life. (Safir 1993: 59)

b. We can't now ***let*** Gazza ***play*** for England in the future. (Felser 1999: 54)

According to Kubota (2008: 22; 2013: 84) and Tsubomoto (2009: 12), the bare infinitival complement of causative verbs also can be used in the situation where there is no time gap between the action of the causer and the action of the causee, or the action of the causer and the action of the causee are "conceptually" simultaneous. This is even true if there is a time gap between the two actions (for example, the action of the causee is promised to be fulfilled at some point in the future at the same time as the action of the causer is performed). This conceptual simultaneity can seemingly explain the acceptability of (19b), but it cannot explain the acceptability of (19a). This is because it is hard to imagine that the causative event was realized at the same time the trauma was formed. According to the Cambridge Dictionary, trauma is a severe and lasting emotional

shock and pain caused by an extremely upsetting experience, or a case of such shock happening. As such, the time of the causative action and that of the adverbial phrase *later in life* appear to be the same point in time. Therefore, (19a) does not seem to violate the simultaneity constraint, as demonstrated in Figure 1.

Figure 1. A Temporal Schema of (19a)



Alternatively, in the case of (19b), the subject *we* is considered to be the director or CEO. Thus (19b) implies that at the same time as the director's instruction or CEO's decision-making, Gazza cannot play matches for England in the future. This means (19b) is considered acceptable because it denotes that the action of the causer and the action of the causee happen conceptually simultaneously, even if there is a time gap between the two actions, as Kubota (2008; 2013) and Tsubomoto (2009) state. Therefore, the idea of conceptual simultaneity seems reasonable, since the conceptual simultaneity may explain the acceptability of (19b). However, it cannot explain the acceptability of (6), so the next section proposes the feature of controllability as an alternative proposal to the conceptual simultaneity.

2.1.3. Controllability

In Franks and Hornstein (1992: 45), the judgement of Hornstein (1990) is changed, as shown in (6a-b) and (20a). Other previous studies also provide some examples, as shown in (20b-d).

(20) a. ??Yesterday I ***made*** John ***leave*** tomorrow. (Franks and Hornstein 1992: 45)
b. */??Yesterday John ***had*** Bill ***wash*** his car at three today. (Yanagi 2003: 117)
c. ?Yesterday John ***made*** Bill ***wash*** his car at three today. (ibid.)
d. He ***made*** him ***leave*** on Wednesday on Tuesday. (Anderson 2005: 35)

Comparing the acceptability of (6), (19b) and (20), the necessity of the conceptual simultaneity appears dubious, because it cannot explain the acceptability of (6) and (20). In other words, the conceptual simultaneity cannot explain what extent of time differences is acceptable and it is unclear what circumstances the conceptual simultaneity must be under in order to function. This paper proposes that the non-simultaneity or conceptual simultaneity in the causative event, as seen in (6), (19b) and (20), is acceptable only when the subject as the causer can control the occurrence of the causative event at will. Thus, several cases have been identified in which the causer's controllability can be deemed necessary as an alternative to the conceptual simultaneity. Rothstein (2004) presents the following examples (cf. Rothstein (1999: 365) and Yanagi (2003: 117)). In (21), there is time gapping between the action of the causer indicated by the matrix verb and the action of the causee indicated by the bare infinitive, but it is assumed that such a time difference is allowed because the subject in the main clause – *the witch* – can freely control causative events by using magic spells. Therefore, it is assumed that theses expressions are grammatical due to the semantic feature in the matrix clause: *controllability*.

(21) a. Yesterday the witch ***made*** John ***build*** a tower last night and ***destroy*** it this morning. (Rothstein 2004: 159)
b. Yesterday the witch ***made*** John ***arrive*** last night and ***leave*** this morning. (ibid.)
c. Yesterday the witch ***made*** John ***run*** last night and ***sleep*** late this morning. (ibid.)
d. Yesterday the witch ***made*** John ***know*** the answer last night and ***forget*** it this morning. (ibid.)
e. Yesterday the witch ***made*** John ***be*** clever last night and ***be*** stupid this morning. (ibid.)

A similar example can be seen in (22). As mentioned in 2.1.2, neither the perfect infinitive nor the *be* + *present participle* can be used in the bare infinitival complement, except in cases where it denotes the future or is used with verbal or adverbial phrases indicating the future. However, in (22), the perfect infinitive and *be* + *present participle* in the bare infinitival complement are acceptable when they co-occur with a subject that can control the causative event at will, such as *the writer*, *the director*, or *the conductor*.

(22) a. The writer ***had*** the protagonist ***have been married*** three times.
(Bjorkman and Cowper 2013: 5)
b. The director ***has*** the chorus ***be singing*** when the show starts.
(Bjorkman and Cowper 2013: 2)

Gee (1977: 480), Tanaka and Terada (2004: 157) and Johnson (2014: 23) argue that the progressive form can be used in the bare infinitival complement of the causative verb *have* in cases such as the instructions given in drama or on stage.

(23) a. We'll ***have*** John ***be thinking*** of her long lost love at the opening of Act II here. (Gee 1977: 480)
b. During the play, Mary ***had*** the frogs ***be entertaining*** the dwarfs.
(Johnson 2014: 23)

Wada (2019: 317) states that since the world under consideration is fictional, the writer of stage directions (i.e., specific scenes) is therefore considered omniscient. As the result, it can be inferred that the expressions denoting the time gap, as seen in the examples above, would be acceptable when the subject in the main clause – the causer – can control the causative event at will. This controllability of the subject or causer of the causative verb is also confirmed in the following examples. According to Belvin (1993: 72), Ritter and Rosen (1993: 526-527), and Hayase (2002: 198), unaccusative verbs such as *die* and *fall* are generally not used in the complement of the causative verb *have*, as seen in (24a-b). However, in a directive reading such as (24c-d) the use of them in the complement is acceptable. This is because directing something that is out of one's control cannot be done in the real world, but it can be done in the virtual world of novels and plays, and thus (24c-d) are acceptable.

(24) a. *Ralph ***had*** {Sheila / his goldfish} ***die***. (Ritter and Rosen 1993: 526)
b. *John ***had*** his daughter ***fall***. (Hayase 2002: 199)
c. Ralph ***had*** Sheila ***die*** in his movie.
(Hayase 2002: 198), (cf. Ritter and Rosen 1993: 527)
d. John ***had*** his daughter ***fall*** form the cliff in the second version of his novel.
(Hayase 2002: 199)

Such acceptability related to the controllability is also found in the imperative sentences, as in (25). Although the imperative sentences generally cannot be used with verbs that

indicate actions that are not self-controllable, according to Kashino (1999: 115), they can be acceptable in special contexts, such as acting instructions.

(25) a. ***Die***! (Anderson 1971: 41)
b. ***Fall*** off the chair. (Kuno 1972: 204)

Furthermore, according to Ritter and Rosen (1993), the causative verb *make* with expletives is grammatical while the causative verb *have* with the expletives is ungrammatical, as in (26), but Kaneko and Endo (2001:148) state that the causative verb *have* with the expletives is acceptable in contexts such as "God commands the weather gods to have birds on every continent," as shown in (27a). This acceptability may be due to the controllability of God Almighty. Other previous studies also provide the similar examples, as shown in (27b-f), in which subjects such as *God*, *the writer*, and *the magician* are used, stating the use of the expletive in the complement of the causative verb *have* also seems to be (marginally) acceptable.

(26) a. John {***made*** / ***had***} ***there be*** computers available for all the students.
(Ritter and Rosen 1993: 541)
b. John {***made*** / ***had***} ***it seem*** likely that Bill had lied. (ibid.)

(27) a. God ***had there be*** birds in every continent. (Kaneko and Endo 2001: 148)
b. Dear God, {***make*** / ***have***} ***it be raining*** when I get back. (Gee 1975: 350)
c. The magician ***had it*** {***rain*** / ***raining***} cats and dogs. (Inoue 1983a: 90)
d. The directors ***had there be*** a riot at the end of the first act.
(Brugman 1988: 150)
e. Agatha Christie ***had it rain*** in the fourth chapter.
(Ritter and Rosen 1993: 542)
f. ?Do you seriously believe God ***had it rain*** today? (Johnson 2014: 23)

Based on the linguistic facts presented in (21) to (27), it is assumed that examples that denote time gapping as seen in (19b) and (20) are also acceptable when the subject in the main clause has controllability to the causative event. Furthermore, even without assuming the conceptual simultaneity described by Kubota (2013: 84) and others, it can be summarized that time gapping in the bare infinitival complement can be considered eligible. However, this can only be done by increasing controllability through the use of a subject that can control the causative events, such as *a witch*, *director*, *writer*, or *god*.

Depending on the extent to which this controllability of the causer or subject of the matrix verb can be indicated, it can be inferred that there is a gap in the acceptability of non-simultaneity or asynchronicity seen thus far. In other words, although the causer's controllability over the causative event is explicit in (19b) and (21), it is unclear how much controllability the causer has over the causative event in the examples presented in (6) and (20) Therefore, the examples in (6) and (20) are less acceptable.

2.1.4. Bare Infinitive vs. *To*-infinitive

Why, then, do the causative verbs such as *make*, *have* and *let* take the bare infinitive and not the *to*-infinitive? Kuno and Takami (2005) and Takami (2011: 182-183) summarize the meaning of the causative verbs with the infinitives as follows.

Table 1. The Meaning of Causative Verbs (cf. Kuno and Takami (2005: 166) and Takami (2011: 182-183))

	The Type of Causers	The Type of Causees
make NP Inf	Coercion and Direct Encouragement	With Resistance
have NP Inf	Directions with Social and Habitual Control	Without Resistance
let NP Inf	No Interference (Permission and Leaving Alone)	Without Resistance
get NP *to*-Inf	Persuasion with Hardship or Effort	With Resistance

According to Kuno and Takami (2005: 166), as in Table 1, the causative verb *make* indicates coercive causation, direct encouragement and its causative action with resistance by the causee. This statement can be verified through the following examples.

(28) a. *I ***MADE*** him ***go*** to the party because he wants to. (Shibatani 1975: 46)
b. *John ***made*** Mary ***go*** to France, as she had really wanted to.
(Kuno and Takami 2005: 137)
c. *John always ***makes*** Mary ***do*** as she likes. (Kuno and Takami 2007: 265)
d. *If you are interested in that scholarship, I'll ***make*** you ***know*** more in detail.
(ibid.)

These semantic features are also evident from the following examples, which some informants provide. An adverb *willingly*, which denotes willingness of the agent for the

event, can modify the matrix verb which indicate the causer's action, but it cannot modify the bare infinitival complement which indicate the causee's action.

(29) a. I willingly ***made*** [the boy ***run***]. (Censored.)
b. *I made [the boy run willingly]. (Censored.)

So, it is assumed that the bare infinitive indicating the perfectivity is used in its complement, depending on the meaning of the coercion. On the other hand, the causative verb *have* indicates that there is no resistance to the causative action, and it indicates directions with social and habitual control. Therefore, examples that cannot be interpreted in the sense of the customary or social causative, such as requests due to hierarchical relationships or positional differences, are considered ungrammatical, as in (30).

(30) a. #Sarah ***had*** the baby ***stop*** crying. (Goldsmith 1984: 118)
b. #Lisa ***had*** the puppy ***stop*** barking. (ibid.)
c. *The terrorists ***had*** the bomb ***explode*** in central New Delhi. (Kuno and Takami 2005: 155)
d. ?She ***had*** her boss ***order*** some coffee. (Hollmann 2006: 209)

However, there are situations where these examples become acceptable by adding expressions that may strengthen the interpretation of the request, as in (31).

(31) The terrorists ***had*** a dozen bombs ***explode*** in front of the polling stations by hiring teenage suicide bombers. (Kuno and Takami 2005: 155)

It is clear from the following examples that the causative verb *have* indicates a request. As shown in (32), the causative verb *have* differs from *make* in that the inanimate subject cannot occur with *have*. This acceptability may be attributed to the meaning of the causative verb *have*: request.

(32) a. *The confusion ***had*** Mary ***leave*** in a hurry. (Givón 1975: 75)
b. *The confusion ***had*** me ***change*** my mind. (Okuyama 1993: 164)
c. *What Tom did ***had*** me ***change*** my mind. (ibid)
d. *{The bronze statue / John's dead brother} ***had*** John ***sing*** a song. (Sugimoto 2022: 264)
e. The confusion ***made*** me ***change*** my mind. (Okuyama 1992:172)

f. The heavy rain ***made*** the student ***run*** home. (Sugimoto 2022: 264)
g. The lightning {***made*** / ****had***} the little girls ***cover*** their heads.
(Takami 2010: 210)

The causative verb *let* also indicates that there is no resistance to the causative action, and it is used when the causee wants the event to occur, as shown in (33).

(33) a. John always ***lets*** Mary ***do*** as she likes. (Kuno and Takami 2007: 265)
b. If you are interested in that scholarship, I'll ***let*** you ***know*** more in detail.
(ibid.)

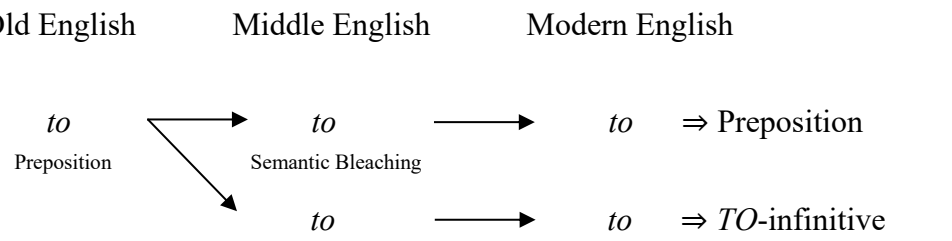
Therefore, it is assumed that the bare infinitive indicating perfectivity is used in the complement, depending on the meaning of no interference granted by the causative verb *let*. On the other hand, the causative verb *get*, which indicates persuasion with hardship or effort and its causative action with resistance by the causee, as shown in (34), cannot be used with the bare infinitive because the meaning of the causative verb *get* and bare infinitive which indicates perfectivity and simultaneity are semantically incompatible, as in (35) (cf. Yasui and Yasui (2022: 329)).

(34) a. *John always ***gets*** Mary ***to do*** as she likes. (Kuno and Takami 2007: 265)
b. *If you are interested in that scholarship, I'll ***get*** you ***to know*** more in detail.
(ibid.)
c. *I ***got*** my husband ***to stop*** drinking, because he wanted to do so anyway.
(Takami 2011: 195)
d. *Bill ***got*** Jane ***to go*** to New York, as she had wanted to. (Hamada 2021: 62)

(35) a. The doctor ***got*** his patient ***to breathe*** deeply. (Baron 1977: 53)
b. *The doctor ***got*** his patient ***breathe*** deeply. (ibid.)

As for the fact that the causative verb *get* works better with the *to*-infinitive rather than the bare infinitive, the *to*-infinitive originally indicated a futurity. This is because it was grammaticalized from a preposition *to* which indicates direction or purpose, as shown in Figure 2 (cf. Koma (1996: 103; 2018[2]: 126), Los (2005: 1) and Iyeiri (2007a: 92)).

Figure 2. Grammaticalization of the *TO*-infinitive



(Hosaka 2014: 89)

As evidence of this, Los (2005) provides an example where the preposition *to* and *to*-infinitive were coordinated by a conjunction *and* in Old English, as in (36). Therefore, the future-directive meaning of the preposition *to* is also found in the *to*-infinitive.

(36) þæt he ... mihte ... undon his muð ***to wisdomes spræcum***, and ***to wurðianne*** that he ... could ... undo his mouth to wisdom's speech, and to praise God
God
'so that he … could … open his mouth to wisdom's speech, and to praise God'
(ÆHom 16, 184; Los 2005: 8)

As for the semantic differences between the bare infinitive and *to*-infinitive, according to Ikegami (1990: 195), the causative verb *get* with the *to*-infinitival complement indicates the process of the causative action (cf. Swan (2005[3]: 200)), whereas the causative verb *make* with the bare infinitival complement indicates the result of the causative action rather than the process of the causative action (cf. Stefanowitsch (2002: 345-347)).[5] Besides, Bolinger (1968: 124) and Quirk et al. (1985: 1191) state that as a rule, the *to*-infinitive gives a sense of mere hypothesis or potentiality for action. As for the meaning of the processual nature of the *to*-infinitive, Lauer (2010) observes that when a hurricane hits a city and destroys a house a few days later, a verb *cause* with the *to*-infinitival complement is used instead of *make*, and when a hurricane hits a city and destroys a house at the same time, the verb *make* with the bare infinitival complement is used, as shown in (37).

(37) a. The hurricane ***caused*** the house ***to collapse***. (Lauer 2010: 10)
b. The hurricane ***made*** the house ***collapse***. (ibid.)

In relation to these semantic differences in the infinitives, the verb *help* takes both the bare infinitive and *to*-infinitive in its complement, as in (38).

(38) a. She ***helped*** them ***to pick*** cherries.
(Larsen-Freeman and Celce-Murcia 1999[2]: 646)
b. She ***helped*** them ***pick*** cherries. (ibid.)

Larsen-Freeman and Celce-Murcia (1999[2]: 647) also argue that sentences such as (38a) show indirect assistance such as "she may have prepared the ladder," while (38b) shows direct assistance such as "she picked the fruit with them." Quirk et al. (1972: 841) state that whether to require the bare infinitive or *to*-infinitive depends on "the subject's involvement" and Borkin (1984) shows the following acceptability, as in (39), although Lind (1983: 271), Kuno and Takami (2017: 8-9) and Ishikawa et al. (2020: 159) deny these semantic distinctions.

(39) a. Jack was so drunk he couldn't walk, so I ***helped*** him ***get*** into the car.
(Borkin 1984: 101)
b. (?)Jack was so drunk he couldn't walk, so I ***helped*** him ***to get*** into the car.
(ibid.)
c. Give Mary a job, and ***help*** her ***to get*** into college. (ibid.)
d. ?Give Mary a hand, and ***help*** her ***to unfasten*** that buckle. (ibid.)

Duffley (1992: 60-61) notes that the causative verb *make* can be characterized as denoting the causation as direct or concurrent with the production of the effect, while the causative verb *cause* denotes the causation as indirect or antecedent.

As for further evidence that these *to*-infinitival complements indicate the futurity and the process of the event, according to Okada (2018: 163), in the case of verbs with the *to*-infinitive, it is possible that there is a time gap between the event in the main clause and event in the *to*-infinitival complement, or strong resistance is expected before the event is fulfilled, and the situation in the *to*-infinitival complement is not always established in a satisfactory way. These views can be substantiated by the linguistic facts shown in (40). In the *to*-infinitival complement of the causative verbs, the time gap between the main clause and the complement is observed, while this would be impossible for the causative verbs which take the bare infinitival complement, except for the instances that we have seen in 2.1.3, as demonstrated in (6).

(40) a. John's behavior two years ago ***caused*** Mary ***to*** finally ***quit*** her job yesterday.
(Givón 1993: 11)

b. On Wednesday John ***got*** Mary ***to do*** the work on Friday.
(Okuyama 1994: 51)

c. Yesterday she ***asked*** him ***to shave*** today. (Givón 2001: 45)

d. He ***caused*** him ***to leave*** on Wednesday on Tuesday. (Anderson 2005: 35)

e. Mary ***caused*** the cat ***to die*** today by shooting it yesterday. (Fujita 2012: 10)

f. John ***forced*** Mary ***to do*** the dishes, but it took hours before she did so.
(Okada 2018: 162-163)

According to Kasai (2008: 128), the verb *force* (which shows semantic similarity to the causative verb *make* in that they indicate the coercive causation) does not imply simultaneity, unlike the causative verb *make*. Givón (1993: 13) also states that the coercive power of *force* is an indication that the manipulation is meeting resistance. Besides, the *to*-infinitive does not denote perfectivity, and can co-occur with expressions that deny the perfectivity of the event in question, as in (41), contrary to the facts we have seen in (5).[6]

(41) a. I ***persuaded*** him ***to leave*** the building, but he later changed his mind and stayed. (Talmy 1976: 105)

b. I ***allowed*** him ***to do*** it, but he didn't do it. (Duffley 1992: 85)

c. She ***asked*** him ***to shave*** but he refused. (Givón 2001: 45)

d. The sergeant ***ordered*** the recruits ***to hop*** on the spot, but they didn't do it.
(Hollmann 2006: 203)

These semantic differences between the bare infinitive and *to*-infinitive are analyzed by Givón (1993; 2001) in terms of the proximity principle, as in (42).

(42) Proximity Principle

a. The closer two linguistic entities are in meaning, the more they will exhibit temporal proximity at the code level. (Givón 1993: 24)

b. The closer two linguistic entities are functionally, the more contiguously they will be coded. (Givón 2001: 64)

In relation to Lakoff and Johnson's (1980: 129) metaphor "*Closeness indicates the strength of the effect*," Yule (1999: 227), from the standpoint of "linguistic distance,"

states that when the *to*-infinitive is not inserted in the complement, its meaning of the verb is strengthened because there is no separation of two actions. On the other hand, when the *to*-infinitive is inserted, the meaning of the verb is weakened, due to perceptual separation of the two actions. Such semantic differences are generally explained by iconicity. According to Lakoff and Johnson (1980: 128-132), the distance in the real world and strength of relationships are reflected in the sense of the distance in language. Furthermore, Tyler and Evans (2001: 87) also state that the iconicity implies a tight relation between physical proximity and one's ability to affect an entity. The same applies to the next example. According to Zandvoort (1972[7]: 12), the *to*-infinitive, as in (43), is not repeated before the second infinitive; as a result, the two verbs (*sit down* and *have*) form a closer group than the instance where the *to*-infinitive is repeated.

(43) He ***asked*** me ***to sit*** down and (***to***) ***have*** a cigarette with him.
(Zandvoort 1972[7]: 12)

Thus, the causative verb *get* takes the *to*-infinitive which indicates the futurity and process of the event according to its meaning of persuasion with the hardship or effort and its causative action with the resistance. These analyses suggest that the choice of infinitive in the complement for the active form of the causative verbs is greatly affected by the meaning of the causative verbs. The complement for the causative verb *make*, due to its meaning of the coercion, takes the bare infinitive, which indicates the perfectivity and simultaneity, as in (44), not the *to*-infinitive which indicates the futurity and process of the event.

(44) a. I ***made*** John ***wash*** the dishes. (Blanco 2011: 147)
b. *I ***made*** John ***to wash*** the dishes. (ibid.)

The causative verb *make* implies that the caused action is completed in a satisfactory way for the causer due to the coercion, so it takes the bare infinitival complement. Therefore, it does not take the *to*-infinitive, unlike the causative verb *get*, although it also indicates the causee's resistance due to the coercion. Regarding the causative verb *have*, which indicates the request, the bare infinitive is used rather than the *to*-infinitive because the request itself is the action which is caused in the satisfactory way for the causer. Sugai (2012: 68) states that the verb *have* originally meant possession, which means that the subject of the verb *have* can freely use whatever it "has," to a certain extent. This means that the causative verb *have* denotes a situation such as "if the subject promotes the

situation, the object will act intentionally" or a natural causation (cf. Hayase (2002: 199) and Yasui and Yasui (2022: 330)). Therefore, the causative verb *have* takes not the *to*-infinitive but the bare infinitive, as in (45).

(45) a. The doctor ***had*** his patient ***breathe*** deeply. (Baron 1977: 53)
b. *The doctor ***had*** his patient ***to breathe*** deeply. (ibid.)

The causative verb *let* indicates that the causee is willing to do the action represented by the infinitive, unlike other causative verbs, and it indicates that there is no obstacle to what the causee wants, as shown in (46) and (47).

(46) a. John always ***lets*** Mary ***do*** as she likes. (Kuno and Takami 2007: 265)
b. *John always ***makes*** Mary ***do*** as she likes. (ibid.)
c. *John always ***has*** Mary ***do*** as she likes. (ibid.)
d. *John always ***gets*** Mary ***to do*** as she likes. (ibid.)

(47) a. If you are interested in that scholarship, I'll ***let*** you ***know*** more in detail. (Kuno and Takami 2007: 265)
b. *If you are interested in that scholarship, I'll ***make*** you ***know*** more in detail. (ibid.)
c. *If you are interested in that scholarship, I'll ***have*** you ***know*** more in detail. (ibid.)
d. *If you are interested in that scholarship, I'll ***get*** you ***to know*** more in detail. (ibid.)

Therefore, it does not co-occur with expressions which deny the causee's volition, as in (48).

(48) a. *I ***let*** him ***wash*** my car, though he didn't seem to want to. (Kuno and Takami 2007: 266)
b. *The teacher ***let*** me ***help*** Mary, but I didn't want to. (Yoshida 1995: 42)
c. ??I can't ***let*** you ***come*** if you don't want to. (Ishii and Kuwabara 2020: 272)

In this respect, Nomura (2020: 126) posits that the causative verb *let* has semantic similarity with an auxiliary verb *may*, which also implies lack of obstacles. In addition, *let* can be used to indicate "a command to a third party" and "a prayer," as in (49).

(49) a. If he has any evidence to support his allegation, ***let*** him ***produce*** it.
(Huddleston and Pullum 2002: 936)
b. and ***let*** thy seed ***possess*** the gate of those which hate them.
(Authorized Version. Genesis 24: 60)

The semantic similarity between the causative verb *let* and the auxiliary verb *may* can be found in that the auxiliary verb *may* can also be used in an optative sentence, as in (50) and the optative sentence with *let* in (49b) changes into the optative sentence with the auxiliary verb *may*, in another version of the English Bible, as in (51).

(50) a. ***May*** God grant you happiness! (Leech 2004[3]: 72)
b. ***Let*** us ***pray*** that peace may return to our trouble land. (Swan 2005[3]: 319)

(51) … ***may*** your offspring gain possession of the gates of their foes.
(New Revised Standard Version. Genesis 24: 60)

From these linguistic facts, we can conclude that the causative verb *let* denotes that the caused event is automatically realized by permitting or leaving alone, and the causative verb *let* takes the bare infinitive which indicates perfectivity and simultaneity in its complement, depending on its meaning.[7] In addition, as demonstrated, not only the causative verb *let*, but other causative verbs such as *make* and *have*, take the bare infinitival complement, depending on the meaning of the causation.

2.1.5. Summary

We have looked in detail at the distribution of infinitival complements for the active form of causative verbs in Present-Day English and confirmed the semantic relation between causative verbs and infinitival complements. In sum, the causative verb *make*, which indicates coercive causation and direct encouragement, takes the bare infinitive, according to its meaning. The causative verb *have,* which indicates that there is no resistance to the causative action and indicates the directions with social and habitual control, also takes the bare infinitival complement; the causative verb *let* also takes the bare infinitival complement because it indicates that there is no resistance to the causative action, and it is used when the causee wants the event to occur. On the other hand, the causative verb *get*, which indicates the persuasion with the hardship or effort and its

causative action with the resistance by the causee, cannot be used with the bare infinitive because the bare infinitive which indicates perfectivity and simultaneity and the meaning of the causative verb *get* are semantically incompatible. From these linguistic facts, it is clear that causative verbs take the infinitives depending on their meaning of the causation.

2.2. Diachronic Analysis on Infinitival Selection in the Complements for the Active Forms of Causative Verbs

In the previous section, we have confirmed the semantic relation between the causative verbs and infinitival complements. However, according to the previous studies, the infinitival selection was diachronically unstable, as in the following examples.

(52) a. she ***maketh*** men ***mysdo*** many score tymes.
(PPI. B iii 122; Mustanoja 1960: 533)
b. þe veond hit ***makede*** me ***to don***. (Ancr. 136; ibid.)

(53) a. þis John of Ely ***lateþ*** this office to ferme ***to wymme***
(Plea III, p. 129, 243, A.; Kaartinen and Mustanoja 1958: 183)
b. And morover þe forsaid Mair, Aldremen and Communs ... ***laten*** al men ***to wete*** ... (Lett. VII, p. 98, 24, A.; ibid)
c. na werke þat ***lettis*** thaym ***to gyffe*** þaire herte to Godd,
(Rolle Prose, 11/18-19; Matsuse 1993: 7)
d. who ***leteth*** the wil ***for to enhabyten*** there (Chaucer Bo.I. p.5/34-35; ibid.)

Why could these expressions, that are not acceptable in Present-Day English, exist diachronically? How did the choices of infinitive found in Present-Day English come to be established? This section discusses infinitival selection in the complements for the active forms of the causative verbs, from a diachronic point of view. As discussed in the previous sections, the causative verbs *make*, *have* and *let* in Present-Day English take the bare infinitive rather than the *to*-infinitive in their complements, depending on their meanings of causation. However, as we have seen in (52) and (53), counterexamples to this conclusion existed diachronically. Although Dixon (1984: 586) suggests that the omission of the *to*-infinitive in the complement may just be an irregularity with a diachronic explanation like the plural form of *mouse* being *mice* that has simply to be learned by users, many previous studies have confronted this issue. According to Yamamura's (2015: 10) survey which investigates the distribution of the infinitival

complements of the causative verb *make* and is sourced from historical corpora such as the Penn-Helsinki Parsed Corpus of Middle English, Second Edition (PPCME2), the Penn-Helsinki Parsed Corpus of Early Modern English (PPCEME) and the Penn Parsed Corpus of Modern British English (PPCMBE), the *to*-infinitival complement for the active form of the causative verb *make* dominated in Middle English and the bare infinitival complement began to be used more often than the *to*-infinitival complement after Early Modern English. The active form of the causative verb *make* with the *to*-infinitival complement has declined since then, and the active form of the causative verb *make* now takes only the bare infinitive in its complement. In order to clarify how this restriction on the infinitival selection was established, this section will diachronically scrutinize the distribution of the causative verb *make* and infinitives from Old English to Present-Day English.

2.2.1. Infinitival Selection in the Complements for the Active Forms of Causative Verbs in Old English

In Old English, only the causative verb *make* followed by a *þæt* clause existed and originally the causative verb *make* with the infinitival complement did not exist, as shown in (54).

(54) a. Ge habbað .. ***gemacod þæt*** hy willað us mid heora swurdum ofslean.
you have made that they will us with their swords kill
'you have made that they will kill us with their swords.'
(OE; *Old Eng. Hexateuch: Exod*. (Claud.) v. 21; OED. *make*, *v*.1. 38)

b. Þæt landfolc him toȝeanes comen & ***ȝemacodon þæt*** he
that the people of a land him towards came and made that he
naht ne dyde.
nothing not did
'that the people of a land came towards him and made that he did not nothing.' (c. 1122 O.E. *Chron*. an. 1075; OED^2. *make*, *v*.1. 52)

In Present-Day German, the verb *machen* (=*make*) can still take a *daß*-clause, as in (55). Therefore, it is likely that such a structure as in (54) was a Germanic-derived expression.

(55) Mein Wort ***macht*** [***daß*** er zittert]. (=macht ihn zittern) (Ando 2008: 125)

According to the OED, it was not until in 1225 that the causative verb *make* appeared with the bare infinitival complement, as shown in (56a). On the other hand, the causative verb *make* with the *to*-infinitival complement appeared in 1200, as in (56b).

(56) a. Swa ***makeð*** þe halie gast þe Mon ***bi-halden*** up to houene.
So makes the holy ghost the man behold up to heaven.
'So the holy ghost makes the man behold up to heaven.'
(a 1225 (?OE) *MS Lamb*. in R. Morris *Old Eng. Homilies* (1868) 1st Ser. 159; OED. *make*, v.1. 39b)

b. þe deuel .. ***makeð*** þe unbilefulle man ***to leuen*** swilche wiȝeles.
the devil makes the unbelieving man to believe in such divinations
'the devil makes the unbelieving man believe in such divinations'
(a1200 *MS Trin*. *Cambr*. in R. Morris *Old Eng. Homilies* (1873) 2nd Ser. 11; OED. *make*, v.1. 39a)

Zeitlin (1908: 43-45) and Callaway (1913: 110-112) show no example of the causative verb *make* with the infinitival complement in Old English. Visser (1973: 2261) states that causative verbs in Old English mainly consisted of *do* and *let*, and that the causative verb *make* did not come into frequent use until Middle English. Ikegami (1981: 89) states that a causative verb *do* with the bare infinitival complement might have arisen from the causative verb *do* with a *þæt* clause. According to Matsuse (1993) and Manabe (1995), the causative verb *make* was in competition with the causative verb *do*, which had been the mainstream of the causative verbs until that point in Middle English, and then the use of the causative verb *make* expanded at the cost of the causative verb *do* (cf. Kuhn (1977) and Matsuse (1996: 77)).[8] Although the some examples of *do NP to-Inf* are provided in the OED (*s.v*. *do*, *v*. 29b(b)), Ringe and Tyler (2014: 485) state that only the bare infinitive was required in the infinitival complement of the causative verb *do* and *let* in Old English, as in (57).[9]

(57) a. Swa swa ðu ***dydest*** minne broðor his god ***forletan***.
as as you made my brother his god forsake
'Just as you made my brother forsake his god.'
(ÆCHorn (1) 31. 468. 20; Denison 1993: 172)

b. Þa cwæð se Hælend to him, Fylig me, and ***læt*** deade ***bebyrigean*** hyra deadan.
Then said the Load to him, follow me, and let the dead bury

their dead
'Follow me, Jesus answered, and let the dead bury their own dead.'
(West Saxon Gospels. Mathew 8: 22)

According to Ringe and Taylor (2014), the present participial complements of the causative verb *do* could be found as in (58), although they were even rarer.

(58) a. and, God, ***gedo*** [me ***lufiende*** and onfundne þines wisdomes]
and God make me loving and knowledgeable your wisdom
'and, God, make me loving and knowledgeable about your wisdom'
(cosolilo, Solil_1: 14.4.176; Ringe and Tyler 2014: 500)
b. Þær hy ***gedydon*** [ðæt cild ***sprecende*** þæt ne wæs anre nihte eald]
there they made the child speaking which NEG was one night old
'there they made the child speak, which was not one night old'
(comart3, Mart_5_[Kotzor]: Oc28, A.9.2067; ibid.)

On the other hand, for the *to*-infinitival complements of the causative verb *do*, according to Timofeeva (2011: 102), only three examples of the *to*-infinitival complements for the active form of the causative verb *do* were found in the later extension of Peterborough Chronicle (c.1155), occurring in a collocation *don to understanden(ne)*.

(59) He ***dide*** ðone king ***to understanden*** þet he wolde mid alle forlæte
he do-PAST the-ACC king to understand-INF that he would withal forsake
þone minstre
the minster
'he made/gave the king to understand that he would give up the monastery completely' (*ChronE* 1128.10; Timofeeva 2011: 102)

Los (2005: 135) suggests that *don to understandenne* is a set phrase and describes *don* in such contexts as a three-place verb with the sense 'to give, grant,' deriving from a reanalysis of the '[_ NP NP] frame' of the kind to do someone a favor. One of the reasons for this rather limited occurrence of the *to*-infinitival complements may be that the grammaticalization of the *to*-infinitive was not complete in Old English, as shown in Figure 2. Regarding the causative verb *let*, according to Visser (1973: 2260, 2293-2294), *let NP Inf* is normal in Old English, although the distinction between the meanings of *let*

and *allow* is not always clear. The semantic ambiguity of *let NP Inf* in Old English is evident from the following examples of the English Bibles.

(60) a. And þa ða he to þam huse com, ne ***let*** he nanne mid him in ***gan*** buton Petrum and lohannem and lacobum, and þæs mædenes fæder and hyre modor.
(West Saxon Gospels. Luke 8: 51)

b. And whanne he cam to the hous, he suffride no man to entre with hym, but Petir and Joon and James, and the fadir and the modir of the damysel.
(Wycliffe Bible Early Version. Luke 8: 51)

c. And whanne he cam to the hous, he suffride no man to entre with hym, but Petir and Joon and James, and the fadir and the modir of the damysel.
(Wycliffe Bible Late Version. Luke 8: 51)

d. And there was there by, an hearde of many swine, feeding on an hill: and the deuils besought him, that he would suffer them to enter into them. So he suffered them. (Geneva Bible. Luke 8: 51)

e. And when he came into the house, he suffered no man to go in, save Peter, and James, and John, and the father and the mother of the maiden.
(Authorized Version. Luke 8: 51)

f. And when he came to the house, he suffered not any man to enter in with him, save Peter, and John, and James, and the father of the maiden and her mother.
(Revised Version. Luke 8: 51)

g. And when he came to the house, he permitted no one to enter with him, except Peter and John and James, and the father and mother of the child.
(Revised Standard Version. Luke 8: 51)

h. When he came to the house, he did not allow anyone to enter with him, except Peter, John, and James, and the child's father and mother.
(New Revised Standard Version. Luke 8: 51)

(61) a. Þa cwæð se Hælend to him, Fylig me, and ***læt*** deade ***bebyrigean*** hyra deadan.
(West Saxon Gospels. Mathew 8: 22)

b. Forsoþe Jhesus saide to hym, Sue þou me, and ***late*** dede men ***birye*** her dead men. (Wycliffe Bible Early Version. Mathew 8: 22)

c. But Jhesus seide to hym, Sue thou me, and ***lete*** deed men ***birie*** her deede men. (Wycliffe Bible Late Version. Mathew 8: 22)

d. But Iesus said vnto him, Followe me, and ***let*** the dead ***burie*** their dead.

(Geneva Bible. Mathew 8: 22)

e. But Jesus said unto him, Follow me; and ***let*** the dead ***bury*** their dead.
(Authorized Version. Mathew 8: 22)

f. But Jesus saith unto him, Follow me; and <u>leave the dead to bury</u> their own dead. (Revised Version. Mathew 8: 22)

g. But Jesus said to him, "Follow me, and <u>leave the dead to bury</u> their own dead." (Revised Standard Version. Mathew 8: 22)

h. But Jesus said to him, "Follow me, and ***let*** the dead ***bury*** their own dead."
(New Revised Standard Version. Mathew 8: 22)

As for the reason the bare infinitive was only required in the complements for the active form of the causative verb *do* and *let*, Yamakawa (1963: 83) points out a morphological agreement in its complement, although the morphological agreement is no clearer than that in the complements of Latin-derived verbs. In other words, in Old English, the morphological case of the bare infinitive agreed with that of the logical subject in the complement in order to indicate a predication between the logical subject and the bare infinitive in its small clause, as in (62).[10]

(62) a. Swa swa ðu ***dydest*** minne broðor his god ***forletan***.
as as you made [$_{\text{Small Clause}}$ my brother$_{\text{-Acc}}$ his god forsake$_{\text{-Acc}}$]
'Just as you made my brother forsake his god.' (ÆCHorn (1) 31. 468. 20)

b. and ***læt*** deade ***bebyrigean*** hyra deadan.
and let [$_{\text{Small Clause}}$ the dead$_{\text{-Acc}}$ bury$_{\text{-Acc}}$ their dead]
'and let the dead bury their own dead.'
(West Saxon Gospels. Mathew 8: 22)

The name of infinitive comes from its unlimited form by the number and person of its subject (cf. Eckersley and Eckersley (1960: 230)) but originally, the bare infinitive was a verbal noun with accusative case. According to Yamakawa (1960: 89) and Hogg and Fulk (2011: 216), the bare infinitive *-(i)an* in Old English, which originally had an inflectional affix of neuter, singular and accusative in Proto-Indo-Europeans, was used in the nominative and accusative cases in Old High German and Old English, as in (63).

(63) The Origin of the Bare Infinitive

*-onom (PIE) → *-onom (PIE) → *-anam (PIE) → -an (Gothic) →
Neuter. Sg. Acc

-an (OHG / OE)
Nom / Acc

Therefore, it was mainly used as objects of main verbs in Old English. In Old English, main verbs such as *willan*, *cunnan* and *magan* (which correspond to the auxiliary verb *will*, *can* and *may* respectively in Present-Day English as shown in (64)) were followed by the bare infinitive as its object. Eventually, *willan*, *cunnan* and *magan* grammaticalized into the auxiliary verb *will*, *can* and *may* and the bare infinitive was also reanalyzed as a matrix verb, as in (65).[11]

(64) a. willan 'to want' → will (cf. Bybee 2003: 148)
b. cunnan 'to know' → can (ibid.)
c. magan 'to be able' → may (ibid.)

(65) a. [$_{VP}$ {willan / cunnan / magan [$_{VP}$...]] > [$_{IP}$ [$_{I'}$ {will / can / may} [$_{VP}$...]]] (Hosaka 2014: 148)
b. [$_{IP}$ Kim [$_{I'}$ can$_i$ [$_{VP}$ Spec [$_{V'}$ t$_i$ sing]]]] > [$_{IP}$ Kim [$_{I'}$ can [$_{VP}$ sing]]] (cf. Lightfoot 2003: 110)

Moreover, small clauses in Old English indicated the predication between the object and complement with morphological agreements, as shown in (66).

(66) a. heo afunde [þone hring gehalne]
she found [the ring$_{-Acc}$ whole$_{-Acc}$] (Ælfric Hom.II. 28.)
b. Ic macige [ðe mycelre mægðe].
I make [you$_{-Acc}$ greater people$_{-Acc}$] (HEPT (Gen) 12: 2)
c. Þa gesawon hi [hine adligne]
then saw they [him$_{-Acc}$ sick$_{-Acc}$]
(cocathom2, ACHom_II,2:12.25.273; cf. Ringe and Tyler 2014: 499)

In other languages, similar constructions in small clauses are often found. Particularly, in Present-Day French and Present-Day Spanish, which have rich inflections like Old English, objects and complements in the small clauses morphologically agreed in gender,

number and case. An absence of the morphological matching in the small clause is not acceptable, as in (67b-c).[12]

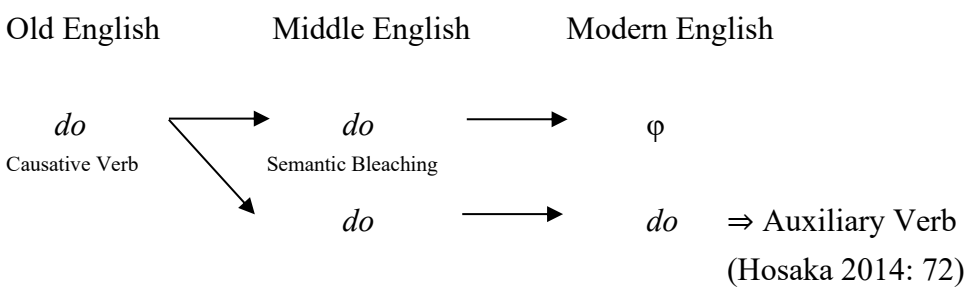
(67) a. Je trouve ces files beles.
I find those girl [female / plural] beautiful [female / plural]
'I found those girls beautiful.' (Oba 1992: 4)
b. *Je trouve ces files belle.
I find those girl [female / plural] beautiful [female / singular] (Oba 1992: 5)
c. Considero [{claro / *clara} el asunto].
I-consider clear the mater (Mihara 1988: 69)

These facts suggest that the choice of infinitival complement for the active form of causative verbs in Old English is limited to the bare infinitive, and that the bare infinitive in Old English agreed morphologically with the logical subject in order to indicate predication. Finally, this paper assumes that bare infinitives in Old English did not denote the same aspect as found in Present-Day English, as shown in (2). The rationale for this is that the bare infinitival complement for perception verbs in Old English also did not denote the aspect found in Present-Day English, as will be discussed in detail in 3.2.1.

2.2.2. Infinitival Selection in the Complements for the Active Forms of Causative Verbs in Middle English

In Middle English, the grammaticalization of the causative verb *do* meant that it began to be used periphrastically and the periphrastic verb *do* and the causative verb *do* were blended, as shown in Figure 3.[13]

Figure 3. Grammaticalization of the Auxiliary Verb *DO*



(Hosaka 2014: 72)

In this way, there appeared *do do (NP) Inf* and *do NP to-Inf* to distinguish the causative verb *do* from the periphrastic verb *do* (cf. Fischer (1992: 276)). Furthermore, in Malory's works, *make* and *let* were supplemented in the causative verb *do* to emphasize the causative nature of *do*, as in (68).

(68) a. Þe tresurer ***dyde do make*** a dich
(7 Sages (7) (Balliol) 1269; Fischer 1992: 276)

b. ..., and so thus he ***ded lete make*** and countirfete lettirs from the Pope, and ***dede make*** a straunge clarke ***to brynge*** tho lettyrs unto kynge Marke,...
(Malory Wks (Add. 59678) 677: 27-9; ibid.)

c. And so the vessel which for blod / Was made, Silvestre... / With clene water of the welle / In alle haste he ***let do felle*** [= fill], / And sette Constantin therinne /Al naked up unto the chinne. (CA ii.3445-50; ibid.)

After that, the causative verb *make* increased as it eventually absorbed the causative use of *do*.[14] When the preposition *to* grammaticalized into the *to*-infinitive in Middle English, a number of the causative verbs with the *to*-infinitival complement began to be used, as in (69b).[15] [16] [17]

(69) a. she ***maketh*** men ***mysdo*** many score tymes.
(PPI. B iii 122; Mustanoja 1960: 533)

b. þe veond hit ***makede*** me ***to don***. (Ancr. 136; ibid.)

According to Fries (1940: 130-131), the frequency of infinitives in Old English and Present-Day English are reversed, as in Table 2 (the bare infinitive which follows auxiliary verbs are excluded in this table). This indicates that since Middle English, with the grammaticalization of the *to*-infinitives, the use of the bare infinitival complement has declined.

Table 2. Frequency of Infinitives in Old English and Present-Day English (cf. Fries 1940: 130-131)

	Bare Infinitive	TO Infinitive
Old English	**74.7%**	25.3 %
Present-Day English	18%	**82%**

According to Manabe (1995: 196; 1996: 110), who investigated the distribution of both the causative verbs and infinitives, by using texts written from the 13th century to the 14th century, the use of the causative verb *make* was more than *do* in the periods, and the use of the bare infinitival and *to*-infinitival complement for the causative verb *make* competed in number, as in Table 3 and Table 4.

Table 3. Distribution of Causative Verbs (*do* and *make*) and their Infinitival Complements in Early Middle English Texts (cf. Manabe 1995: 196)

	Bare Infinitive	TO Infinitive	TOTAL
Causative Verb DO	62	23	85 (33.3%)
Causative Verb MAKE	**70**	**90**	**160 (66.7%)**

Table 4. Distribution of Causative Verbs (*do* and *make*) and their Infinitival Complements in the 14th Century (cf. Manabe 1996: 110)

	Bare Infinitive	(for)TO-Infinitive	TOTAL
Causative Verb DO	37	23	60 (28.3%)
Causative Verb MAKE	**71**	**81**	**152 (71.7%)**

Many other previous studies have investigated the conflict between the causative verbs *do* and *make*. The results of these studies are shown below. The competition between the causative verb *do* and *make* converged over time, with the causative verb *make* becoming more common in Middle English. Regarding the use of infinitives, *to*-infinitives came to be more common.

Table 5. Distribution of Causative Verbs (*do* and *make*) and their Infinitival Complements in the Late 14th Century (cf. Matsuse 1993: 3)

	TO Infinitive	Bare Infinitive	TOTAL
Causative Verb DO	25	25	50 (17.4%)
Causative Verb MAKE	**140**	**97**	**237 (82.6%)**

Table 6. Distribution of Causative Verbs (*do* and *make*) and their Infinitival Complements in the 15th Century (cf. Sugiyama 1988: 46)

	TO Infinitive	Bare Infinitive	TOTAL
Causative Verb DO	18	12	30 (8.7%)
Causative Verb MAKE	**237**	**78**	**315 (91.3%)**

According to Yamamura's (2015: 10) survey which investigates the distribution of infinitival complement of the causative verb *make* by using historical corpora such as PPCME2, PPCEME and PPCMBE, the *to*-infinitival complement for the active form of the causative verb *make* dominated in Middle English, and the bare infinitival complement began to be used more often than the *to*-infinitival complement after Early Modern English, as in Table 7.[18]

Table 7. Distribution of Infinitives in the Complements for the Action Form of the Causative Verb *make* (cf. Yamamura 2015: 10)

	φ + to Inf.	OBJ + to Inf.	φ + Inf.	OBJ + Inf.
PPCME2 (ME)	21 (4.8%)	**241 (55.4%)**	34 (7.8%)	139 (32.0%)
PPCEME (EModE)	1 (0.2%)	127 (26.1%)	0 (0.0%)	**359 (73.7%)**
PPCMBE (LModE)	0 (0.0%)	36 (19.7%)	0 (0.0%)	**147 (80.3%)**

Previous studies on the distribution of the active form of the causative verb *make* and infinitives in texts from the 12th century to the 17th century also show the higher frequency of the *to*-infinitival complement than the bare infinitival complement in texts from the 12th century to the early 16th century, as shown in Table 8, although each may also be influenced by the style of the texts (prose or verse) and there were some exceptions.

Table 8. Distribution of the Active Form of the Causative Verb *make* and Infinitives in Texts from Middle English to Modern English

Infinitival Selection in the Complement of *make*	Bare Inf	TO Inf (/ For-to Inf)
EME poet (Jack 1991: 324)	20	**40 / 1**
Brut [1190-1215] (Kuwayama 2003: 156)	**20**	7 / 1
Gawain [Late 13th Century] (Kumamoto 2001: 116)	0	**4**
Chaucer [1343-1400] (Kumamoto 2001: 116)	**27**	24
Malory [1399-1471] (Nakashima 1981: 214)	24	**129 / 4**
Cely Letters [1472-1488] (Nakashima 2002: 145)	1	**2**
Caxton [1415-1492] (Ando 1988: 227)	42	**170**
Paston Letters [1422-1509] (Mano 2009: 254)	8	**15**
Marlowe [1564-1593] (Ando 1978: 532)	**155**	27
Shakespeare [1564-1616] (Araki and Ukaji 1984: 446)	**440**	31

As for the characteristics of the causative verb *make* in Middle English, Los (2015: 126) argues that *make NP to-Inf* in Middle English denoted directive meaning such as the verbs *command* and *order*. According to Baron (1977: 74) and Terasawa (1985: 135), *make NP Inf* began to be used as the causative verb, indicating the coercion after Late Middle English. Until then, *make NP Inf* had not been established (cf. Iyeiri (2012: 71)).[19] This may be attributed to the fact that in Middle English, along with the grammaticalization of the verb *do*, the causative verb *make* was in competition with the causative verb *do* which had been the mainstream of the causative verbs until then (cf. Matsuse (1993) and Manabe (1995)). The causative verb *do* was used as the meaning of *cause* (cf. A Concise Anglo Saxon Dictionary (*s.v. don*) and Yamakawa (1951: 76)). With the grammaticalization of *do*, *make* and *cause* took over the causative meaning that *do* had carried (cf. Ukaji (2000: 283)). In my diachronic investigation for the distribution of the causative verb *make* and the infinitives in the English Bibles from Middle English to Present-Day English, many examples of *make NP to-Inf* in the Wycliffe Bible Early Version changed into lexical causative verbs such as transitive verbs, the constructions of *accusative with infinitive* or other causative verbs, as shown in Table 9.[20]

Table 9. Diachronic Change of *make NP to-Inf* in the Wycliffe Bible Early Version (EV) (cf. Muraoka 2021a: 11)

EV (Middle English) > NRSV (Present-Day English)	TOTAL
make NP to-Inf > Other Expression (Lexical Causative Verbs)	138 (61.1%)
make NP to-Inf > cause NP *to*-Inf	39 (17.3%)
make NP to-Inf > make NP Inf	39 (17.3%)
make NP to-Inf > have NP Inf	3 (1.3%)
make NP to-Inf > make NP *to*-Inf (cause NP *to*-Inf)	2 (0.9%)
make NP to-Inf > lead NP *to*-Inf	1 (0.4%)
make NP to-Inf > let NP Inf	1 (0.4%)
make NP to-Inf > allow NP *to*-Inf	1 (0.4%)
make NP to-Inf > help NP Inf	1 (0.4%)
make NP to-Inf > make NP past participle	1 (0.4%)
TOTAL	226

Firstly, on the change from *make NP to-Inf* to the lexical causative verbs, in the English Bibles, the following example was observed as in (70). As for the meaning of the lexical causative verbs, according to Kuno and Takami (2014: 94), the lexical causative verbs indicate that the subject – the causer – causes the event directly in the most general way, while the (analytic or periphrastic) causative verbs such as *make* indicate that the causer indirectly forces or directs the causee and causes the event by unusual or special means (cf. Dixon (1991: 294) and Maruta (1998: 5-6)).

(70) a. Þe puple þanne þristide þere, for meschef of water, and it grucchide aȝen Moyses, seiynge, Whi hast þow ***maad*** vs ***to goo*** out of Egipte, þat þow myȝte slee vs, and oure fre children, and beestes, þurȝ þrist?
(Wycliffe Bible Early Version. Exodus 17: 3)

b. Therfor the puple thristide there for the scarsnesse of watir, and grutchiden ayens Moises, and seide, Whi ***madist*** thou vs ***to go*** out of Egipt, to sle vs, and oure fre children, and beestis, for thrist?
(Wycliffe Bible Late Version. Exodus 17: 3)

c. So the people thirsted there for water, and the people murmured against Moses, and said, Wherefore hast thou thus <u>brought vs</u> out of Egypt to kill vs and our children and our cattel with thirst? (Geneva Bible. Exodus 17: 3)

d. And the people thirsted there for water; and the people murmured against Moses, and said, Wherefore is this that thou hast brought us up out of Egypt, to kill us and our children and our cattle with thirst?

(Authorized Version. Exodus 17: 3)

e. And the people thirsted there for water; and the people murmured against Moses, and said, Wherefore hast thou brought us up out of Egypt, to kill us and our children and our cattle with thirst? (Revised Version. Exodus 17: 3)

f. But the people thirsted there for water, and the people murmured against Moses, and said, "Why did you bring us up out of Egypt, to kill us and our children and our cattle with thirst?"

(Revised Standard Version. Exodus 17: 3)

g. But the people thirsted there for water; and the people complained against Moses and said, "Why did you bring us out of Egypt, to kill us and our children and livestock with thirst?"

(New Revised Standard Version. Exodus 17: 3)

Besides, many examples of *make NP to-Inf* in the Wycliffe Bible Early Version often changed into *cause NP to-Inf* in the Bibles of later times, as in (71) and (72) (cf. Muraoka 2021a).[21] [22]

(71) a. And the Lord God shal take Irael `to her enemyes, for the synnes of Jeroboam, the which synnede, and ***made*** Irael ***to synne***.

(Wycliffe Bible Early Version. 1 Kings 14: 16)

b. And the Lord God schal bitake Israel to hise enemyes, for the synnes of Jeroboam, that synnede, and ***made*** Israel ***to do synne***.

(Wycliffe Bible Late Version. 1 Kings 14: 16)

c. And he shall giue Israel vp, because of the sinnes of Ieroboam, who did sinne, and ***made*** Israel ***to sinne***. (Geneva Bible. 1 Kings 14: 16)

d. And he shall give Israel up because of the sins of Jeroboam, who did sin, and who ***made*** Israel ***to sin***. (Authorized Version. 1 Kings 14: 16)

e. And he shall give Israel up because of the sins of Jeroboam, which he hath sinned, and wherewith he hath ***made*** Israel ***to sin***.

(Revised Version. 1 Kings 14: 16)

f. And he will give Israel up because of the sins of Jerobo'am, which he sinned and which he ***made*** Israel ***to sin***."

(Revised Standard Version. 1 Kings 14: 16)

g. He will give Israel up because of the sins of Jeroboam, which he sinned and which he ***caused*** Israel ***to commit***."

(New Revised Standard Version. 1 Kings 14: 16)

(72) a. Þat þei ***make to come*** to hym þe cri of þe nedi, and he here þe vois of pore men. (Wycliffe Bible Early Version. Job 34: 28)

b. That thei schulden ***make*** the cry of a nedi man ***to come*** to hym, and that he schulde here the vois of pore men.

(Wycliffe Bible Late Version. Job 34: 28)

c. So that they haue ***caused*** the voyce of the poore ***to come*** vnto him, and he hath heard the cry of the afflicted. (Geneva Bible. Job 34: 28)

d. So that they ***cause*** the cry of the poor ***to come*** unto him, and he heareth the cry of the afflicted. (Authorized Version. Job 34: 28)

e. So that they ***caused*** the cry of the poor ***to come*** unto him, and he heard the cry of the afflicted. (Revised Version. Job 34: 28)

f. so that they ***caused*** the cry of the poor ***to come*** to him, and he heard the cry of the afflicted- (Revised Standard Version. Job 34: 28)

g. so that they ***caused*** the cry of the poor ***to come*** to him, and he heard the cry of the afflicted— (New Revised Standard Version. Job 34: 28)

In Table 9, there are instances where *make NP to-Inf* has been used from Middle English to Present-Day English but *cause NP to-Inf* is used in the corresponding section of the Good News Bible, a modern colloquial translation of the Bible, as in (73).

(73) a. and by that the more thei wondriden, seyinge, He dide wel alle thingis, and deef men he ***made to heere,*** and doumbe men ***to speke***.

(Wycliffe Bible Early Version. Mark 7: 37)

b. and bi so myche more thei wondriden, and seiden, He dide wel alle thingis, and he ***made*** deef men ***to here,*** and doumbe ***for to speke***.

(Wycliffe Bible Late Version. Mark 7: 37)

c. And were beyonde measure astonied, saying, Hee hath done all thinges well: he ***maketh*** both the deafe ***to heare***, and the domme ***to speake***.

(Geneva Bible. Mark 7: 37)

d. And were beyond measure astonished, saying, He hath done all things well: he ***maketh*** both ***the deaf to hear,*** and the dumb ***to speak***.

(Authorized Version. Mark 7: 37)

e. And they were beyond measure astonished, saying, He hath done all things well: he ***maketh*** even the deaf ***to hear***, and the dumb ***to speak***.

(Revised Version. Mark 7: 37)

f. And they were astonished beyond measure, saying, "He has done all things well; he even ***makes*** the deaf ***hear*** and the dumb ***speak***."

(Revised Standard Version. Mark 7: 37)

g. They were astounded beyond measure, saying, “He has done everything well; he even ***makes*** the deaf ***to hear*** and the mute ***to speak***.”

(New Revised Standard Version. Mark 7: 37)

h. And all who heard were completely amazed. “How well he does everything!” they exclaimed. “He even ***causes*** the deaf ***to hear*** and the dumb ***to speak***!”

(Good News Bible. Mark 7: 37)

According to Muraoka (2021a: 8-11), diachronic changes of *make NP to-Inf* in the Wycliffe Bible Early Version intervened by *cause NP to-Inf* were 40.7%. These findings suggest that *make NP to-Inf* in Middle English was semantically similar to the lexical causative verbs and *cause NP to-Inf*. Apart from previous studies on the English Bibles, Fischer (1995: 11; 1997: 112), presenting the example of Chaucer in (74), argues that the *to*-infinitive in *make NP to-Inf* implied indirectness, and that the *to*-infinitive was used in (74) because Nero did not deal directly with Seneca, but indirectly caused his death by driving him to suicide.

(74) 2507: Sire, wilde he seyn, an emperour moot nede / 2508: Be vertuous and hate tirannye / 2509: For which he in a bath ***made*** hym ***to blede*** / 2510: On bothe his armes, til he moste dye.

‘Sire, he would say, an emperor must of necessity be virtuous and hate tyranny, for which he [Nero] ***made*** him [Seneca] ***bleed***, in a bath, from his arms, until death.’ (Chaucer, Monk’s Tale; Lowrey 2013: 101)

However, Lowrey (2013) argues that in the sentence following (74), the semantic difference between the direct and indirect causation did not exist in the choice of infinitive, because the bare infinitive is used instead of the *to*-infinitive, even though the subjects and objects are identical in (74) and (75).

(75) 2511: This nero hadde eek of acustumaunce / 2512: In youthe agayns his maister fir ti ryse, / 2513: which afterward hym thought a great grevaunce; / 2514: Therefore he ***made*** hym ***dyen*** in this wise.
'this Nero had also in youth the custom of rising up against his master, which afterwards seemed to him to be a source of great grievance, therefore he ***made*** him ***die*** in this manner.' (Chaucer, Monk's Tale; Lowrey 2013: 102)

It is possible that the causative verb *make* in Middle English was semantically ambiguous between the directive causation and compulsory causation because some examples in the English Bibles where *make NP to-Inf* in the Wycliffe Bible Early Version was changed into *make NP Inf* in the New Revised Standard Version can be found, as shown in Table 9 and (76).

(76) a. And he clepide the name of the first gotun sone, Manasses, seiynge, God hath ***maad*** me ***to forȝete*** alle my trauayls, and the hows of my fader;
(Wycliffe Bible Early Version. Genesis 41: 51)
b. And he clepide the name of the firste gendrid sone, Manasses, and seide, God hath ***maad*** me ***to forȝete*** alle my traueilis, and the hous of my fadir;
(Wycliffe Bible Late Version. Genesis 41: 51)
c. And Ioseph called the name of the first borne Manasseh: for God, said he, hath ***made*** me ***forget*** all my labour and al my fathers houshold.
(Geneva Bible. Genesis 41: 51)
d. And Joseph called the name of the firstborn Manasseh: For God, said he, hath ***made*** me ***forget*** all my toil, and all my father's house.
(Authorized Version. Genesis 41: 51)
e. And Joseph called the name of the firstborn Manasseh: For, said he, God hath ***made*** me ***forget*** all my toil, and all my father's house.
(Revised Version. Genesis 41: 51)
f. Joseph called the name of the first-born Manas'seh, "For," he said, "God has ***made*** me ***forget*** all my hardship and all my father's house."
(Revised Standard Version. Genesis 41: 51)
g. Joseph named the firstborn Manasseh, "For," he said, "God has ***made*** me ***forget*** all my hardship and all my father's house."
(New Revised Standard Version. Genesis 41: 51)

In relation to this semantic ambiguity, Pustejovsky (1995), from the perspective of generative lexicon, offers an explanation using an example of a noun *construction* which has the similar semantic concept of the verb *make*. In (77a), a process aspect of the noun *construction* is expressed, meaning "the construction process is hard and boring," and in (77b), a result aspect of the noun *construction* is expressed, meaning "the building is on the next street." In addition, (77c) means "it took two months to finish building the house," which represents the whole event, including both the construction work (process) and the building (result).

(77) a. The ***construction*** was arduous and tedious. (Pustejovsky 1995: 94)
b. The ***construction*** is standing on the next street. (ibid.)
c. The house's ***construction*** was finished in two months. (ibid.)

Pustejovsky (1995) uses this Process / Result alternation for the semantic change of nouns, but it can also be applied to the semantic change of verbs. In other words, the causative verb *make* came to indicate the process of the caused event by using the *to*-infinitive, and the result of the caused event by using the bare infinitive, but originally there were expressions which were semantically ambiguous.

Another factor in the instability of the choice of the infinitival complements for the causative verb *make* could be that the aspect of the bare infinitive was not established until Late Modern English. Like the bare infinitival complement of the causative verbs, the bare infinitives that the perception verbs take in their complements may not have indicated the aspectual property of the perfectivity seen in 1.2.2 in Early Modern English. As evidence of this, as shown below, examples are detected in Early Modern English that would be considered ungrammatical in Present-Day English (this issue will be discussed in detail in 3.2.3).

(78) a. thus Iacob the sonne of isaac ***sawe*** a ladder ***stand*** vpon the earth, (EEBO. 1582)
b. wee haue ***seene*** the axe ***lie*** at the roote of our greatest cedars, (EEBO. 1606)
c. Mee thinkes i ***see*** a sword ***hang*** in the ayre by a twine threed, (EEBO. 1599)

(79) a. *I ***saw*** the ladder ***lean*** against the side of the house. (Kirsner and Thompson 1976: 220)
b. *I ***saw*** the lamp ***stand*** on the table. (Akmajian 1977: 440)
c. *He ***saw*** a portrait of Sapir ***hang*** on the wall. (Seki 1989: 93)

These findings suggest that the instability in the choice of infinitival complement of the causative verb *make* was due to the fact that the causative verb *make* indicated a variety of the causative events and that the aspect of perfectivity denoted by the bare infinitive was in a developmental stage.

In the case of the causative verb *let*, as shown in (80), there are also examples with the *to*-infinitival complement. One possible reason for the existence of such examples that would be considered ungrammatical in Present-Day English is that the causative verb *let* in those days also may have had a different meaning than it does in Present-Day English.

(80) a. And ***leet*** hem ***to drawe*** on þe pauement
(Arthur and Merlin, 367. Later version, c.1400; Ziegeler 2006: 126)

b. Forsoþe Joiade, þe bischop, hadde not ***leetyn*** þe cumpanyes ***to gon*** awey,
(Wycliffe Bible Early Version. 2 Chronicles 23: 8)

c. Some haue vsed to deuide the enemies force, by ***lettyng*** him ***to enter*** into their countrie.
(1562 P. Whitehorne tr. N. Machiavelli *Arte of Warre* vi. f. xc; OED. *let*, *v.*1. 12b)

d. Why does he ***let*** so many other Gods ***to do*** nothing at all?
(1678 R. Cudworth tr. Cicero in *True Intellect. Syst. Universe* i. iv. 437; ibid.)

Table 10 shows the infinitival selection in the complement for the active form of the causative verb *let* in Middle English and Early Modern English. As can be seen, there are a few *to*-infinitival complements of the causative verb *let*. This is because, as Visser (1973: 2260, 2293-2294) also points out, the distinction between the meanings of *let* and *allow* is not always clear in Middle English.[23] This study also conducted research using Early English Books Online (EEBO) and shows such examples existed until the first half of the 17th century, although they are fairly small in number, as shown in Table 11. Note that the figures in parentheses in Table 11 are per million words.

Table 10. Distribution of the Active Form of the Causative Verb *let* and Infinitives in Texts from Middle English to Modern English

Infinitival Selection in the Complement of *let*	Bare Infinitive	TO Infinitive
EME poet (Jack 1991: 323)	59	
Brut [1190-1215] (Kuwayama 2003: 155)	224	1
Gawain [Late 13th Century] (Kumamoto 2001: 116)	20	1
Chaucer [1343-1400] (Kumamoto 2001: 116)	95	3
Malory [1399-1471] (Nakashima 1981: 214)	235	1
Cely Letters [1472-1488] (Nakashima 2002: 145)	61	1
Caxton [1415-1492] (Ando 1988: 227)	109	2
Paston Letters [1422-1509] (Mano 2009: 254)	243	3
Marlowe [1564-1593] (Ando 1978: 528)	26	

Table 11. Distribution of *let NP to-Inf* in EEBO

Late 15c	Early 16c	Late 16c	Early 17c	Late 17c	TOTAL
36	146	473	347	280	1,282
(5.61)	(6.92)	(4.44)	(1.64)	(0.68)	(1.7)

The reason for the small number of such examples is due to the emergence of an idiomatic imperative use of *let* to indicate "commands to third parties" and "prayers," as in (81) and (82).

(81) a. And ***let*** the Priestes also which come to the Lord ***be sanctified***, lest the Lord destroy them. (Geneva Bible. Exodus 19: 22)

b. Even the priests who approach the Lord must consecrate themselves or the Lord will break out against them."

(New Revised Standard Version. Exodus 19: 22)

(82) a. Then he saide, ***Let*** not my Lord ***be*** nowe angrie, and I will speak but this once, What if ten be found there? And he answered, I will not destroy it for ten's sake. (Geneva Bible. Genesis 18: 32)

b. Abraham said, "Please don't be angry, Lord, and I will speak only once more. What if only ten are found?" He said, "I will not destroy it if there are ten."

(Good News Bible. Genesis 18: 32)

According to Ando (2005: 882), these expressions arose in the 13th century and the MED (*s.v. leten*, 10a) shows their first appearances from the 13th century to the 14th century, as shown in (83). Muraoka (2022d: 11) also states that these idiomatic expressions of *let* were widely used in Modern English.

(83) a. ***Let*** him vs alle ***kniȝte***
(c1300 (?c1225) Horn (Cmb Gg.4.27) 515; MED. *leten.* 10a)
b. Ah ***late*** [Otho: lete] we hine ***welden*** his folc on his willen.
(c1275 (?a1200) Lay. Brut (Clg A.9) 3335; ibid.)
c. Now ***lat*** vs ***ryde***, and herkneth what I seye.
((c1387-95) Chaucer CT.Prol. (Manly-Rickert) A.855; ibid.)

According to Huddleston and Pullum (2002: 936), the imperative use of *let* is used to request the fulfillment of a situation in the same way as a normal imperative, even though the utterance is not addressed to a specific audience. Prayer is considered a request for the fulfillment or realization of a request for God. In addition, as we have seen in 2.1.1, the bare infinitive in the complement of causative verbs has the aspectual property of perfectivity (cf. Akmajian (1977) and Duffley (1992)). Therefore, it is assumed that *let NP to-Inf* declined and *let NP Inf* was established due to the semantic connection between the fulfillment or realization of the content of commands or prayers and the perfectivity of the bare infinitive. Therefore, the occurrence of *be* is obligatory even when the causative verb *let* is accompanied by the present or past participial complement, as in (84) and (85).

(84) a. *We ***let*** John ***drawing*** a circle. (Felser 1999: 56)
b. *We usually ***let*** the children ***staying*** up late on Saturdays. (Swan 2005[3]: 302)
c. ****Let*** the door ***closed***. (Nakamura 2018: 246)

(85) a. Let's ***let*** Othello ***be thinking*** of his next move at this point in the play.
(Gee 1977: 480)
b. We ***let*** John ***be interviewed*** by a reporter. (Akmajian et al. 1979: 42)

Also, as noted partially in 1.2.1, expressions such as (84) have been diachronically detected, as shown in (86) but it is assumed that these expressions also declined since *let NP Inf* was established due to the semantic connection between the fulfillment or

realization of the content of commands or prayers and the perfectivity of the bare infinitive.

(86) a. With his triumphe, and laurer-corouned thus, … ***Let*** I this noble prince Theseus Toward Athenes in his wey ***rydinge***, …
(Geoffrey Chaucer, *Anelida and Arcite*, 43-46; Yamakawa 1963: 95)
b. ***let*** nothing ***done*** or ***spoken*** at this table, (1573. EBBO)

Thus, because the meaning of the causative verbs was not originally established as it is in Present-Day English, there was a corresponding diversity in the non-finite verbs used in their complements.

2.2.3. Infinitival Selection in the Complements for the Active Forms of Causative Verbs in Modern English

As for the causative verb *make* in Modern English, Iyeiri (2018) states that the frequency of the infinitives changed during the 16th century, as shown in Table 12, after which the frequency of the bare infinitival complement increased rapidly.

Table 12. Distribution of the Causative Verb *make* and Infinitives from the 16th Century to the 17th Century (cf. Iyeiri 2018: 143)

	TO Infinitive	Bare Infinitive	TOTAL
A16th-1 (1501-1550)	**151 (68.6%)**	68 (31.4%)	220
A16th-2 (1551-1600)	115 (36.5%)	**200 (63.5%)**	315
A17th-1 (1601-1650)	115 (36.1%)	**204 (63.9%)**	319
A17th-2 (1651-1700)	60 (17.4%)	**284 (82.6%)**	344

This is because *make NP Inf* which had not been established until then (cf. Iyeiri (2012: 71)) began to be used as the causative verb indicating the coercive causation after Late Middle English (cf. Baron (1977: 74) and Terasawa (1985: 135)).[24] However, why did the frequency of *make NP to-Inf* decrease? Hotta (2019) provides a phonetic analysis of this issue, as shown in (87). According to him, the bare infinitival complement was

established because it was rhythmical, while the *to*-infinitival complement declined because it was not.

(87) a. She ***máde*** me ***láugh***. (Rhythmical→Established) (Hotta 2019: 63)
b. She ***máde*** me ***to láugh***. (Non-rhythmical→Obsolescence) (ibid.)

Moreover, Kubozono and Yokogoshi (1991: 153-154) state that such phonetic analysis applies to common nouns of the logical subject in the complement. However, if (87b) is considered ungrammatical due to these phonological factors, then it cannot explain the following acceptability. The following verbs instead take the *to*-infinitive in their complements, and those with the bare infinitive are considered ungrammatical, as in (88).

(88) a. *Evelle ***forced*** Jerry ***change*** his plans. (Noonan 2007[2]: 56)
b. Evelle ***forced*** Jerry ***to change*** his plans. (ibid.)
c. *Joe ***wants*** Pierre ***retire***. (ibid.)
d. Joe ***wants*** Pierre ***to retire***. (ibid.)
e. *Henry ***allowed*** Dick ***speak***. (ibid.)
f. Henry ***allowed*** Dick ***to speak***. (ibid.)

Moreover, in my survey for the causative verb *make* and infinitival complements in the English Bibles, *make NP to-Inf* in the Bibles is confirmed until RV (Late Modern English), as shown in Table 13 (the numbers in parentheses in this table represent the number of first occurrences in that Bible).

Table 13. Distribution of Infinitival Complements for the Active Form of the Causative Verb *make*

	EV	LV	GB	AV	RV	RSV	NRSV
make NP Inf	36	29 (9)	79 (54)	**105** **(38)**	79 (8)	**266** **(100)**	**247** **(18)**
make NP *to*-Inf	**226**	**247** **(11)**	**181** **(115)**	**190** **(38)**	**220** **(33)**	52 (8)	13 (0)

Visser (1973: 2261), Baron (1977: 74) and OED (*s.v. make*, 39a) also state that *make NP to-Inf* was found until Late Modern English. Yamamura (2015: 10), who investigated the distribution of the causative verb *make* and infinitival complements in PPCMBE, also found that in Late Modern English, 19.7% of the active forms of the causative verb *make*

were *make NP to-Inf*. However, this may be because the Revised Version and the usage at that time were considerably affected by the Authorized Version. This paper conducted a survey for examples in the 19th century using A Representative Corpus of Historical English Registers (ARCHER) and was only able to collect examples related to the English Bible, as in (89). Therefore, the acceptability of *make NP to-Inf* in the 19th century presented by Visser is likewise likely to be influenced by the English Bible.

(89) a. Come ye after me, and I will ***make*** you ***to become*** fishers of men.
(ARCHER. 1843wils_h5b)
b. so far reflects upon the love and goodness of God as to ***make*** Him ***to blame*** for this effeteness of Christianity, (ARCHER. 1880boot_h6b)

Regarding the acceptability of the infinitival complements of the causative verb *make* in Modern English, it is assumed that as *make NP Inf* began to be used as the marker of the causative verb to indicate that someone or something forces or compels an action or event to occur as in Present-Day English, *make NP to-Inf* declined due to the rise of other causative verbs and semantic competition with them.[25] As evidence of this, *make NP to-Inf* changes into *cause NP to-Inf*, as demonstrated in (71), (72) and (73). The factor for the semantic competition between *make NP to-Inf* and *cause NP to-Inf* is that the causative verb *do* was used with the same meaning of the verb *cause* from the beginning of the 13th century to the end of the 15th century (cf. Yamakawa (1951: 76)), and with the grammaticalization of *do*, *make* and *cause* took over the causative meaning of the verb *do*. (cf. Ukaji (2000: 283)). Later, with the emergence of the verb *cause*, *cause* took over the indirect use that *make* had previously occupied, and it is assumed that the causative verb *make* took only the bare infinitive in its complement and came to indicate only the compulsory causation (cf. Fischer (1997: 127)). Furthermore, according to Martín and Barranco (2015), who analyzed a corpus of medical texts in Modern English, the total number of the causative verb *make* decreased with the advent of *cause*. Muraoka (2021a: 12) also states that about 56.6% of *cause NP to-Inf* in the New Revised Standard Version was *make NP to-Inf* in the earlier Bibles. According to Konishi (2006: 700), in Present-Day English, the causative verb *make* has a strong compulsory meaning, but is sometimes used in the sense of *cause*, as in "You ***made*** me ***forget*** my misfortunes."[26] From these linguistic facts, it is assumed that *make NP to-Inf* was semantically similar to *cause NP to-Inf* at that time. Furthermore, *make NP to-Inf* changes into the causative verb *have*, as shown in (90).[27]

(90) a. and ***made*** him ***to steyȝ*** vpon his second chaar, criynge a bidele, that alle men schulden bifore hym knele, and thei schulden wite hym to be prouest to al the loond of Egipte. (Wycliffe Bible Early Version. Genesis 41: 43)

b. and Farao ***made*** Joseph ***to `stie*** on his secounde chare, while a bidele criede, that alle men schulden knele bifore hym, and schulden knowe that he was souereyn of al the lond of Egipt.
(Wycliffe Bible Late Version. Genesis 41: 43)

c. So he <u>set him</u> vpon the best charet that hee had, saue one: and they cryed before him, Abrech, and placed him ouer all the land of Egypt.
(Geneva Bible. Genesis 41: 43)

d. And he ***made*** him ***to ride*** in the second chariot which he had; and they cried before him, Bow the knee: and he made him ruler over all the land of Egypt.
(Authorized Version. Genesis 41: 43)

e. and he ***made*** him ***to ride*** in the second chariot which he had; and they cried before him, Bow the knee: and he set him over all the land of Egypt.
(Revised Version. Genesis 41: 43)

f. and he ***made*** him ***to ride*** in his second chariot; and they cried before him, "Bow the knee!" Thus he set him over all the land of Egypt.
(Revised Standard Version. Genesis 41: 43)

g. He <u>***had*** him ***ride***</u> in the chariot of his second-in-command; and they cried out in front of him, “Bow the knee!” Thus he set him over all the land of Egypt.
(New Revised Standard Version. Genesis 41: 43)

According to den Dikken (1997: 146), “John ***had*** Mary ***do***” is paraphrasable as “John ***caused*** Mary ***to have*** to do this.” This statement could be that *make NP to-Inf*, which has a similar meaning to *cause NP to-Inf*, has a semantic connection to the causative verb *have*. Ando (1978: 533) also notes the interchangeable co-occurrence of *have* and *make* in the following passage.

(91) Shall I ***make*** spirits ***fetch*** me what I please …? Ile ***have*** them ***flye*** to India for gold … Ile ***have*** them ***reade*** mee straunge philosohie … Ile ***have*** them ***wall*** all Iremany with brasse, And ***make*** swift Rhine ***circle*** faire Wertenberge. Ile ***have*** them ***fill*** the reblike schooles with silk … Ile ***make*** my seruile spirits ***to inuent***
(1F 107-25; Ando 1978: 533)

According to Hollmann (2003: 70), the first appearance of the causative verb *have* was in 1440, although Łęcki (2010: 198-199) provides examples attesting this long before 1440. It is assumed that the causative verb *make* was used as a substitute before the establishment of other causative verbs such as *cause* and *have* and before the establishment of *make NP Inf* as the marker of the coercive causation. The reason the causative verb *make* was used to indicate not only the compulsory causation but also the directive causation is that – as mentioned above – with the grammaticalization of the verb *do*, the causative verb *make* was in competition with the causative verb *do* in Middle English, which had been the mainstream of the causative verbs until then (cf. Matsuse (1993) and Manabe (1995)). According to Torrego (1998: 74), in Romance languages, there are no causative verbs such as *cause*, *have* and *get* as in English, and the causative verb *make* is used for all causative events. Wierzbicka (2006: 183) states that English has a broad spectrum of causative constructions available for talking about one person wanting another person to do something, and these constructions distinguish between various conceptual scenarios that have not been similarly differentiated in other languages (cf. Inoue (2021: 162)) and Kayne (1993: 24) also states that English is the only language that has the causative verb *have*, to his knowledge. These linguistic facts suggest that the causative verb *make* was originally used not only for the compulsory causation as it is in Present-Day English, but also for a variety of the causative events, and the infinitives were used according to the causative meanings, and then *make NP to-Inf* may have declined due to the rise of other causative verbs and semantic competition with them. According to Nishimura and Yano (2013: 131), the meaning of the causative verbs is connected to how we perceive the causality. This paper suggests that the different usages of causative verbs have emerged since Modern English. However, at the same time, sociolinguistic factors may have greatly affected the use and the meanings of causative verbs, as society has undergone significant changes since Modern English, including the leveling of social class, the development of capitalism, and the accompanying development of the marketplace.

2.2.4. Summary

In this section, we have analyzed the instability of the use of infinitival complements in the causative verbs *make* and *let*. They did not originally establish the same meaning as in Present-Day English, so they could take the bare infinitive and *to*-infinitive in their complements. Since Modern English, the causative verb *make* came to be used to indicate the coercive causation and *make NP to-Inf* began to decline along with the advent of the

lexical causative verbs and other accusative with infinitive constructions, which established the usage with the bare infinitive in its complement. On the other hand, the causative verb *let* also took the *to*-infinitival complement, but due to the idiomatic imperative use of *let*, which indicates commands to third parties and prayer, *let NP to-Inf* declined and *let NP Inf* was established due to the semantic connection between the fulfillment or realization of the content of commands or prayers and the perfectivity of the bare infinitive.

2.3. Synchronic Analysis on Infinitival Selection in the Complements for the Passive Forms of Causative Verbs

As explained in 1.1, the active form of causative verbs such as *make*, *have* and *let* takes not the *to*-infinitival complement but the bare infinitival complement, as in (92).

(92) a. I ***made*** John ***wash*** the dishes. (Blanco 2011: 147)
b. *I ***made*** John ***to wash*** the dishes. (ibid.)
c. The doctor ***had*** his patient ***breathe*** deeply. (Baron 1977: 53)
d. *The doctor ***had*** his patient ***to breathe*** deeply. (ibid.)
e. The judge ***let*** Spiro ***go***. (Noonan 2007[2]: 56)
f. *The judge ***let*** Spiro ***to go***. (ibid.)

On the other hand, the infinitival selection is reversed in the complement for the passive form of the causative verb *make*, as in (93).[28]

(93) a. Peter ***was made to go***. (Gisborne 2010: 111)
b. *Peter ***was made go***. (ibid.)

According to Ando (2005: 240; 2008: 117), the causative verb *have* cannot be passivized due to its weak transitivity, as in (94a-d). Although Nakano (2023: 121) provides the grammatical example, as shown in (94e), Kenichiro Nakano (p.c.) states that the grammaticality of (94e) is erroneous.

(94) a. *John ***was had to go***. (Ando 2008: 117)
b. *The secretary ***was had retype*** the letters. (Goldsmilth 1984: 127)
c. *The children ***were had clean*** up the play room.
(Bjorkman and Cowper 2013: 2)

d. *We ***were*** all ***had laughing***. (Ando 2005: 240)
e. His secretary ***was had to fax*** the information (by him). (Nakano 2023: 121)

Many previous studies, such as Konishi (1999: 36), Swan (1995[2]: 307; 2005[3]: 303), suggest that the causative verb *let* cannot be passivized regardless of the infinitival selection, as in (95).

(95) a. *The dog ***was let to cross*** the road. (Gisborne 2010: 200)
b. *They ***were let stay*** a while. (Palmer 1987[2]: 195)

Eastwood (1994: 139) and Biber et al. (1999: 481) state that the passive form of the causative verb *let* is extremely rare. According to Hornby (1975[2]: 66), instead of the passive form of the causative verb *let*, *be allowed to-Inf* is often used. However, previous studies such as Quirk et al. (1972: 841), Zandvoort (1972[7]: 19) and Kuno and Takami (2014: 139-141) accept the expression such as (95b). Quirk at al. (1985: 1205) take the passive form such as *be let go* and *be let fall* as grammatically correct, and Jespersen (1940: 317) agrees that such passive forms are grammatically correct, but they cannot be followed by the *to*-infinitival complement. However, these expressions seem not to have causative meaning. As evidence for this, Santorini and Heycock (1988: 7) offer the following examples.

(96) a. Half of prisoners ***were let go*** yesterday. (Santorini and Heycock 1988: 7)
b. *Our kids ***aren't let go*** to store alone at night. (ibid.)

However, (96a) can be regarded as a passive form of *let go* (*of*) *NP*, as in (97), which means to stop holding or gripping (something or someone).

(97) a. The butler ***was let go*** (of). (Anderson 2005: 50)
b. It ***was let go*** of. (Chalker 1984: 150)

This paper assumes that *let go of NP* as an idiomaticalized expression, showing some different syntactic behaviors between *let go* (*of*) and the causative verb *let*, as shown in (98). The causative verb *let* in *let NP go* can co-occur with an adverbial phrase indicating a location, as shown in (98a) and (98c), while *let go* (*of*) *NP* – which does not indicate causative meaning – cannot, as in (98b) and (98d).

(98) a. He ***let*** the butler ***go*** {away / to Paris / out of the room}. (Anderson 2005: 45)
b. *He ***let go*** the butler {away / to Paris / out of the room}. (ibid.)
c. She ***let*** him ***go*** where he wanted. (Givón 2001: 46)
d. *She ***let go*** of him where he wanted. (ibid.)

Therefore, we can conclude that (96a) also does not have the causative meaning. However, previous studies such as Quirk et al. (1972), Zandvoort (1972[7]) and Kuno and Takami (2014) provide the examples of the passive form of the causative verb *let* with the bare infinitive with verbs other than *go* and *fall*, as shown in (99).

(99) a. The grass ***was let grow***. (Quirk et al. 1972: 841)
b. I ***was let see*** him. (COD[5]; Ando 2005: 831)
c. He ***was let die*** in a ditch and was buried by the parish.
(Kuno and Takami 2014: 132)

Moreover, Kuno and Takami's (2014: 126) informant survey shows that the *to*-infinitival complement for the passive form of the causative verb *let* seems to be used in a dialect or foreign language other than English. This section seeks to define the constraints on infinitival selection in complements for the passive form of these causative verbs.

As examples of previous syntactic studies on this issue, Hornstein et al. (2006; 2008) discuss the infinitival selection in the active and passive form of the causative verb *make* contrasting that of the active and passive form of the perception verbs, as in (100).

(100) a. John {***saw*** / ***heard*** / ***made***} them ***hit*** Fred. (Hornstein et al. 2008: 198)
b. *John {***saw*** / ***heard*** / ***made***} them ***to hit*** Fred. (ibid.)
c. *They ***were*** {***seen*** / ***heard*** / ***made***} ***hit*** Fred. (ibid.)
d. They ***were*** {***seen*** / ***heard*** / ***made***} ***to hit*** Fred. (ibid.)

They assume that the type of v $_{\text{CAUSE}}$ realized by *make* selects a TP complement, and further assume that the embedded (infinitival) TP is defective, as it lacks a person feature that case-values the embedded DP. They open their analysis by noticing the following contrast.

(101) a. He ***was made to read*** the book. (Blanco 2011: 148)
b. *He ***was made read*** the book. (ibid.)

Their explanation is entirely based on the agree framework developed by Chomsky (2000; 2001), whereby case assignment is based on agreement relations between clausal elements. They claim that the realization of the *to*-infinitive in the passive forms of the causative and perception verbs is the consequence of the failure of embedded infinitival T to have its case feature valued by matrix T. They argue that this situation is the consequence of the intervention of the past participle, which also needs to have its case feature valued by the same matrix T. The presence of the *to*-infinitive is then treated as a morphological reflex of an inherent case assigner that appears in the event of a case-less infinitive. That is, because the lower T cannot have its case features valued by higher T, the preposition *to* appears so it can assign the case-less embedded T its oblique case (cf. Blanco (2011: 148-149)). The illustration of Hornstein et al.'s analysis is shown in (102).

(102) a. Mary ***was seen to leave***. (Hornstein et al. 2008: 217)

b. [$_{TP}$ T $_{[P:3] / [N:SG] / EPP}$ [$_{VP}$ be [$_{PartP}$ -en $_{[G:FEM] / [N:SG] / [Case:NOM]}$ [$_{VP}$ see [$_{TP}$ Mary $_{[P:3] / [G:FEM] / [N:SG] / [Case:NOM]}$ [$_{T'}$ T $_{[N:SG] / [Case:u] / \sout{EPP}}$ [$_{VP}$ *t* leave]]]]]]] (ibid.)

In (102), the case feature in T is unvalued, because the past participle *-en* intervenes (it values the case feature given by matrix T to non-finite verbal forms). They compare the insertion of the *to*-infinitive in (102) with the insertion of a preposition *of* in the case of case-less nominals (e.g., the destruction *(of) the city). That is, the insertion of the *to*-infinitive is viewed by these authors as a repair strategy to save derivations in which structures are case-less. However, Blanco (2011: 149) provides the following counterexamples to this analysis and states that (103a) does not take the *to*-infinitival complement despite the intervention of the past participle *-en*.

(103) a. Mary ***has made*** John ***leave***. (Blanco 2011: 149)

b. I'll not ***have*** him ***made suffer***!

(Ervine, St. John G. *John Ferguson*: *A Play in Four Acts*.)

Similar examples have been identified in the complements of perception verbs.

(104) a. She withdrew her hands quickly, I ***had*** never ***seen*** her ***make*** so rapid a movement; and her cheeks flushed.

(W. Somerset Maugham: *The Moon and Sixpence*, Chapter XXV.)

b. Do you know, I'***ve seen*** them ***sit*** there for hours together without saying a word? (W. Somerset Maugham: *The Moon and Sixpence*, Chapter XXVI.)

Moreover, Hornstein et al.'s analysis also fails to account for the fact that the passive form of the causative verb *let* takes the bare infinitive in its complement, as shown below.

(105) a. The grass ***was let grow***. (Quirk et al. 1972: 841)
b. I ***was let see*** him. (COD[5]; Ando 2005: 831)
c. He ***was let die*** in a ditch and was buried by the parish.
(Kuno and Takami 2014: 132)

Previous studies such as Ichikawa (1954: 227), Egawa (1964[2]: 289), Kubozono and Mizokoshi (1991: 153-154), and Hotta (2019) analyze the problem of (93) from a phonological perspective. Among them, Hotta (2019) considers *make NP to-Inf* and *be made Inf* to be ungrammatical because they are not rhythmic, as shown below.

(106) a. She ***máde*** me ***láugh***. (Rhythmical → Established) (Hotta 2019: 63)
b. She ***máde*** me ***to láugh***. (Non-rhythmical → Obsolescence) (ibid.)
c. Í ***was máde láugh*** by hér. (Non-rhythmical → Obsolescence) (ibid.)
d. Í ***was máde to láugh*** by hér. (Rhythmical → Established) (ibid.)

However, as mentioned earlier, this analysis fails to account for the acceptability of (107). Besides, it also fails to account for the acceptability of (105).

(107) a. *Evelle ***forced*** Jerry ***change*** his plans. (Noonan 2007[2]: 56)
b. Evelle ***forced*** Jerry ***to change*** his plans. (ibid.)
c. *Joe ***wants*** Pierre ***retire***. (ibid.)
d. Joe ***wants*** Pierre ***to retire***. (ibid.)
e. *Henry ***allowed*** Dick ***speak***. (ibid.)
f. Henry ***allowed*** Dick ***to speak***. (ibid.)

As a semantic approach of the problem in (93), Onions (1904: 113) states that there is no semantic difference between "We ***made*** the machine ***work***" and "The machine ***was made to work***" and that the *to*-infinitive is merely a sign of the infinitive. However, Yasui (1996: 305) and Yasui and Yasui (2022: 436) state that a speaker, who sees the whole action, uses the active form as in (108a). However, a speaker, who leaves the scene after seeing the crowd and returns later to find no crowd and only police officers there, uses the passive form, as in (108b).

(108) a. The police ***made*** the crowd ***disperse***. (Yasui and Yasui 2022: 436)
b. The crowd ***were made to disperse***. (ibid.)

This is similar to the semantic differences between *cause NP to-Inf* and *make NP Inf*, as shown below. As we have seen in 2.1.4, Lauer (2010) states that when a hurricane hits a city and destroys a house a few days later, the verb *cause* with the *to*-infinitival complement is used instead of the causative verb *make*, and when a hurricane hits a city and destroys a house at the same time, the causative verb *make* with the bare infinitival complement is used, as shown in (109).

(109) a. The hurricane ***caused*** the house ***to collapse***. (Lauer 2010: 10)
b. The hurricane ***made*** the house ***collapse***. (ibid.)

According to Zandvoort (1972[7]: 19), *be made to-Inf* is synonymous with the verb *cause*, as shown in (110), and according to Gilquin (2010: 216), *cause NP to-Inf* indicates the process of the caused action.

(110) He ***was made to repeat*** everything. (=cause) (Zandvoort 1972[7]: 19)

Yagi (1999: 117) suggests that *be made to-Inf* is used in a different sense than that of the corresponding active sentence *make NP Inf* and claims that in the case of passive form, a person is forced to do something as a result of resistance, rather than voluntarily (cf. Lee (1996: 409)).[29] This analysis that *make NP Inf* and *be made to-Inf* are semantically different can be supported by the following examples. Because the meaning of the resistance cannot be implied in (111), *be made to-Inf* in (112) is not acceptable.

(111) a. The rain ***made*** the mushrooms ***come*** out. (Mittwoch 1990: 113)
b. The sun ***made*** the sea ***glisten***. (Inoue 1992: 145)
c. Fear ***made*** John ***tremble***. (ibid.)

(112) a. *The mushrooms ***were made to come*** out. (Fujimoto 1995: 173)
b. *The sea ***was made to glisten*** by the sun. (Inoue 1992: 145)
c. *John ***was made to tremble*** by fear. (ibid.)

Givón (1993: 13) also states that the coercive power of the verb *force*, which is semantically similar to the causative verb *make*, indicates that the manipulation is meeting resistance. Therefore, this paper assumes that the causative verb *make* – which implies the coercive causation – also indicates that the manipulation is meeting the resistance (cf. Kuno and Takami (2005: 166)). From these explanations, the passive form of the causative verb *make* usually takes the *to*-infinitive in its complement, which is future-oriented and indicates the process of the caused action, depending on the meanings of the resistance, annoyance, or mental distress of the causee. In addition, Takami and Kuno (2007: 229), who analyze the passive form of causative verbs in Japanese, argue that such meanings as the resistance, annoyance, or mental distress of the causee occur only in the sense of the compulsory causation. So, it is assumed that in the passive form of the causative verb *let*, which indicates not the coercive causation but the permission or acceptance, the bare infinitive is used, as shown below.

(113) He ***was let die*** in a ditch and was buried by the parish.

(Kuno and Takami 2014: 132)

Furthermore, according to Kuno and Takami (2014: 141), the passive form of the causative verb *let* with the bare infinitive could be acceptable if a verb phrase after *be let* implies a habit or character of the logical subject, and if the activity or state automatically occurs. This study assumes that due to the meaning of "automatically occurring action or state," the bare infinitive indicating the simultaneity and perfectivity is used in the complement for the passive form of the causative verb *let*. Verspoor (1999: 524) states that the causative verb *let* with the bare infinitive implies simultaneity between the action of the main clause and the action of the complement, as the causative verb *make* does. Kasai (2001: 16) also observes that because the meaning of the noninterference in the causative verb *let* does not lose its simultaneity even in the passive form, the bare infinitive is used in its complement.

However, if *be let Inf* is grammatically correct, why is *be made Inf* not grammatical? As for the use of *be made Inf*, Felser (1999: 55) presents an example for the passive form of the causative verb *make* with the bare infinitive, but it is limited to idiomatic expressions such as *be made believe*, and Wood (1964: 174) mentions that it is difficult to define idiomatic constraints on this construction.

(114) a. She ***was made believe*** that she wouldn't have to pay anything.
(Felser 1999: 55)
b. He ***was made sign*** the statement. (Wood 1964: 174)

As a result of a survey of these expressions using corpora such as British National Corpus (BNC) and Corpus of Contemporary American English (COCA), the use was quite limited (in this survey on BNC and COCA, the search formula "Pronoun + (auxiliaries) be made (*to*-)Inf" is used in order to exclude cases which can be formally interpreted as *be made Inf* due to an intervention of relative clauses. In addition, the pronouns which are used in the search formula were limited to those with a feature of animacy, and pronouns with no feature of animacy, such as *it* and *they*, were excluded in order to rule out cases in which *be made to-Inf* indicates the meaning of "something is made in order to do" and in order to compare the distribution of *be made Inf* and *be made to-Inf*, under the same conditions). To begin with, in BNC, three instances of *be made Inf* can be found, as in (115) while 85 instances of *be made to-Inf* can. However, all examples of *be made Inf* in (115) are cited from Duffley (1992) (or Wood (1964)).

(115) a. He ***was made sign*** the statement. (BNC. W_ac_soc_science)
b. He ***was made give*** them the money. (BNC. W_ac_soc_science)
c. I was glad to ***be made go***. (BNC. W_ac_soc_science)

Next, in COCA, no instances of *be made Inf* can be found, while 744 instances of *be made to-Inf* can. According to Duffley (1992: 78) and Kirchner (1952: 456), these expressions in (116) are common in Irish English.

(116) a. It wasn't pleasant to ***be made feel*** like a good-for-nothing little brat.
(George Bernard Shaw. *Cashel Byron Professional*; Kirchner 1952: 456)
b. I'll not ***have him made suffer***!
(St. John Greer Ervine. *A Play in Four Acts*; ibid.)
c. I was glad to ***be made go***. (Con O'Leary, no reference given; ibid.)

Presenting the following examples, as in (117), Duffley (1992: 79) states that the bare infinitive is used in reference to undergoing unpleasant treatment, where the speaker clearly wishes to stress the realization of a distasteful experience which was forced and substitution of the *to*-infinitive gives a somewhat different impression: the events seem to be evoked in a much more resultative fashion as the fact of having been made to scream,

the state of Byron's feelings. That is, as an object of reflection rather than a recollection of actual experience. Then, Duffley (1992) states that while nothing definitive can be concluded from such meager data, the fact that such examples do seem to suggest different impressions than the *to*-infinitive to speakers of various dialects indicates that they deserve closer attention, especially in the light of a further examination of the passive form. Assuming that the bare infinitive has the meaning of perfectivity and simultaneity, even in the passive form of the causative verbs, (117a) indicates that the action in the complement occurred simultaneously, completely and resultatively, as in "I couldn't stand the pain and screamed." In addition, if the *to*-infinitive were to appear in this sentence, it would imply resistance in the causative action and that the causee screamed while enduring the pain, which would be semantically odd.

(117) a. You see, it's all real to me. I've suffered it. I've been shoved and bullied. I've had my arms twisted. I've ***been made scream*** with pain in other ways. I've been flung into a filthy cell with a lot of other poor wretches as if I were sack of coals being emptied into a cellar.

(George Bernard Shaw. *Fanny's First Play*; Duffley 1992: 79)

b. As to the holidays, they were the worst part of the year to me. When I was left at school I was savage at not being let go home; and when I went home, my mother did nothing but find fault with my schoolboy manners. I was getting too big to be cuddled as her darling boy, you understand. Her treatment of me was just the old game with the affectionate part left out. It wasn't pleasant, after being cock of the school, to ***be made feel*** like a good-for-nothing little brat tied to her apron strings.

(George Bernard Shaw. *Cashel Byron Professional*.; ibid.)

However, why is this kind of usage rare in standard Present-Day English? The following section discusses the possibility that because the causative verb *make* was established as the causative verb indicating the compulsory causation in Modern English and its passive form implies annoyance or resistance to the causative action due to its compulsory nature, the use of *be made Inf* began to decline in Late Modern English. Another possibility is that it is expected that *be made (to-)Inf* is too strong semantically. Gilquin (2010: 48) shows that the passive form of the causative verb *make* occurs only in 8% of all the *make* constructions. According to an informant survey by Kashino (2011: 49), *be made to-Inf* is used less frequently because it sometimes suggests violence, and instead *be asked to-Inf* and *be told to-Inf* are used. Halliday (2004[3]: 513) also points out that *be made to-Inf*

indicates a stronger deontic modality than the passive forms of other infinitive counterparts, as in (118).

(118) a. They ***were*** {***made*** / ***forced*** / ***required***} ***to*** accept. = They ***must*** accept.
(cf. Halliday 2004[3]: 513)
b. They ***were*** {***got*** / ***obliged***} ***to*** accept. = They ***should*** accept. (ibid.)
c. They ***were*** {***allowed*** / ***permitted***} ***to*** accept. = They ***may*** accept. (ibid.)

This suggests that *be made Inf* is used much less frequently than *be made to-Inf* because *be made Inf* is likely to be more violent than *be made to-Inf* due to the simultaneous completeness of the bare infinitive. This possibility will not be explored further in the next section, as there is no room for further verification.

As the conclusion, it was found that the passive form of the causative verb *make* semantically differs from the active form of the causative verb *make* and that the passive form of the causative verb *make* takes the *to*-infinitival complement indicating the process of the caused action due to the meaning of the annoyance or resistance of the causee to the causative action.

2.4. Diachronic Analysis on Infinitival Selection in the Complements for the Passive Form of the Causative Verb *make*

The previous section has discussed the infinitival selection in the complement for the passive form of the causative verb *make* and *let* in Present-Day English. The possibility that *be made to-Inf* is semantically similar to *cause NP to-Inf* is supported by the following examples. As shown in (119a-b), *cause NP to-Inf* is used in the Authorized Version and the Revised Version, whereas in later Bibles *be made to-Inf* is used, as in (119c-d).

(119) a. Give ye now commandment to ***cause*** these men ***to cease***, and that this city be not builded, until another commandment shall be given from me.
(Authorized Version. Ezra 4: 21)
b. Make ye now a decree to ***cause*** these men ***to cease***, and that this city be not builded, until a decree shall be made by me. (Revised Version. Ezra 4: 21)
c. Therefore make a decree that these men ***be made to cease***, and that this city be not rebuilt, until a decree is made by me.
(Revised Standard Version. Ezra 4: 21)

d. Therefore issue an order that these people ***be made to cease***, and that this city not be rebuilt, until I make a decree.

(New Revised Standard Version. Ezra 4: 21)

Additionally, in (120) and (121), *make NP to-Inf* in the Authorized Version is interpreted as *be made to-Inf* in later Bibles.

(120) a. That they shall drive thee from men, and thy dwelling shall be with the beasts of the field, and they shall ***make*** thee ***to eat*** grass as oxen, and they shall wet thee with the dew of heaven, and seven times shall pass over thee, till thou know that the most High ruleth in the kingdom of men, and giveth it to whomsoever he will. (Authorized Version. Daniel 4: 25)

b. that thou shalt be driven from men, and thy dwelling shall be with the beasts of the field, and thou shalt ***be made to eat*** grass as oxen, and shalt be wet with the dew of heaven, and seven times shall pass over thee; till thou know that the Most High ruleth in the kingdom of men, and giveth it to whomsoever he will. (Revised Version. Daniel 4: 25)

c. that you shall be driven from among men, and your dwelling shall be with the beasts of the field; you shall ***be made to eat*** grass like an ox, and you shall be wet with the dew of heaven, and seven times shall pass over you, till you know that the Most High rules the kingdom of men, and gives it to whom he will. (Revised Standard Version. Daniel 4: 25)

d. You shall be driven away from human society, and your dwelling shall be with the wild animals. You shall ***be made to eat*** grass like oxen, you shall be bathed with the dew of heaven, and seven times shall pass over you, until you have learned that the Most High has sovereignty over the kingdom of mortals, and gives it to whom he will.

(New Revised Standard Version. Daniel 4: 25)

(121) a. And they shall drive thee from men, and thy dwelling shall be with the beasts of the field: they shall ***make*** thee ***to eat*** grass as oxen, and seven times shall pass over thee, until thou know that the most High ruleth in the kingdom of men, and giveth it to whomsoever he will.

(Authorized Version. Daniel 4: 32)

b. and thou shalt be driven from men, and thy dwelling shall be with the beasts of the field; thou shalt ***be made to eat*** grass as oxen, and seven times shall

pass over thee; until thou know that the Most High ruleth in the kingdom of men, and giveth it to whomsoever he will. (Revised Version. Daniel 4: 32)

c. and you shall be driven from among men, and your dwelling shall be with the beasts of the field; and you shall ***be made to eat*** grass like an ox; and seven times shall pass over you, until you have learned that the Most High rules the kingdom of men and gives it to whom he will."

(Revised Standard Version. Daniel 4: 32)

d. You shall be driven away from human society, and your dwelling shall be with the animals of the field. You shall ***be made to eat*** grass like oxen, and seven times shall pass over you, until you have learned that the Most High has sovereignty over the kingdom of mortals and gives it to whom he will."

(New Revised Standard Version. Daniel 4: 32)

As mentioned in 2.2.2, *make NP to-Inf* may have almost the same semantic content as *cause NP to-Inf*. As evidence of this, there are many instances in the Bibles where *make NP to-Inf* has been changed into *cause NP to-Inf*, as in (122).

(122) a. And the Lord God shal take Irael `to her enemyes, for the synnes of Jeroboam, the which synnede, and ***made*** Irael ***to synne***.

(Wycliffe Bible Early Version. 1 Kings 14: 16)

b. And the Lord God schal bitake Israel to hise enemyes, for the synnes of Jeroboam, that synnede, and ***made*** Israel ***to do synne***.

(Wycliffe Bible Late Version. 1 Kings 14: 16)

c. And he shall giue Israel vp, because of the sinnes of Ieroboam, who did sinne, and ***made*** Israel ***to sinne***. (Geneva Bible. 1 Kings 14: 16)

d. And he shall give Israel up because of the sins of Jeroboam, who did sin, and who ***made*** Israel ***to sin***. (Authorized Version. 1 Kings 14: 16)

e. And he shall give Israel up because of the sins of Jeroboam, which he hath sinned, and wherewith he hath ***made*** Israel ***to sin***.

(Revised Version. 1 Kings 14: 16)

f. And he will give Israel up because of the sins of Jerobo'am, which he sinned and which he ***made*** Israel ***to sin***."

(Revised Standard Version. 1 Kings 14: 16)

g. He will give Israel up because of the sins of Jeroboam, which he sinned and which he ***caused*** Israel ***to commit***."

(New Revised Standard Version. 1 Kings 14: 16)

The following examples show that *be made to-Inf* has the historical connection to *cause NP to-Inf*, as Zandvoort (1972[7]: 19) states, and it has also a historical connection to *make NP to-Inf,* which was semantically similar to *cause NP to-Inf*.[30]

(123) a. and þer ben feblid aȝen hem þe tungis of hem. Alle þat seȝen hem ben disturbid. (Wycliffe Bible Early Version. Psalm 63: 9)
b. and the tungis of hem ben maad sijk ayens hem. Alle men ben disturblid, that sien hem; (Wycliffe Bible Late Version. Psalm 63: 9)
c. They shall ***cause*** their owne tongue ***to fall*** vpon them: and whosoeuer shall see them, shall flee away. (Geneva Bible. Psalm 64: 8)
d. So they shall ***make*** their own tongue ***to fall*** upon themselves: all that see them shall flee away. (Authorized Version. Psalm 64: 8)
e. So they shall ***be made to stumble***, their own tongue being against them: all that see them shall wag the head. (Revised Version. Psalm 64: 8)

This change from (123c) to (123d) seems to go against the change from *make NP to-Inf* in Middle English to *cause NP to-Inf* seen in 2.2.2, but these changes are common in English Bibles from Middle English and Modern English. This is because *make NP to-Inf* and *cause NP to-Inf* were semantically competing in Modern English and the two had similar meanings in Modern English, as shown in (124).

(124) a. and is deed in his synnes þat he synnede, doynge yuel before þe Lord, and goynge in þe weye of Jeroboam, and in þe synnes of hym, by þe whiche he ***made*** Yrael ***to synne***. (Wycliffe Bible Early Version. 1 King 16: 19)
b. and he was deed in hise synnes whiche he synnede, doynge yuel bifor the Lord, and goynge in the weie of Jeroboam, and in hise synnes, bi whiche he ***made*** Israel ***to do synne***. (Wycliffe Bible Late Version. 1 King 16: 19)
c. For his sinnes which hee sinned, in doing that which is euil in the sight of the Lord, in walking in the way of Ieroboam, and in his sinnes which he did, ***causing*** Israel ***to sinne***. (Geneva Bible. 1 King 16: 19)
d. For his sins which he sinned in doing evil in the sight of the Lord, in walking in the way of Jeroboam, and in his sin which he did, to ***make*** Israel ***to sin***. (Authorized Version. 1 King 16: 19)

e. for his sins which he sinned in doing that which was evil in the sight of the LORD, in walking in the way of Jeroboam, and in his sin which he did, to ***make*** Israel ***to sin***. (Revised Version. 1 King 16: 19)

f. because of his sins which he committed, doing evil in the sight of the LORD, walking in the way of Jerobo'am, and for his sin which he committed, ***making*** Israel ***to sin***. (Revised Standard Version. 1 King 16: 19)

g. because of the sins that he committed, doing evil in the sight of the Lord, walking in the way of Jeroboam, and for the sin that he committed, ***causing*** Israel ***to sin***. (New Revised Standard Version. 1 King 16: 19)

However, the use of *be made Inf* which is unacceptable in Present-Day English is also diachronically confirmed, as in (125a). According to Matsuse (1993: 6), who examined texts from the late 14th century, two cases of the bare infinitive, five cases of the *to*-infinitive, and two cases of the *for* + *to*-infinitive were detected.

(125) a. Ich ***am made reproce*** up alle myn enemis,
(PMPsalter, 30, 14; Matsuse 1993: 6)

b. [al thinges ***ben***] ***maked to dwelle*** in present sight.
(Usk TL.III.IV/167-168; ibid.)

c. Þet alle ssep þes ***byeþ ymad*** him uor ***to serui***. (Ayenb. 85/23-24; ibid.)

For these examples, the first appearance in the OED is given below. No examples were given of the passive form of the causative verb *do* with the bare infinitive, but an example with the *to*-infinitive is extant from 1599, as in (127).

(126) a. Pius Quintus .. ***was made beleeue*** that the Duke of Norfolke was a Catholike.
(1602 W. Watson *Decacordon Ten Quodlibeticall Questions* 343; OED. *make*, *v.*1. 39b)

b. I ***am made to vnderstand***, that you haue lent him visitation.
(a1616 W. Shakespeare *Measure for Measure* (1623) iii. i. 499; OED. *make*, *v.*1. 39a)

(127) Who smoke selleth, with smoke ***be don to dy***.
(1599. H. Buttes Dyets, *Dry Dinner sig*. P3v; OED. *do*, *v*. 29b(b))

According to Visser (1973: 2409), the structure with bare infinitival complements survived in a number of cases in Middle English and Modern English, as shown in (128) and (129).

(128) a. Seue nigt siþen euerilc on ***is let*** ut ***flege***.
(c1250 Gen. & Ex. 609; Visser 1973: 2409)
b. Thom a nerth-din ... ***was*** he ***laten passe***. (13 .. Curs. M. 20985; ibid.)
c. therfor thei ***werun let go***. (c1380 Wyclif, Acts Apostl. 15, 30; ibid.)
d. into the high frenzy ***was let fall*** some black drop, which turned her rhapsody to sluggishness.
(1928 Virginia Woolf, Orlando (1928) 159; Visser 1973: 2410)
e. The old cemeteries have not ***been let slip*** back from these standards (Sch).
(1954 The Times, Nov.6; ibid.)

(129) a. he, which hath his pris deserved ... ***Was made begin*** a middle borde.
(c1390 Gower, C. A. VIII, 720; Visser 1973: 2409)
b. al the world ... ***Was made obey***.
(c1458 Knyghthode & Bataile (EETS) 685; ibid.)
c. there the carre ***was made stonde***.
(c1475 Gregory's Chron. (Gairdner) p. 194; ibid.)
d. she had a very sufficient reason ... , as will instantly ***be made appear***.
(1686 Dryden, Defence of the Papers Written by the Late King (Wks., ed. Scott/S.) 222; Visser 1973: 2410)
e. your highness is to ***be made believe*** that ...
(1738 Swift, Polite Conversation (ed. Saintsbury) 10; ibid.)
f. [I] ***am made pay*** crimes I was but privy to.
(1841 R. Browning, Pippa Passes (Poet. Wks., World's Clasics); ibid.)

According to Yamamura (2015: 12), the distribution of infinitives in the complements for the passive form of the causative verb *make* from Middle English to Late Modern English is as follows. It seems that *be made Inf* seems to have already declined by Early Modern English.[31]

Table 14. Distribution of Infinitives in the Complements for the Passive Form of the Causative Verb *make* from Middle English to Late Modern English (cf. Yamamura 2015: 12)

	TO Inf	Bare Inf
PPCME2 (ME)	3 (60.0%)	2 (40.0%)
PPCEME (EModE)	19 (90.5%)	2 (9.5%)
PPCMBE (LModE)	22 (95.7%)	1 (4.3%)

This section discusses how *be made Inf* has declined by using corpora such as the Corpus of Historical American English (COHA) and EEBO. First, in COHA, six cases of *be made Inf* were detected, as in (130), while 754 cases of *be made to-Inf* were detected (in this survey on COHA, in order to rule out cases in which *be made to-Inf* indicates the meaning of "something is made in order to do" and in order to compare the distribution of *be made Inf* and *be made to-Inf,* under the same conditions, the search formula "Pronoun with the semantic feature of animacy + (auxiliaries) be made (*to*-)Inf" is used, as in the case of the survey of BNC and COCA). In particular, verbs with low dynamic property tend to be used in the bare infinitival complement of *be made Inf*, and it is possible that *be made to-Inf* and *be made Inf* are used differently in (130f).

(130) a. I ***was made feel*** that they thought everything, not merely my lord's property, (COHA. 1873. FIC)

b. I tell you, it would be a very good thing for Northwick, and every rogue like him, if he could ***be made serve*** his term in State's prison. (COHA. 1891. FIC)

c. The anger of the earth was a thing of fear; but he ***was made see*** that there were worse things, and they covered the faces of their children that his eyes might not rest on them. (COHA. 1909. FIC)

d. We ***were made remember*** the unlived-in Black Cottage and the wood-pile that warms "the frozen swamp as best it could with the slow, smokeless burning of decay"? (COHA. 1916. MAG)

e. we ***were made remember*** the wall that has some undiscovered enemy; the mountain that crushes the life of the village; the thousands and tens of thousands of gathered apples. (COHA. 1916. MAG)

f. He didn't like to ***be made to go*** to the store. When he got bigger, he'd ***be made go*** to the store a lot. (COHA. 1938. FIC)

In EEBO, 132 cases of *be made Inf* were detected, while 988 cases of *be made to-Inf* were detected. In this survey of EEBO, the search formula "Pronoun with the semantic feature of animacy + (auxiliaries) be made (*to*-)Inf" is also used, as in the case of the survey of BNC, COCA and COHA. Examples of *be made Inf* in EEBO are shown below.

(131) a. by this temptation i ***vvas made see*** more into the nature of the pomise, then ever i vvas before: for i lying novv trembling under the mighty hand of god, continually torn and rent by the thunderings of his justice; (EEBO. 1666)

b. and upon his Tryal i believe he will ***be made appear*** to be more a papist than a protestant; (EEBO. 1681)

c. adrian hearing this, believ'd not what anselme had said to him; he told him he could not believe but lysis was madder then ever, and that he ***was made do*** all those absurdities for to make others sport: (EEBO. 1653)

d. if any one makes a noise as he walks, he is tyed hand and foot like a calf that is carried to market, and lies so upon the place till dinner be ended; or else he ***is made gallop*** up and down the room upon all four like a beast: (EEBO. 1671)

The distribution of *be made Inf* and *be made to-Inf* by period is shown in Table 15. The results of this study, as in the analysis of Yamamura (2015: 12), *be made Inf* was declining in Early Modern English. The period of decline of *be made Inf* and period of decline of *make NP to-Inf* are close, and the period of increase in *make NP Inf* is also close to them. Therefore, it is assumed that *be made to-Inf* came to be accordingly established in Modern English, as the causative verb *make* came to be established as the marker for the coercive causation.

Table 15. Distribution of *be made (to-)Inf* in EEBO

	15c	16c	17c	TOTAL
be made Inf	3 (23.1%)	8 (8.4%)	119 (11.7%)	130 (11.5%)
be made *to*-Inf	10 (76.9%)	87 (91.6%)	899 (88.3%)	996 (88.5%)

In addition, when a survey was conducted using ARCHER, not a single case of *be made Inf* was detected. Yamamura (2015: 12) also states that only one case of *be made Inf* was detected in PPCMBE, as shown in Table 14. These observations show that structures with the *to*-infinitives were already predominant in Early Modern English. In EEBO, many examples of *be made believe* are detected, as in Table 16, so it is assumed that *be made Inf* in Modern English was also limited to idiomatic expressions such as *be made believe*, as shown in Felser's (1999: 55) analysis in (114).[32] Moreover, the number of *be made believe* and number of *be made to believe* are very close, as in Table 16. This may be because the expression of *be made believe* remained fossilized.

Table 16. Distribution of Verbs Used in *be made (to-)Inf* in EEBO

be made Inf			be made *to*-Inf		
1	believe	83	1	to be	80
2	appear	5	2	to believe	79
3	see, conform, pay, know	3	3	to understand	46
4	sit, frustrate, mention	2	4	to see	42
5	imagine, come, save, attend, unite, decorate, do, enter, hold, say, swear, declare, gallop, answer, speak, go, serve, tell, repent, continue, mind, brinf, steve	1	5	to do, to know	26
			6	to drink	24
			7	to serve	23
			8	to speak	20
			9	to go	19
			10	to live	17
			11	to say	16
			12	to suffer	14
			13	to reprove, to confess	13
			14	to stand	12
			15	to feel	10
			16	to bear, to come, to carry	9
			17	to hope, to possess	8
			18	to perceive, to receive	7
			19	to owe, to run, to cry	6
			20	to fear, to have, to love	5

In EEBO, stative verbs are used in the bare infinitival complement of *be made Inf*, while not only stative verbs but also dynamic verbs are used in the *to*-infinitival complement of *be made to-Inf,* as shown in Table 16. Thus, the reason behind the small number of *be*

made Inf in Modern English is that the causative verb *make* came to be established as the marker for the compulsory causation in Modern English. As mentioned above, *be make to-Inf* implies the causee's annoyance or resistance to the causative action, depending on the meaning of the causative verb *make*, which indicates the compulsory causation. So, it is assumed that the *to*-infinitive began to be used in the complement for the passive form of the causative verb *make* to imply the process of the caused action since the causative verb *make* was used for coercive causation in Modern English.

In sum, the passive form of the causative verb *make* in Present-Day English takes the *to*-infinitive in its complement, according to the meaning of the resistance and annoyance (the process of the caused action) derived from the meaning of the causative verb *make*. However, because the causative verb *make* was originally used to denote a variety of the causative events, and not just the coercive causation, there were originally no restrictions on the choice of the infinitival complements in its passive forms as well as its active forms. Later, when the causative verb *make* came to be used as an expression denoting the meaning of the coercive causation, the active form of the causative verb *make* began to take the bare infinitive indicating perfectivity in its complement according to its meaning of the coercive causation, while the passive form of *make* began to take the *to*-infinitive denoting the process of the caused action in its complement to indicate the resistance or annoyance was derived from the meaning of the coercive causation.

As for the the examples of *be let (to-)Inf*, although OED does show no examples of *be let Inf*, the examples of *be let to-Inf* are detected, as shown in (132).

(132) a. He was one of those mad Folks who ***are let to go*** abroad.
(1713 R. Steele *Englishman* No. 17. 186; OED. *let*, *v.*1. 12b)
b. I never ***am let to write*** half so much as I wish.
(1812 MOORE in Mem. (1853) I. 266; ibid.)
c. They ***were let to vnderstande***, what plots and meanes were made.
(1589 T. Cooper *Admon. People of Eng*. 125; OED. *let*, *v.*1. 13)
d. If your name be Horatio, as I ***am let to know*** it is.
(1604 W. Shakespeare *Hamlet* iv. vi. 10; ibid.)

However, both *be let to-Inf* and *be let Inf* are detected in EEBO, as in (133) and (134).

(133) a. he commaunded the tvvo dogges there tied in one line to ***be let lose*** and slipped, (EEBO. 1575)
b. he then desiered to ***be let go*** in peace, to dye: (EEBO. 1557)

c. and therefore they must ***be let grow*** strong about the foot before you doe any thing vnto them: (EEBO. 1616)

d. principally when he shou'd ***be let know*** whence they proceeded, (EEBO. 1686)

(134) a. and like grapes that ***are let to hang*** in the sunshine till they be ripe, (EEBO. 1637)

b. there the people ***are let to understand*** how they should be oppressed under kings, (EEBO. 1642)

c. the sinner ***is let to go*** free without punishment in this world, (EEBO. 1664)

d. we ***are let to know*** that the queen-mother was for removing the usurper by poison, (EEBO. 1678)

In EEBO, 588 cases of *be let Inf* are detected, while 131 cases of *be let to-Inf* are detected, as in Table 17. Rather, the results showed that *be let Inf* was predominant in Modern English. The verb *go* is frequently used for the bare infinitival comeplement of *be let Inf* in EEBO, and 402 examples of *be let go* were detected. On the other hand, the use of *understand* (15 cases), *know* (12 cases), and *go* (8 cases) were frequently observed in the *to*-infinitival complements of *be let to-Inf*. Therefore, most of *be let Inf* may be examples of *be let go (of)*, i.e., they may not have the causative meaning.

Table 17. Distribution of *be let (to-)Inf* in EEBO

	15c	16c	17c	TOTAL
be let Inf	3 (100%)	148 (82.7%)	437 (81.4%)	588 (81.8%)
be let *to*-Inf	0 (0%)	31 (17.3%)	100 (18.6%)	131 (18.2%)

2.5. Conclusion

In Present-Day English, the causative verbs *make*, *have* and *let* take not the *to*-infinitive but the bare infinitives in their complements for the active forms, as shown in (135) and (136).

(135) a. I ***made*** John ***wash*** the dishes. (Blanco 2011: 147)
b. The doctor ***had*** his patient ***breathe*** deeply. (Baron 1977: 53)
c. We ***let*** John ***draw*** the circle. (Felser 1999: 17)

(136) a. *I ***made*** John ***to wash*** the dishes. (Blanco 2011: 147)
b. *The doctor ***had*** his patient ***to breathe*** deeply. (Baron 1977: 53)
c. *The judge ***let*** Spiro ***to go***. (Noonan 2007[2]: 56)

The choice of infinitive corresponds to the meanings of the causative verbs. In the case of the causative verb *make*, due to its meaning of the compulsory causation, the bare infinitive indicating the perfectivity is used in the complement. Regarding the causative verb *have*, which indicates the request, the request itself is the action which is caused in the satisfactory way for the causer. Therefore, the causative verb *have* takes not the *to*-infinitive but the bare infinitive, which indicates the perfectivity and simultaneity. In the infinitival selection in the complement for the active form of the causative verb *let,* because it denotes that the caused event is automatically realized by permitting or leaving alone, the causative verb *let* takes the bare infinitive which indicates the perfectivity and simultaneity in its complement, depending on its meaning.

However, examples of the causative verbs *make* and *let* taking the *to*-infinitive as their complements diachronically existed, as in (137).

(137) a. þe veond hit ***makede*** me ***to don***. (Ancr. 136; Mustanoja 1960: 533)
b. þis John of Ely ***lateþ*** this office to ferme ***to wymme***
(Plea III, p. 129, 243, A.; Kaartinen and Mustanoja 1958: 183)

The existence of these examples is due to the fact that the causative verbs *make* and *let* denote not only the same causative meanings as seen in Present-Day English, but also various causative actions, and various non-finite verbs were used in their complements, according to these meanings. These verbs established their meanings (e.g., the coercive causation and permission) in Modern English and then they began to take only the bare infinitive in their complements, depending on the causative meanings.

On the other hand, the *to*-infinitive is used in the complement for the passive form of the causative verb *make*, whereas the bare infinitive is used in the complement for the passive form of the causative verb *let*, as in (138) and (139).

(138) a. Peter ***was made to go***. (Gisborne 2010: 111)
b. *Peter ***was made go***. (ibid.)

(139) a. *The dog ***was let to cross*** the road. (Gisborne 2010: 200)
b. He ***was let die*** in a ditch and was buried by the parish.
(Kuno and Takami 2014: 132)

This choice of infinitive in the complement for the passive form of the causative verbs also has the connection with the meanings of the causative verbs. In the passive form of the causative verb *make*, which indicates the compulsory causation, the *to*-infinitive is used to denote the process of the caused action, such as the annoyance or resistance of the causee. On the other hand, in the passive form of the causative verb *let*, the causative verb *let* indicates the non-interference and does not lose its simultaneity even in the passive form, so the bare infinitive is used in its complement.

As for the fact that *be made to-Inf* denotes the process of the caused action, Zandvoort's (1972[7]: 19) analysis and the comparison and contrast of English translations of the Bibles in various periods, as shown from (119) to (123), have revealed the diachronic connection with *be made to-Inf* and *{make / cause} NP to-Inf*. *Be made Inf*, which is generally regarded as ungrammatical, was used only in special environments such as Irish English and idioms, and there were a few such examples diachronically. The reason why the use of *be made Inf* is less common in Present-Day English is that the causative verb *make* has been used as the marker for the compulsory causation since Modern English, and in its passive form the *to*-infinitive is used to denote the annoyance or resistance to the caused action, reflecting the meaning of the compulsory causation.

Notes

[1] Mitchell (2009: 69) states that bare infinitival complements of causative verbs represent deontic modality, although Gisborne and Holmes (2007: 25) consider the bare infinitival complement of the causative verb *make* to be non-modal. Givón (1993: 273) also points out systematic shading of manipulative modality, as Table i.

Table i. Systematic Shading of Manipulative Modality (cf. Givón 1993: 273)

The Complementation Scale	Modality
She ***let go*** of the knife She ***made*** him ***shave*** She ***let*** him ***go*** home She ***had*** him ***arrested*** She ***caused*** him ***to switch*** jobs	STRONG MANIPULATION (REALIS)
She ***told*** him ***to leave*** She ***asked*** him ***to leave*** She ***allowed*** him ***to leave***	WEAK MANIPULATION

The following linguistic facts may be contributing factors to *cause NP to-Inf*'s presence in the strong manipulation category, unlike other verbs that take the *to*-infinitive as the complements. As shown in (i), *cause NP to-Inf* cannot be followed by the negative expression while other verbs that take the *to*-infinitives as the complements can, as in (ii) (cf. Wolff (2003: 43)).

(i) a. ?The blast ***caused*** the boat ***to heel***, <u>but the boat didn't heel</u>.
(Wolff et al. 2002: 286)

b. *Mary's arrival ***caused*** John ***to cancel*** his appointment, <u>but he forget to</u>.
(Kuno and Takami 2014: 108)

(ii) a. I ***persuaded*** him ***to leave*** the building, <u>but he later changed his mind and stayed</u>. (Talmy 1976: 105)

b. I ***allowed*** him ***to do*** it, <u>but he didn't do it</u>. (Duffley 1992: 85)

c. She ***asked*** him ***to shave*** <u>but he refused</u>. (Givón 2001: 45)

d. The sergeant ***ordered*** the recruits ***to hop*** on the spot, <u>but they didn't do it</u>.
(Hollmann 2006: 203)

[2] On the other hand, Wolff (2003: 43) considers the following example to be grammatical.

(i) Mary ***let*** Bob ***leave***, but he didn't leave. (Wolff 2003: 43)

[3] However, some grammarians do accept the perfect infinitive in the bare infinitival complement as follows. In the case of (ia), the matrix verb is used in subjunctive. In (ib), a subject who can control the events in the virtual world, *the writer*, is used. Therefore, it is assumed that by pragmatically arranging the speech environment, such as instructions in the virtual world, the perfective infinitive is acceptable even in the complements of causative verbs, as demonstrated in 2.1.3. However, according to some informers, (ia) seems to be odd.

(i) a. If I could rewrite Russian history, I would ***let*** the revolution ***have*** already ***taken*** place by the time Lenin was born. (Williams 1984: 140)
b. The writer ***had*** the protagonist ***have been married*** three times. (Bjorkman and Cowper 2013: 5)

Only one example similar to (ia) was detected in the corpus survey, as shown in (ii).

(ii) I'd be very grateful if you could ***let*** me ***have written*** confirmation of exactly what is involved and how often the various procedures are to be carried out on the playing field and the area around the War Memorial in Scorton. (BNC. W_letters_prof)

[4] Regarding co-occurrence with adverbial phrases indicating the past, there are differences in acceptability among previous studies, as in (i).

(i) a. *John ***made*** Bill ***be standing*** on the platform when the train came in. (Inoue 1992: 135)
b. I ***made*** John and Mary ***be talking*** when Fred entered. (Dixon 2005[2]: 199)

[5] According to Nakau and Nishimura (1998: 147), the causative verb *make* indicates resultative and this is because a creative verb *make* has a semantic structure which covers the entire range from the action of the agent to the result of the change (cf. Kageyama (2001: 202)). On the other hand, according to Hornby (1975[2]: 108), the verb *get* indicates

an inchoative. Furthermore, events in the *to*-infinitival complements of *order*, *allow*, *permit*, *cause*, and *enable* are limited to those indicating processes (cf. Nakau (1994: 413)).

[6] However, in some cases, the verbs *get*, *force* and *cause* cannot be followed by the expression that denies the perfectivity of the event in question, as shown in (i) (cf. Wolff (2003: 43)). This may be because these verbs are partially semantically similar to the causative verb *make*.

(i) a. *John ***got*** Bill ***to do*** the dishes, but Bill didn't do the dishes. (Inoue 1985: 24)
b. *The police ***got*** him ***to confess*** to the crime, but he didn't confess.
(Hollmann 2003: 12)
c. *The thief ***forced*** her ***to hand*** over the money, but she didn't do it.
(Hamawand 2005: 203)
d. ?The blast ***caused*** the boat ***to heel***, but the boat didn't heel.
(Wolff et al. 2002: 286)
e. *Mary's arrival ***caused*** John ***to cancel*** his appointment, but he forget to.
(Kuno and Takami 2014: 108)

[7] In addition, Radford (2004: 123; 2009: 96) discuss that there is an empty *to* in (ia) that does not have a phonetic feature as shown in (ib), because affixation is not allowed in the bare infinitival complement of the causative verb *let*, as in (ic). However, there is no justification of why the *to*-infinitive in (ib) is removed.

(i) a. I can't ***let*** [you ***have*** my password]. (Radford 2004: 123)
b. I can't ***let*** [$_{TP}$ you [$_{T}$ ~~***to***~~] ***have*** my password]. (ibid.)
c. *I can't ***let*** [you***'ve*** my password]. (ibid.)

According to Sugimoto (2022), the affixation of the bare infinitival complement cannot occur in the complement of causative verb *have*, as shown in (ii).

(ii) *John ***had*** [you***'ve*** a party]. (Sugimoto 2022: 269)

[8] The following examples, taken from the English Bibles, illustrates the process of replacing the causative verb *do* with the causative verb *make*, although the causative verb *do*, which takes the *þæt* clause, is used in the West Saxon Gospels.

(i) a. Đa cwæð se Hælend, ***Doð þæt þas men sitton***. On þære stowe wæs mycel gærs; ðær sæton þa swylce fif þusendo manna.
(West Saxon Gospels. John 6: 10)

b. Therfore Jhesu seith, ***Make*** ȝe hem ***for to sitte*** at the mete. Forsoth there was myche hey in the place. Therfore men saten at the mete, in noumbre as fyue thousandis. (Wycliffe Bible Early Version. John 6: 10)

c. Therfor Jhesus seith, ***Make*** ye hem ***sitte*** to the mete. And there was myche hey in the place. And so men saten to the mete, as `fyue thousynde in noumbre. (Wycliffe Bible Late Version. John 6: 10)

d. And Jesus said, ***Make*** the people ***sit*** down. (Now there was much grass in that place.) Then the men sat down, in number about five thousand.
(Geneva Bible. John 6: 10)

e. And Jesus said, ***Make*** the men ***sit*** down. Now there was much grass in the place. So the men sat down, in number about five thousand.
(Authorized Version. John 6: 10)

f. Jesus said, ***Make*** the people ***sit*** down. Now there was much grass in the place. So the men sat down, in number about five thousand.
(Revised Version. John 6: 10)

g. Jesus said, "***Make*** the people ***sit*** down." Now there was much grass in the place; so the men sat down, in number about five thousand.
(Revised Standard Version. John 6: 10)

h. Jesus said, "***Make*** the people ***sit*** down." Now there was a great deal of grass in the place; so they sat down, about five thousand in all.
(New Revised Standard Version. John 6: 10)

In a different analysis, Nakao and Koma (1990: 103) provide the following examples; they show the process of development of *make NP Inf* and point out that *make NP to-Inf* changed into *make NP Inf*.

(ii) a. That ***made*** me ***that*** evere I wolde hem chide.
(=That was why I would be ever chiding them)
(Ch CT D 419; Nakao and Koma 1990: 103)

b. It ***maketh*** al my drede ***for to dyen***.
(= It makes my dread die away) (Ch CT B^2 4352; ibid.)

(iii) Old English → Middle English → Present-Day English

make *that*-clause → make NP *that*-clause

make NP *to*-Inf → make NP *φ*-Inf

(cf. Nakao and Koma 1990: 103)

According to Yamakawa (1975: 15), in Middle English, there are transitional examples of the *to*-infinitival complement of the causative verb *make* accompanied by the *that*-clause, as shown in (iv).

(iv) Allas the shorte throte, the tender mouth,
Maketh <u>that</u> est and west and north and south
In earthe, in eir, in water, men ***to swynke***
To gete a glotoun deyntee mete and drynke!
(=Alas! the short throat and tellder mouth makes men try and seek everywhere in all directions, to get choice food and drink for a glutton.)
(C. T., C, Pard. T., 517-20; Yamakawa 1975: 15)

Similar structures have been identified in addition to the causative verb, as shown below.

(v) a. they declared the same to the kyng, who strayt wayes ***commaunded <u>that</u>*** M' marces ***to be delyuerd*** owt of hand to m'Cromewell and so it was.
(George Cavendish, *Life and Death of Cardinal Wolsey*, 131; Munemasa 2020: 49)

b. he never had ***knowleched <u>that</u>*** the tale ***to be*** trewe.
(*Paston Letters*, I, 177, 235; Munemasa 2020: 50)

[9] According to Ziegeler (2006: 134-135), in Old English and Middle English, a main verb *do* 'put' or 'send' existed in monoclausal structures lexifying caused-motion construction meanings and usually marked with the *ge-* prefix, also conveyed the meanings of the verb *make* in monoclausal structures lexifying resultative construction meanings. Resultative uses yielded to periphrastic uses, via the replacement of the adjectival complement by an infinitive, and the later coalescence of *do* and the infinitive in constructions in which the infinitive could be understood as passive and the medial NP occupied a patient role. Caused-motion uses developed into biclausal causatives via the replacement of their directional complements first with *to*-infinitival clauses in which the medial NP was an

experiencer role, and later with the loss of the infinitive marker, bare infinitive clauses with agents as medial NPs emerged.

[10] While Williams (1983; 1984) reject this possibility, Stowell (1983) and Contreras (1987) also point out the possibility that the noun phrases and the bare infinitives constitute a small clause. This morphological agreement can be found in the complement of perception verbs in Old English, which will be discussed in greater depth later, although Bock (1931: 121) and Fischer (2007: 164) suggest that the bare infinitive in Old English already suggested a closer link between the matrix verb and the infinitive. However, a further problem with the analysis in (62) is the possibility that the bare infinitive can morphologically agree not only with the logical subject but also with the object (with the accusative case) of the bare infinitive.

[11] The fact that the auxiliary verbs in Present-Day English are different from the main verbs can be seen in the following examples.

(i) a. *For it to ***will*** start raining soon is something to worry about. (McCawley 1988: 119)
b. *For you to ***must*** shine your boss's shoes is outrageous. (ibid.)
c. *Smith's ***maying*** refuse our offer worries me. (ibid.)
d. *Students ***canning*** sue their professors is a recent development. (ibid.)

(ii) a. *Ethelbert may ***can*** retire. (Anderson 1990: 346)
b. *Ethelbert has {can / ***could***} retire. (ibid.)
c. *Ethelbert is ***canning*** retire. (ibid.)
d. *To ***can*** retire would be nice. (ibid.)
e. ****Canning*** retire is nice. (ibid.)

(iii) a. John ***must*** {be going to / ****will***} win this time. (Burzio 1981: 241)
b. John is likely {to be going to / ****(to) can***} win. (ibid.)
c. John is going {to be likely to / ****(to) can***} win. (ibid.)
d. Mary promised John {to be going to / * ***(to) would***} study harder. (ibid.)
e. *John is ***(to) can*** leave. (Burzio 1981: 242)
f. *Mary persuaded John ***(to) should*** study harder. (ibid.)

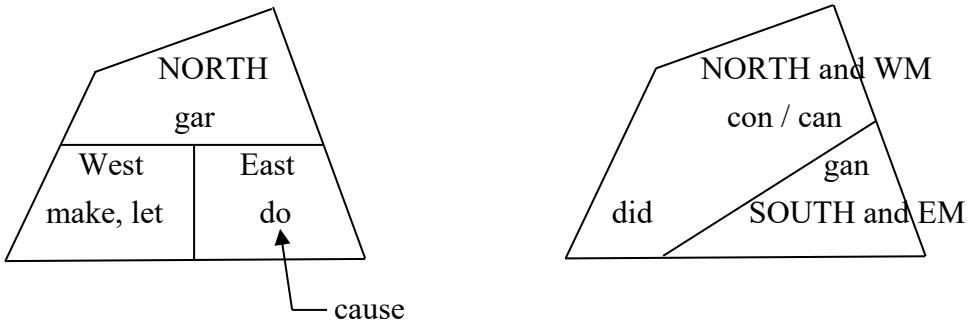
[12] In Present-Day English, due to the loss of the inflections, the objects and complements agree only in number.

(i) a. I consider [John and Mary {good students / *good student}]. (Oba 1998: 272)

b. We consider [John {a fool / *fools}]. (Felser 1998: 359)

[13] Regarding the emergence of the periphrastic *do* and the process of the decline of the causative verb *do*, Ogura (2015: 49; 2018: 59) note that *ger*, which developed from gøra in Old Norse, was used as a causative auxiliary verb in the north of England, *make* and *let* in the west, and *do* in the east. On the other hand, *con* / *gan* + infinitive (e.g., *gann ride* = *rode*) was used as a periphrastic past in the north and developed as a device to make the infinitive rhyme, especially in line of a poem. *Gan*, which was the past singular form of *ginnan* (the alternative form of *onginnan* / *beginnnan*) in Old English, was used in the South and East Midlands, and the *con* / *can* form became confused with the auxiliary verb *can* / *could* due to its phonological variant and at the same time the meaning of the auxiliary verb *do* weakened, so *did* moved to the area of *con* / *can*, and the causative verb *do* was replaced with the causative verb *make* and *cause* completely between the 14th and 15th centuries, as shown in Figure i.

Figure i. Decline of the Causative Verb *do* and Expansion of the Periphrastic *do*



Causative auxiliaries Preterite auxiliaries

(cf. Ogura 2015: 49; 2018: 59)

[14] According to Ikegami (1978: 580), in Early Middle English, the causative verb *do* tended to be used when an infinitive or adverbial phrase expressing a place was used in the complement, while the causative verb *make* tended to be used when a noun or an adjective was used in the complement.

[15] Furthermore, Yamakawa (1975) states that the following *macian* NP_{Acc} *to* NP_{Dat} symbolizes a transitional stage in the development of *make NP (to-)Inf*, as shown in (i).

(i) a. unfæderlice ***macode heora flæsc him to mete***.
'In an unfatherly manner he made their flesh food for himself.'
(Ælfric. Hom: Suþ. Col. XXI 106-7; Yamakawa 1975: 26)
b. Þone ***macodon þa hæþenan him to mæran gode***.
'The heathens made him a greater god for themselves.' (ibid. XXI. 136; ibid.)

Although there is no way to test this hypothesis, a dative construction is semantically similar to the construction of *accusative with infinitive*. According to Green (1974: 157), (iia) does not mean the same as (iib) and implies or entails that John learned linguistics, while (iib) merely indicates that John was a student of linguistics and is neutral as to whether his teacher Mary had any success in her efforts. Goldberg (1995: 33) also states that (iic) implies that Bill actually learned some French, while no such implication is necessary in (iid).

(ii) a. Mary ***taught John linguistics***. (Green 1974: 157)
b. Mary ***taught linguistics to John***. (ibid.)
c. Mary ***taught Bill French***. (Goldberg 1995: 33)
d. Mary ***taught French to Bill***. (ibid.)

The evidence for the absence of such an implication in the dative construction is that, as opposed to the double object construction, it is possible to deny the implication in the dative construction, as in (iii).

(iii) a. John ***taught linguistics to Mary*** <u>but she didn't learn anything</u>.
(Ueyama 2016: 99)
b. *John ***taught Mary linguistics*** <u>but she didn't learn anything</u>. (ibid.)
c. *Bill ***told Mary a story***, <u>but she wasn't listening</u>. (Goldberg 1995: 146)

This contrast is similar to the connotation of the (non-)perfectivity in the infinitives.

(iv) a. I ***allowed*** him ***to do*** it, <u>but he didn't do it</u>. (Duffley 1992: 85)
b. She ***asked*** him ***to shave*** <u>but he refused</u>. (Givón 2001: 45)

(v) a. *She ***made*** him ***shave*** but he refused. (Givón 2001: 45)
b. *?I ***let*** him ***do*** it, but he didn't do it. (Duffley 1992: 85)

However, since further discussion is needed on whether this semantic difference has existed diachronically, this paper will limit its analysis to this level.

[16] According to Poutsma (1923: 44), *make NP to-Inf* was more likely to be used under the following conditions.

(i) a. when the accusative is a lengthy sequence of words
b. when the accusative is represented by a relative pronoun or otherwise leaves its ordinary place and stands after the infinitive
c. when the infinitive is preceded and modified by so

As for the condition of (ia), Rohdenburg (1996: 157-159) states that when the causative verb *make* is accompanied by the *to*-infinitive, the object (the logical subject) is often a noun rather than a pronoun, and the noun tends to be particularly long. Iyeiri (2007b: 21-22) also states that in Reynard, when the object is a personal pronoun, there are 11 cases of the *to*-infinitives and five cases of the bare infinitives and the percentage of the *to*-infinitives is 68.8%, and that when a noun is placed in the object position, the proportion of the *to*-infinitives is even higher: there are seven cases of the *to*-infinitives and two cases of the bare infinitives, which means that the proportion of the *to*-infinitives is 77.8%.

[17] Regarding the reason that historically the infinitival selection in the causative verb *make* vacillated for a long time between the *to*-infinitive and the bare infinitive and ultimately, the bare infinitive won out, Mittwoch (1990: 125) speculates that the reason is purely syntactic, being connected with the fact that the causative verb *make* (unlike *cause*) can take the small clause, as in "You ***make*** me ***angry***." This statement, however, does not explain anything about other causative verbs such as "They ***got*** him ***angry***" and "They ***got*** him ***to go*** to the party."

[18] The name of the corpus used and the details of the period classification are given below.

(i) a. Penn-Helsinki Parsed Corpus of Middle English, Second Edition (PPCME2) : 1150-1500
b. Penn-Helsinki Parsed Corpus of Early Modern English (PPCEME) : 1500-1710
c. Penn Parsed Corpus of Modern British English (PPCMBE): 1700-1914

[19] In the OED, the polysemy of the causative verb *make* is also noted. The first example of (ia) cited by OED is in 1200 and that of (ib) is in 1395.

(i) Polysemy of the causative verb *make* in the OED
a. the neutral sense: "To cause (a person or thing) to do something" (cf. OED. *make*, *v*.1. 39)
b. the 'force' meaning: "To constrain (a person, etc.) to do something, by an exercise of influence, authority, or actual or threatened violence; to compel, force" (cf. OED. *make*, *v*.1. 40)

Stocker (1990: 236) has created his own corpus and has divided causative constructions with *make* into two groups – a group of 'verbs of causing' and 'verbs of forcing.'

[20] The Bibles used in this investigation and their dates are listed below.

(i) a. Wycliffe Bible Early Version: EV (1382)
b. Wycliffe Bible Late Version: LV (1395)
c. Geneva Bible: GB (1599)
d. Authorized Version: AV (1611)
e. Revised Version: RV (1894)
f. Revised Standard Version: RSV (1946)
g. New Revised Standard Version: NRSV (1989)

[21] It is known that the Wycliffe Bible Early Version is a verbatim translation of the Vulgate, which is the Bible translated to Latin (cf. Butterworth (1941: Chapter 4), Nagashima (1988: 45), Terasawa et al. (1969: 12), Gilmore (2000: 186) and Hira (2016: 162-163)), but a comparison of the EV's *make NP (to-)Inf* with the corresponding passage in the Vulgate shows that "facio + NP + present infinitive" is used in the Vulgate as shown

in (i) and (ii). This fact suggests the influence of translation at the syntactic level in that the construction of the *accusative with infinitive* is used in both the Wycliffe Bible Early Version and the Vulgata, but the choice of the infinitives was not affected by the translation, given that the bare infinitive and the *to*-infinitive in the Wycliffe Bible Early Version correspond to the present infinitive in Latin.

(i) a. Deus autem omnipotens benedicat tibi, et ***crescere*** te ***faciat***, atque multiplicet,
(Present active infinitive of crēscō) (Vulgata. Genesis 28: 3)
b. God forsoþe Almyʒti blisse to þee, and ***make*** þee ***growe***, and multiplie,
(Wycliffe Bible Early Version. Genesis 28: 3)

(ii) a. ***Fecitque*** eum ***ascendere*** super currum suum secundum,
(Present active infinitive of ascendō) (Vulgata. Genesis 41: 43)
b. and ***made*** him ***to steyʒ*** vpon his second chaar, criynge a bidele,
(Wycliffe Bible Early Version. Genesis 41: 43)

Furthermore, although the original source for the translation of the Authorized Version is said to be the Greek Bible, Morita (2007: 129-130) states that both the bare infinitive and the *to*-infinitive, as shown in (iii) and (iv), are interpreted in Greek as the aorist second form infinitive γενέσθαι or ἀναπεσεῖν, and that the Greek influence on the translation of the Authorized Version is not apparent in the choice of the infinitives.

(iii) a. and I will ***make*** you ***to become*** fishers of men.
(Authorized Version. Mark 1: 17)
b. καὶ ποιήσω ὑμᾶς γενέσθαι ἁλιεῖς ἀνθρώπων. (Greek. Mark 1: 17)

(iv) a. ***Make*** the men ***sit*** down. (Authorized Version. John 6: 10)
b. Ποιήσατε τοὺς ἀνθρώπους ἀναπεσεῖν. (Greek. John 6: 10)

[22] According to the OED, the verb *cause* also took the bare infinitival complement, as in (i), but its usage was quite rare.

(i) a. How durst thou..to be so bold To ***cawse*** hym ***dy***?
(c1485 *Digby Myst*. (1882) iv. 543; OED. *cause*, *v*.1. 1b)
b. Take heed, you doe not ***cause*** the blessing ***leaue*** you.

(1612 B. Jonson *Alchemist* ii. iii. sig. D3v; ibid.)

[23] According to Los (2015: 126), the causative verb *let* in Old English was used in the sense of "see to it" rather than "cause."

[24] As a further reason for the increase in *make NP Inf*, Los (2015: 126) states that the causative verb *make* with the bare infinitival complement was developed by analogy with the causative verb *let* which also has taken the bare infinitival complement.

[25] As for the reason why the causative verb *make* came to take only the bare infinitive as its complement, Iyeiri (2007b) points out the possibility that the causative verb *make* has become grammaticalized. Blanco (2011: 145) also suggests that the causative verb *make* in the active form is a functional item, while the one in the passive form is a lexical item, but there is still room for a considerable measure of disagreement about this approach from the perspective of language acquisition. Furthermore, if the grammaticalization of causative verbs led them to take the bare infinitive as their complements, what kind of functional words did they turn into? Even if we were to assume that causative verbs transformed into auxiliary verbs, the following could serve as counterexamples.

(i) a. ***Had*** the doctor an eye specialist ***examine*** the patient? (Radford 2009: 93)
b. ***Made*** the doctor an eye specialist ***examine*** the patient? (Censored.)
c. ***Let*** the doctor an eye specialist ***examine*** the patient? (Censored.)

According to Radford (2004: 119; 2009: 93), as shown below, the auxiliary verb *have* can be affixed, while the causative verb *have* cannot.

(ii) a. They've seen a ghost (= perfect have) (Radford 2009: 93)
b. *They ***'ve*** their car ***serviced*** regularly (= causative have) (ibid.)

[26] In Present-Day English, *make NP to-Inf* is limited to a proverbial usage, as in (i). According to Konishi (1996: 47), the presence of the *to*-infinitive in "Money ***makes*** the mare ***to go***" is used to maintain the rhythm of strength and weakness, and it remains fossilized through alliteration.

(i) Money ***makes*** the mare (***to***) ***go***. (Egawa 1991[3]: 336)

However, there are also variants of this proverbial usage, as seen in (ii). In this sentence, the bare infinitive is used for a logical subject that can be controlled in some way, such as a person, while the *to*-infinitive is used for a logical subject that requires relatively more effort to control than a person, such as an animal.

(ii) [Money] ***Makes*** the old Wife ***trot***, and ***makes*** the Mare ***to go***.
(1698 *Money masters All Things* 3; OED. *mare*, *n*.1. 2c)

In the following examples, the bare infinitive and the *to*-infinitive are equivocally connected by the coordinate conjunction *and*, and it seems that in (iiia) while the bare infinitive indicates an instantaneous reaction, the *to*-infinitive denotes a delayed action.

(iii) a. What he saw there ***made*** him ***falter*** and ***repeat*** himself and then suddenly ***to explode*** into a cry. (1961. Rich. Hughes, The Fox in the Attic (Penguin) 22; Visser 1973: 2262)
b. Gooþ and seieþ to John þat I ***make*** blinde men ***see***, and crokede men ***to goo***.
go and say to John that I make blind men see and crooked men to go
(?c1425 (?c1400) Loll.Serm. 3.99; Denison 1993: 214)

Assuming that the choice of infinitive is influenced by linguistic environmental factors such as the logical subject and context, it seems that there is the semantic connection between *make NP to-Inf* and *cause NP to-Inf*.

[27] The causative verb *have* with the *to*-infinitive is also found diachronically, as in (ia-b) and (iia-b), but it is interpreted as *want NP to-Inf*, as shown in (id-e) and (iic-d). Poutsma (1923: 42) and Jespersen (1940: 287) point out that the *to*-infinitival complement of the causative verb *have* is often used in conditional contexts with *will* and *would*.

(i) a. Nowe his citizens hated him, and sent an ambassage after him, saying, We will not ***haue*** this man ***to reigne*** ouer vs. (Geneva Bible. Luke 19: 14)
b. But his citizens hated him, and sent a message after him, saying, We will not ***have*** this man ***to reign*** over us. (Authorized Version. Luke 19: 14)
c. But his citizens hated him, and sent an ambassage after him, saying, We will not that this man reign over us. (Revised Version. Luke 19: 14)
d. But his citizens hated him and sent an embassy after him, saying, 'We do not ***want*** this man ***to reign*** over us.' (Revised Standard Version. Luke 19: 14)

e. But the citizens of his country hated him and sent a delegation after him, saying, 'We do not ***want*** *this man* ***to rule*** over us.'

(New Revised Standard Version. Luke 19: 14)

(ii) a. But I would ***have*** you ***know***, that the head of every man is Christ; and the head of the woman is the man; and the head of Christ is God.

(Authorized Version. 1 Corinthians 11: 3)

b. But I would ***have*** you ***know***, that the head of every man is Christ; and the head of the woman is the man; and the head of Christ is God.

(Revised Version. 1 Corinthians 11: 3)

c. But I ***want*** you ***to understand*** that the head of every man is Christ, the head of a woman is her husband, and the head of Christ is God.

(Revised Standard Version. 1 Corinthians 11: 3)

d. But I ***want*** you ***to understand*** that Christ is the head of every man, and the husband is the head of his wife, and God is the head of Christ.

(New Revised Standard Version. 1 Corinthians 11: 3)

According to Yamakawa (1965: 348), the causative verb *have* has been used with the *to*-infinitival complement since the 14th century, and the *to*-infinitival complement induced the inchoative aspect. In Early Modern English, the *to*-infinitival complement of the causative verb *have* was used in some cases due to prosody, but according to Shakespeare-Lexicon (*s.v. have.* 2), the distribution of infinitives in the complements of the causative verb *have* in all of Shakespeare's works is 31 cases of the bare infinitives and seven cases of the *to*-infinitives. According to Söderlind (1951: 353-354), who conducted a survey of Dryden's prose in the late 17th century, when standard colloquial forms were established, there were 50 cases of the bare infinitives and 10 cases of the *to*-infinitives in the complement of the causative verb *have.* Furthermore, Fries (1940: 131) states that *have NP to-Inf* is likely to be found in vulgar English.

[28] Regarding the infinitival selection in the complements for the active and passive form of the causative verb *make*, Blanco (2011: 145) points out the possibility that the passive forms of the causative verb *make* are always realized by a lexical item, whereas the active forms are always realized by a functional item. However, Blanco (2011) does not mention why the active form of the causative verb *make* is a functional element and the passive form of the causative verb *make* is a lexical element.

[29] In the passive form of the causative verb *get* which also implies the resistance of the causee to the causative action, the *to*-infinitive (not the bare infinitive) is also used to indicate the resistance of the causee, as in the case of the causative verb *make*, as in (i).

(i) a. They ***were got to be*** careful. (Haegeman 1985: 76)
b. *They ***were got be*** careful. (Censored.)

However, the acceptability of (ia) varies among previous studies, as shown in (ii). According to Hollmann (2006: 194), informal inquiries among American English speakers suggest increased acceptability in (iic) if *got* is replaced with *gotten*.

(ii) a. *The movie star ***was gotten to give*** a public lecture. (Goldsmith 1984: 127)
b. *They ***were got to cut*** down the tree. (Suzuki 1990: 252)
c. ??Recruits ***were got to hop*** on the spot. (Hollmann 2006: 194)
d. They ***were got to accept***. (Halliday 2004[3]: 513)

[30] There was only one case where *make NP Inf* is changed to *be made to-Inf*, in (i). Additionally, only one example of a change from *be made Inf* to *be made to-Inf* can be detected, shown in (ii). However, it is possible that the semantic change of the causative verb *make* was not completed in Early Modern English.

(i) a. All, said he, by writing sent to me by the hand of the Lord, which ***made*** me ***vnderstand*** all the workemanship of the paterne.
(Geneva Bible. 1 Chronicles 28: 19)
b. All this, said David, the Lord ***made*** me ***understand*** in writing by his hand upon me, even all the works of this pattern.
(Authorized Version. 1 Chronicles 28: 19)
c. All this, said David, have I ***been made to understand*** in writing from the hand of the LORD, even all the works of this pattern.
(Revised Version. 1 Chronicles 28: 19)
d. “All this, in writing at the Lord’s direction, he made clear to me—the plan of all the works. (New Revised Standard Version. 1 Chronicles 28: 19)

(ii) a. The first was like a lion, and had eagle’s wings: I beheld till the wings thereof were plucked, and it ***was*** lifted up from the earth, and ***made stand*** upon the feet as a man, and a man’s heart was given to it.

(Authorized Version. Daniel 7: 4)

b. The first was like a lion, and had eagle's wings: I beheld till the wings thereof were plucked, and it ***was*** lifted up from the earth, and ***made to stand*** upon two feet as a man, and a man's heart was given to it.

(Revised Version. Daniel 7: 4)

c. The first was like a lion and had eagles' wings. Then as I looked its wings were plucked off, and it ***was*** lifted up from the ground and ***made to stand*** upon two feet like a man; and the mind of a man was given to it.

(Revised Standard Version. Daniel 7: 4)

d. The first was like a lion and had eagles' wings. Then, as I watched, its wings were plucked off, and it ***was*** lifted up from the ground and ***made to stand*** on two feet like a human being; and a human mind was given to it.

(New Revised Standard Version. Daniel 7: 4)

[31] Green (1868) also states that the existence of *be made Inf* is confirmed in the late 19th century, as shown below, although it was not an appropriate expression then.

(i) He ***was made feel*** their displeasure. (improper) (Green 1868: 179)

[32] Visser (1973: 2410) and Denison (1993: 215) offer the following example of "*be made appear*" as an example of *be made Inf*.

(i) a. He says also, that this day [it] hath ***been made appear*** to them that…

(1667 Pepys, *Diary* VIII 562.9 (3 Dec); Denison 1993: 215)

b. when their crimes ***were made appear***.

(1663 Butler, Hudib., The Lady's Answ. 165; Visser 1973: 2410)

In this survey, the pronouns with no feature of animacy, such as *it* and *they*, were excluded in order to rule out the cases in which *be made to-Inf* indicates the meaning of "something is made in order to do" but a significant number of "*be made appear*"s were detected in the survey of EEBO and a few examples can be found in BNC and COHA, as below.

(ii) a. if adam had stood in innocency, and had had the like innocent and unstained posterity; it can not ***be made appear*** that any of them should have been slaves by nature; slavery is an effect and consequent of sin, and adams posterity could not have so unrectified wills as to desire to stoop to a slavish condition,

(EEBO. 1650)

b. as when in a court of justice a prisoner ***is made appear*** as often as he is demanded: (EEBO. 1687)

(iii) a. The details of how the connections ***are made appear*** in 'Curriculum to serve society, (BNC. W_non_ac_polit_law_edu)

b. if it shall ***be made appear*** to the court where the said action is depending, (BNC. W_ac_polit_law_edu)

(iv) a. It ***was made appear*** also that they had met several times before, (COHA. 1859. NF/ACAD)

b. it might easily ***be made appear***, (COHA. 1884. NF/ACAD)

3. Infinitival Selection in the Complements of Perception Verbs

3.1. Synchronic Analysis on Infinitival Selection in the Complements for the Active Forms of Perception Verbs

3.1.1. Perfectivity

As illustrated in 1.2.2, the perception verbs such as *see*, *hear* and *watch* take the bare infinitive in the complements for their active forms, shown in (1). Previous studies such as Allen (1974[5]: 186) and Akmajian (1977: 440) state that bare infinitives indicate perfectivity and denote the perceptual events as a whole (cf. Hornby (1975[2]: 64), Quirk et al. (1985: 1206), Alexander (1988: 302), Declerck (1991: 489), Huddleston and Pullum (2002: 1237) and Depraetere and Langford (2020[2]: 73)).

(1) a. I ***saw*** him ***cross*** the road. (From one side to the other.) (Allen 1974[5]: 186)
b. I ***heard*** the child ***cry***. (complete occurrence) (Espunya 1996: 113)
c. We ***watched*** the prisoners ***die***. (completed) (Akmajian 1977: 440)

The evidence that the bare infinitive indicates perfectivity can be demonstrated in (2). The bare infinitive indicates perfectivity, so it cannot be followed by a negative expression which cancels the perfectivity or completeness of the bare infinitive.

(2) a. *I ***saw*** her ***drown***, but I rescued her. (Kirsner and Thompson 1976: 215)
b. Kim ***saw*** Sandy ***leave*** early (and called her and asked her to come back / *and stopped her and asked her to stay a few minutes longer).
(van Valin and LaPolla 1997: 473)
c. #Mary ***heard*** the teacher ***drop*** a book, but he actually slammed a door.
(Moulton 2009: 140)
d. *I ***saw*** John ***enter*** the room, but I didn't know whether he actually got inside.
(Kashino 2010: 408)

Given that the bare infinitive indicates perfectivity, the bare infinitive co-occurs with an adverb *once*, which indicates a single action, as shown in (3a), and due to its perfectivity, it can be used with adverbs which imply perfectivity, as in (3b), while it is incompatible with a durative expression, as in (3c).

(3) a. I ***saw*** John ***jump*** once. (Gee 1977: 480)
b. I ***saw*** her ***write*** a letter completely. (Miller 2002: 256)
c. ?I ***saw*** her ***write*** a letter for twenty minutes. (ibid.)

Gisborne (2010) also tested the aspectual property of the bare infinitival complement in the perception verbs, as in (4). According to him, these examples are telic because they are temporally bound by the perfectivity of the bare infinitive.

(4) a. Peter ***saw*** Jane ***cross*** the road in five seconds flat. (Gisborne 2010: 188)
b. Peter finished ***seeing*** Jane ***cross*** the road. (ibid.)

Further evidence for the perfectivity of the bare infinitive in the complement of the perception verbs is that stative verbs cannot occur in the bare infinitival complement of the perception verbs. According to Kira (2006: 46), the occurrence of the stative verbs in the bare infinitival complement of the perception verbs, as in (5), is not acceptable because the stative events cannot be seen as "completed events" with end-points.[1]

(5) a. *We ***saw*** dinosaurs ***love*** kelp. (Felser 1999: 52)
b. *I ***saw*** John ***own*** a house. (Miller 2002: 245)
c. *We ***saw*** John ***know*** the answer. (ibid.)
d. *Mary ***saw*** John ***resemble*** his father. (Moltmann 2013: 296)

The same is true for a passive expression, as in (6).[2] In the bare infinitival complement, an occurrence of *be + past participle* is not grammatically correct.

(6) a. *I ***saw*** him ***be rejected***. (Bolinger 1974: 69)
b. ?Mary ***saw*** the princess ***be kissed*** by the frog. (Lapointe 1980: 772)
c. We ***saw*** the dog (*__be__) ***run*** over by lorry. (Declerck 1991: 490)
d. *?John ***saw*** Bill ***be examined*** by a doctor. (Clark and Jäger 2000: 19)
e. *We ***saw*** Spurs ***be beaten*** by United. (Huddleston and Pullum 2002: 1237)
f. ??I ***saw*** the patient ***be operated*** on by the doctor. (Miller 2002: 249)
g. ??The policeman ***saw*** the prisoner ***be arrested***. (Basilico 2003: 9)
h. *They ***saw*** Mary (__to__) ***be kicked*** by John. (Dixon 2005[2]: 252)
i. *Jane ***saw*** Peter ***be kissed***. (Gisborne 2010: 209)

On the other hand, the appearance of *get + past participle* in the bare infinitival complement is grammatically correct.

(7) a. I ***saw*** him ***get rejected***. (Bolinger 1974: 69)
b. John ***saw*** Bill ***get examined*** by a doctor. (Clark and Jäger 2000: 19)
c. I ***saw*** the patient ***get operated*** on by the doctor. (Miller 2002: 249)
d. We ***saw*** Spurs ***get annihilated*** by United.
(Huddleston and Pullum 2002: 1237)
e. We ***watched*** the rebels ***get executed*** by the army. (Akmajian 1977: 440)

This difference in grammaticality is that the passive form with *be* represents the stative passive, while the passive form with *get* represents the dynamic passive. According to Murata and Narita (1996) and Huddleston and Pullum (2002), depending on the verb, the passive form with *be* is ambiguous between the dynamic passive and stative passive, as shown in (8).

(8) a. His bills ***are paid*** regularly every month. (Murata and Narita 1996: 133)
b. His bills ***are paid***, so he owes nothing now. (ibid.)
c. I don't know when the door ***was shut***. (ibid.)
d. When we arrived, the door ***was shut***. (ibid.)

Furthermore, Murata and Narita (1996) and Huddleston and Pullum (2002) state that the *be* passive is semantically ambiguous between the dynamic passive and stative passive, as in (9), while the *get* passive is used only in the dynamic passive, eliminating the semantic ambiguity of the *be* passive, as in (10).

(9) a. The chair ***was broken***. (Dynamic Passive / Stative Passive)
(Murata and Narita 1996: 134)
b. The window ***was broken***. [ambiguous: verbal or adjectival]
(Huddleston and Pullum 2002: 1441)

(10) a. The chair ***got broken***. (Dynamic Passive) (Murata and Narita 1996: 134)
b. The window ***got broken***. [unambiguous: verbal only]
(Huddleston and Pullum 2002: 1441)

Thus, like the unacceptability of the stative verbs in the bare infinitival complement shown in (5), it is assumed that the appearance of the *be* + *past participle* in the bare infinitival complement for the perception verbs as in (6) is not grammatically correct due to the stative nature with the *be* + *past participle*.

Regarding the perfectivity of the bare infinitival complement for the perception verbs, Kirsner and Thompson (1976), Gee (1977) and Declerck (1981) show examples indicating the similarity between the bare infinitive and the simple past tense in the perfectivity in (11).

(11) a. *I ***saw*** her ***drown***, but I rescued her. (Kirsner and Thompson 1976: 215)
b. *She ***was drowned*** but I rescued her. (Declerck 1981: 97)
c. I ***saw*** John ***jump*** once. (Gee 1977: 480)
d. John ***jumped*** once (one time). (ibid.)

As for these similarities between the bare infinitive and the simple past tense in the perfectivity, Kurokawa (1986) and Murphy (2004) suggest that the bare infinitival complement in (12a) and (13a) is paraphrasable with the simple past tense in (12b) and (13b) respectively.[3]

(12) a. I ***saw*** Harry ***go*** over to Jane and ***kiss*** her. (Kurokawa 1986: 180)
b. Harry went over to Jane and kissed her. I saw it. (ibid.)

(13) a. I ***saw*** Tom ***get*** into his car and ***drive*** away. (Murphy 2004: 134)
b. Tom got into his car and drove away. + I saw this. (ibid.)

3.1.2. Simultaneity

Furthermore, in addition to this aspectual property of the perfectivity or completeness, the bare infinitival complement indicates the simultaneity with the tense of the matrix verb. As proof of this, some previous studies provide the following examples. Given that the bare infinitive indicates the simultaneity, it cannot be used with adverbs which indicates time gapping, as in (14).[4]

(14) a. *(Yesterday) I ***saw*** the man ***cross*** the road tomorrow. (Nakau 1980: 140)
b. *John ***saw*** Bill ***leave*** tomorrow. (Hornstein 1990: 154)
c. *At 6 o'clock, John ***saw*** Bill ***leave*** at 7 o'clock. (Hornstein 1990: 155)
d. *Yesterday I ***saw*** him ***hide*** the safe tomorrow. (Takahashi 1999: 128)
e. *Today Jim ***saw*** her ***cry*** yesterday evening. (Čakányová 2019: 29)

Due to its simultaneity, the perfect infinitive cannot appear in the bare infinitival complement, as in (15) because it is pragmatically impossible to see or hear the perceptual event retroactively in the past.

(15) a. *I don't like to ***see*** people ***have drunk***. (Nakau 1980: 147)
b. *I ***saw*** a great change ***have come*** over him. (Declerck 1981: 86)
c. *John ***saw*** the lawn ***have been mown***. (Declerck 1983a: 39)
d. *John ***saw*** Bill ***have left***. (Hornstein 1990: 154)
e. *We ***saw*** Mary ***have finished*** her breakfast. (Felser 1999: 32)

Additionally, the occurrence of the *be* + *present participle* in the bare infinitival complement is also ungrammatical, as in (16). This is because the progressive form can indicate the events leading up to the event that the present participle denotes (i.e., the preliminary process or preceding state) (cf. Sato (2014: 101) and Kira (2018: 199-200)). The perceptual action that we humans perform usually requires that the perceptual action and the perceived object exist simultaneously, and we cannot perceive the past state, preliminary process or preceding state retroactively. Therefore, (16) is considered to be ungrammatical.

(16) a. *I ***saw*** John ***be sleeping***. (Declerck 1981: 91)
b. *I don't like to ***see*** people ***be drinking***. (Nakau 1980: 147)
c. *We ***saw*** John ***be drawing*** a circle. (Felser 1998: 363)
d. *We ***saw*** Kim ***be leaving*** the bank. (Huddleston and Pullum 2002: 1237)
e. *Jane ***saw*** Peter ***be kissing***. (Gisborne 2010: 209)

This problem was already dealt with in detail in 1.2.2, and here we look at some further evidence that the progressive form implies the preliminary process or preceding state and further evidence for the inability of the perception verbs to co-occur with expressions indicating the preliminary process or preceding state. First, according to Sato (2014: 103-105), *be going to* also indicates the preliminary process or preceding state, as well as the progressive form. Egawa (1991[3]: 222) states that comparing *will* and *be going to*, there is a semantic difference: the auxiliary verb *will* denotes "a decision at the time of utterance," while the semi-auxiliary verb *be going to* denotes "an intention that has already been decided." For example, in the following conversation between X and Y, the use of *be going to* in (17a) implies that Y knows that there is no milk and Y has planned to buy

some for a long time. On the other hand, the use of *will* in (17b) shows that Y does not intend to go and buy milk until X tells Y that there is none.

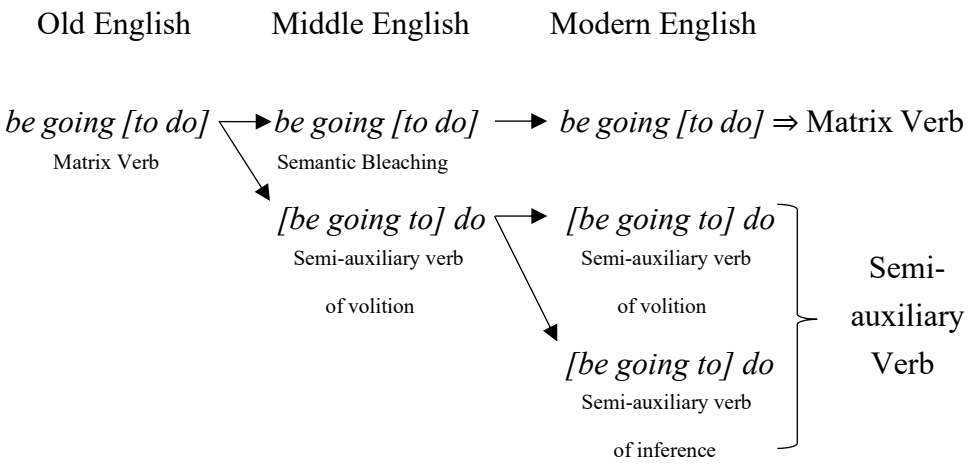
(17) a. X: There's no milk in the refrigerator.
Y: I***'m going to*** get some today. (Egawa 1991[3]: 222)
b. X: There's no milk in the refrigerator.
Y: I***'ll*** get some today. (ibid.)

Because of this semantic difference between them, only *be going to*, which denotes the intention prior to the time of utterance, is eligible in the following example where an adverb *already* is used.

(18) She***'s*** already ***going to buy*** some new shoes; she can't have a coat as well. (*She ***will*** already buy....) (Carter and McCarthy 2006: 631)

Therefore, the semi-auxiliary verb *be going to* indicates the preliminary process or preceding state, as demonstrated in Sato (2014: 103-105). The reason for the semantic similarity between *be going to* and the progressive form is that *be going to* was originally used as a lexical element in the progressive form, which gradually became grammaticalized into a functional element. As the process of grammaticalization of *be going to*, Hopper and Traugott (2003[2]: 69) and Hosaka (2014: 93-96) state that the structure of *be going to* acquired a functional property through its grammaticalization, as in Figure 1.

Figure 1. Grammaticalization of *BE GOING TO*



(Hosaka 2014: 96)

Because of the semantic similarity between *be going to* and the progressive form, *(be) going to* cannot appear in the bare infinitival complement and present participial complement of the perception verbs, as in (19), just as the *be + present participle* cannot appear in the complements, as in (20).

(19) a. *We ***saw*** John ***be going to leave***. (Felser 1999: 38)
b. *John ***saw*** Peter ***going to feed*** the cat. (Dik 1997: 112)
c. *Hannah ***heard*** the Wilsons ***going to take*** a trip to Egypt. (Kirsner and Thompson 1976: 154)

(20) a. *I ***saw*** John ***be sleeping***. (Declerck 1981: 91)
b. *I ***saw*** the man ***being crossing*** the road. (Okada 1985: 239)

3.1.3. Direct or Indirect Perception

The perception verbs do not take the *to*-infinitive, as shown in (21). As demonstrated in 2.1.4, the *to*-infinitive generally has a future indicative property, so (21) implies the perception of future events. However, it is impossible to directly perceive future events at the time of speech. Therefore (21) is not grammatically correct.

(21) a. *They ***saw*** her ***to represent*** the other tradition. (Bolinger 1975[2]: 399)
b. *We ***saw*** John ***to steal*** the car. (Gee 1977: 480)
c. *Bill ***saw*** Mary ***to eat***. (Nunes 1995: 359)
d. *We ***saw*** Kim ***to leave*** the bank. (Huddleston and Pullum 2002: 1237)

However, according to Bolinger (1975[2]: 399) and Declerck (1991: 490), the *to*-infinitival complement with verbs *be* or *have* is acceptable, as in (22), which denotes indirect perception, or an inference based on direct perception.[5]

(22) a. I ***saw*** them ***to be*** obnoxious. (Bolinger 1974: 66)
b. They ***saw*** her ***to be*** the one. (Bolinger 1975[2]: 399)
c. He ***saw*** the children ***to be eating*** their lunch. (Palmer 1987[2]: 199)
d. I ***saw*** the house ***to be painted*** white. (Declerck 1981: 86)
e. I ***see*** them ***to have arrived***. (Bolinger 1974: 77)
f. I ***saw*** the house ***to have been*** repainted. (Declerck 1991: 490)

This statement can be supported by the following examples. In general, individual-level predicates which intuitively denote permanent states are not acceptable in the complement of the perception verbs, as in (23), because the perception verbs which imply direct perception do not co-occur with non-perceivable events.

(23) a. Martha ***saw*** the policemen {***nude*** / ****intelligent*** / ***run into the bar*** / ***running into the bar*** / ****own a car*** / ****nice guys to old ladies*** / ***being heroes*** / ***be heroes*** / ***chased by the robbers*** / ****be mammals*** / ***in the cruiser*** / ***with the monster*** / ****liked by the robbers***}. (Carlson 1977: 125)

b. John ***saw*** Bill {***shot*** / ***stabbing pigeons*** / ***sick*** / ****tall*** / ***in the room*** / *(***going***) ***to see the movie*** / ****stab pigeons***}. (Milsark 1979: 101)

However, Higginbotham and Ramchand (1997: 58) argue that the individual-level predicates are acceptable only in the complement of perception verbs when a change in object is implied, as in (24b).

(24) a. *I ***saw*** John ***six feet tall***. (Higginbotham and Ramchand 1997: 58)

b. If John's height on a given day depended upon what pills he took in the morning, then you could ***see*** John ***six feet tall***. (ibid.)

Rather, in the *to*-infinitival complement for the active form, which implies indirect perception or report rather than direct perception, (25) is acceptable.

(25) a. I {***found*** / ***felt*** / ***saw***} her ***to be*** very Canadian (even though she's technically American). (Moulton 2009: 138)

b. I {***found*** / ***felt*** / ***saw***} him ***to be*** {***rude*** / ***pretty*** / ***a good doctor*** / ***tall***}. (ibid.)

The following examples can also provide further evidence that the *to*-infinitival complement of the perception verbs implies indirect perception. First, the perfect infinitive can appear in the *to*-infinitival complement, as shown in (26), whereas, as we have seen in 3.1.2, the perfect infinitive cannot appear in the bare infinitival complement, as in (27).

(26) a. I ***see*** them ***to have arrived***. (Bolinger 1974: 77)

b. I ***saw*** somebody ***to have entered*** the building. (van der Leek and Jong 1982: 112)

c. I ***saw*** the house ***to have been*** repainted. (Declerck 1991: 490)
d. Alex ***saw*** Julia ***to have been*** in a hurry when she dressed (because she was wearing her T-shirt inside out). (van der Leek 1992: 13)
e. I ***saw*** the library ***to have burned*** down. (Felser 1999: 41)

(27) a. *I don't like to ***see*** people ***have drunk***. (Nakau 1980: 147)
b. *I ***saw*** a great change ***have come*** over him. (Declerck 1981: 86)
c. *John ***saw*** the lawn ***have been mown***. (Declerck 1983a: 39)
d. *John ***saw*** Bill ***have left***. (Hornstein 1990: 154)
e. *We ***saw*** Mary ***have finished*** her breakfast. (Felser 1999: 32)

This is because the bare infinitival complement for the active form of the perception verbs indicates direct perception, while the *to*-infinitival complement indicates indirect perception. Therefore, on the *to*-infinitival complement which indicates indirect perception, the constraint of simultaneity is not imposed, and (26) is considered grammatical. Moreover, for almost the same reason as for the perfect infinitive in the bare infinitival complement, the occurrence of the *be + present participle* in the bare infinitival complement is not acceptable, as shown in (28).

(28) a. *I don't like to ***see*** people ***be drinking***. (Nakau 1980: 147)
b. *I ***saw*** John ***be sleeping***. (Declerck 1981: 91)
c. *We ***saw*** John ***be drawing*** a circle. (Felser 1998: 363)
d. *We ***saw*** Kim ***be leaving*** the bank. (Huddleston and Pullum 2002: 1237)
e. *Jane ***saw*** Peter ***be kissing***. (Gisborne 2010: 209)

On the other hand, the *be + present participle* can appear in the *to*-infinitival complement, as in (29). This is because the *to*-infinitival complement indicates the indirect perception or inference based on the direct perception and the constraint of simultaneity is not imposed on these examples. Therefore, the *be + present participle*, which cannot appear in the bare infinitival complement for direct perception, is acceptable in the *to*-infinitival complement for indirect perception.[6]

(29) a. She ***saw*** him ***to be falling*** over the bridge. (Hudson 1971: 177)
b. He ***saw*** the children ***to be eating*** their lunch. (Felser 1999: 32)
c. John ***saw*** Mary ***to be holding*** a straw up to her cheek.

(cf. Moulton 2009: 139)

d. Mary ***heard*** the teacher ***to be dropping*** a book. (cf. Moulton 2009: 140)

Furthermore, the semantic difference between these infinitives can also be seen in the following examples and acceptability. The *be + past participle* in the bare infinitival complement of the perception verbs is not grammatically correct, whereas it is acceptable in the *to*-infinitival complement.

(30) a. *I ***saw*** him ***be rejected***. (Bolinger 1974: 69)

b. *We ***saw*** John ***be hurt*** by a shell. (Declerck 1981: 87)

c. ??The policeman ***saw*** the prisoner ***be arrested***. (Basilico 2003: 9)

d. *Jane ***saw*** Peter ***be kissed***. (Gisborne 2010: 209)

(31) a. I ***saw*** the house ***to be painted*** white. (Declerck 1981: 86)

b. John ***sees*** a new syntactician ***to be needed***. (Moulton 2009: 161)

c. Avoiding Richard, who got to his feet as soon as he ***saw*** something ***to be carried***, she kicked open the top of the Arctic and flung them in golden handfuls onto the glowing bed of fuel. (BNC. W_fict_prose)

d. But hopefully it will also mean some people will ***see*** improvements ***to be made*** to the basemaps, and will get interested in joining in with the OpenStreetMap project (it's a lot of fun!) (COCA. 2012. BLOG)

Additionally, the bare infinitive indicates direct perception, perfectivity and completeness, so it cannot be followed by phrases that cancel the perceptual event and the perfectivity or completeness of the bare infinitive.

(32) a. *I ***saw*** her ***drown***, <u>but I rescued her</u>. (Kirsner and Thompson 1976: 215)

b. #Mary ***heard*** the teacher ***drop*** a book, <u>but he actually slammed a door</u>. (Moulton 2009: 140)

However, the *to*-infinitive indicates the inference or indirect perception, so it can be followed by the phrases that cancel the perceptual event.

(33) a. Martha ***saw*** Fred ***to be driving*** too fast, but he actually wasn't.
(Moulton 2009: 129)

b. John ***saw*** Mary ***to be holding*** a straw up to her cheek, but she was not holding a straw up to her cheek; she was drinking a soda. (Moulton 2009: 139)

c. Mary ***heard*** the teacher ***to be dropping*** a book, but he actually was slamming a door. (Moulton 2009: 140)

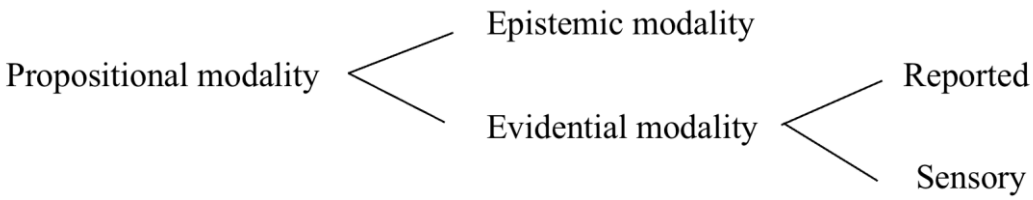
d. Martha ***heard*** Bob ***to be*** out of tune, but he wasn't. (Moulton 2009: 199)

From these linguistic facts, we can conclude that bare infinitival complements for the active form of perception verbs indicate direct perception, perfectivity and simultaneity, while *to*-infinitival complements for the active form of perception verbs indicate indirect perception, imperfectivity and non-simultaneity.

3.1.4. Evidentiality

Moreover, in addition to these aspectual properties, this paper assumes that non-finite verbs indicate evidentiality (cf. Mitchell (2009: 69) and Whitt (2010a: 256)). The evidentiality is part of modality, as shown in Figure 2 (cf. Palmer (2001^2: 22)) and Aikhenvald (2004) describe it as a grammatical category that changes the form of verbs, depending on information sources.

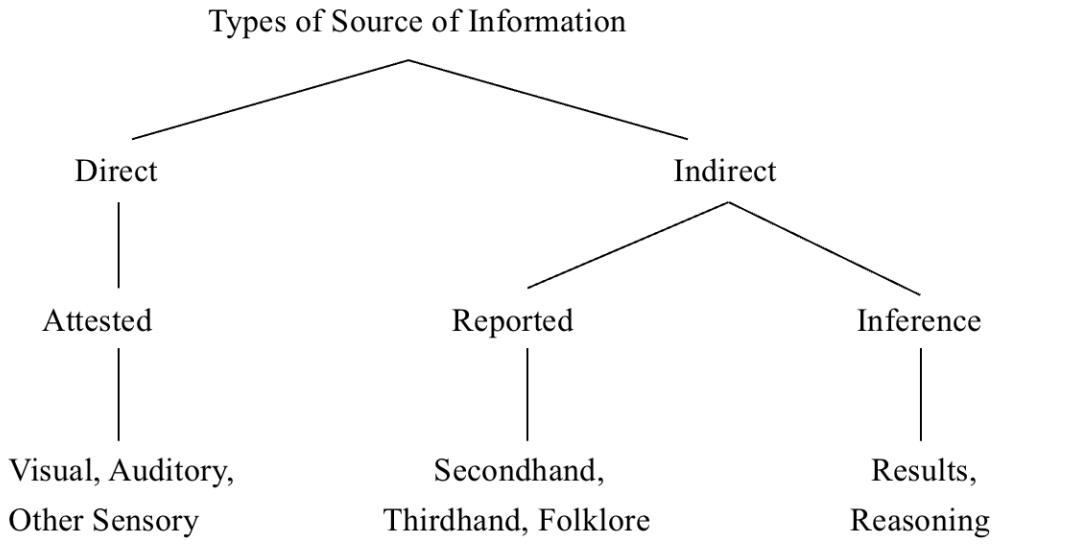
Figure 2. Classification of Modalities



(cf. Palmer 2001^2: 22)

Furthermore, according to Aikhenvald (2004: 1-2), what one knows based on what one sees and hears, and what one hears from others all constitute different sources of information. What is more, the verbal forms change accordingly. Additionally, although there have been various proposals for the classification of the evidentiality, such as Chafe (1986), this study follows Willett's classification. According to Willett (1988: 57), the category of evidentiality can be divided into direct and indirect evidentiality, as shown below.

Figure 3. The Classification of Evidentiality



(cf. Willett 1988: 57)

According to Narrog (2012: 11), current views on the evidentiality and its relationship to the modality differ quite radically. Previous studies, such as Palmer (2001[2]: 22) and Frawley (1992), have viewed the evidentiality as part of the modality. In particular, Aijmer (1980: 11) states that epistemic quantifiers are expressions which say something about the speaker's evidence and degree of certainty. Kroeger (2019: 322) also notes a correlation between source of information and speaker's degree of commitment because a speaker is likely to be more certain of knowledge gained through direct experience than of knowledge gained through hearsay or inference. On the other hand, previous studies such as Aikhenvald (2004: 7), de Haan (2006) and Cornillie (2009: 47) have claimed a strict distinction between modality and evidentiality. The debate is complicated by the fact that in languages such as English and German, by most accounts, the evidentiality is not fully developed as the grammatical category. Nevertheless, according to Narrog (2012: 11), German has two modal verbs with the evidential function, namely *sollen* as hearsay, and *wollen* as a non-speaker claim. The best examples in English are presumably adverbs such as *apparently* and *allegedly* and, depending on the point of view, semi-modals such as *seem*. Japanese has more examples of salient grammaticalized evidential markers, and they overlap heavily with the expression of the epistemic modality (cf. Narrog 2009: §10.5). Although it is difficult to explain this relationship between evidentiality and modality, Narrog (2009: 10) considers only the indirect evidentiality as

modality and direct evidentiality as non-modality. This paper also assumes that only indirect evidentiality can indicate modality, following Narrog's statement.

Regarding the evidentiality in the perception verbs, Mitchell (2009: 69) states that evidentiality is also implied by bare infinitival complements for the active form of perception verbs. Whitt (2010a) also states that the present participial complement indicates evidentiality, as in (34).

(34) I ***see*** the house ***burning***. It is this second proposition that carries evidential meaning, for it is here where the act of visual perception is used to describe the speaker's relationship with the first proposition, i.e., the house can be reported to be in a state of burning because the speaker has visual evidence to support this claim. (Whitt 2010a: 256)

In agreement with Mitchell and Whitt, this paper also assumes that non-finite verbs in the complements of perception verbs also connote evidential meaning. Furthermore, this evidentiality reflects the aspectual property of non-finite verbs in the complement.[7] As discussed in 3.1.1, the bare infinitive indicates perfectivity and denotes the perceptual event as a whole, so direct evidentiality of the bare infinitival complements of perception verbs is strong. On the other hand, the present participle indicates imperfectivity and denotes a part of the perceptual event so direct evidentiality of the present participial complements of perception verbs is weaker than that of the bare infinitival complement. The relevant examples are listed again below.

(35) a. I ***saw*** him ***cross*** the road. (From one side to the other.) (Allen 1974[5]: 186)
b. I ***heard*** the child ***cry***. (complete occurrence) (Espunya 1996: 113)
c. We ***watched*** the prisoners ***die***. (completed) (Akmajian 1977: 440)

(36) a. I ***saw*** him ***crossing*** the road. (On the way to the other side.) (Allen 1974[5]: 186)
b. I ***heard*** the child ***crying***. (actual ongoing event) (Espunya 1996: 113)
c. We ***watched*** the prisoners ***dying***. (incomplete) (Akmajian 1977: 440)

This is demonstrated by the following linguistic fact. Given that the bare infinitive has the aspectual property of perfectivity, its perfectivity cannot be cancelled out, as in (37). Yet, on the other hand, the present participial complement, which implies imperfectivity, can be followed by a negation that cancels out the perceptual event.

(37) a. *I ***saw*** her ***drown***, but I rescued her. (Kirsner and Thompson 1976: 215)
b. I ***saw*** her ***drowning***, but I rescued her. (ibid.)

Additionally, the bare infinitival complement cannot be followed by a phrase such as "but I don't know," as shown in (38), whereas the present participial complement can, as in (39). This is almost the same factor as acceptability in (37), but because the bare infinitive implies not only perfectivity but also strong direct evidentiality, reflecting the perfectivity of the bare infinitive, it implies a high degree of certainty. As such, this certainty cannot then be counteracted by the phrase such as "but I don't know" as in (38). On the other hand, the present participle denotes only the part of the perceptual event so it implies not only imperfectivity but also weaker direct evidentiality than the bare infinitive, reflecting its temporality; it can be followed by a phrase introducing uncertainty such as "but I don't know," as in (39).

(38) a. *We ***saw*** John ***die*** of cancer, but we had no idea that he died of cancer at that time. (Akmajian 1977: 448)
b. *I ***saw*** John ***enter*** the room, but I didn't know whether he actually got inside. (Kashino 2010: 408)

(39) a. I ***saw*** my mother ***approaching***. But now I don't know. It was her sister. (Bartsch 1995: 49)
b. I ***saw*** John ***entering*** the room, but I didn't know whether he actually got inside. (Kashino 2010: 408)

From the linguistic facts demonstrated above, one can rightly conclude that non-finite verbs occurring in the complement indicate not only aspectuality but also evidentiality. Even more to the point, a correlation is observed between the strength of evidentiality and the choice of non-finite verb in the complement.

(40) a. I ***saw*** him ***walk*** across the road. 【Direct Evidentiality: Strong】
b. I ***saw*** him ***walking*** across the road. 【Direct Evidentiality: Medium】
c. I ***saw*** him ***to be walking*** across the road. 【Direct Evidentiality: Weak】

In (40a), the bare infinitive has the aspect of perfectivity and implies that the whole of the perceptual event is perceived and the perceiver has enough evidence of the perceptual

event, thus indicating strong direct evidentiality reflecting its perfectivity. On the other hand, the present participial complement in (40b) connotes weaker certainty and evidentiality than the bare infinitive because it has the aspect of imperfectivity and implies that the only part of the event is perceived, and that the perceiver has limited evidence of the perceptual event. What is more, the *to*-infinitival complement in (40c) conveys weaker certainty and evidentiality than either the bare infinitive or the present participle. This is because it implies either the aspect of futurity (or what Comrie (1976: 64) calls prospective aspect), indirect perception, or inference based on direct perception. As for the evidentiality of the word *to*, Moulton (2009) provides the following examples.

(41) a. Martha ***saw*** Fred ***to be driving*** too fast, but he actually wasn't.
(Moulton 2009: 129)

b. John ***saw*** Mary ***to be holding*** a straw up to her cheek, but she was not holding a straw up to her cheek; she was drinking a soda. (Moulton 2009: 139)

c. Mary ***heard*** the teacher ***to be dropping*** a book, but he actually was slamming a door. (Moulton 2009: 140)

d. Martha ***heard*** Bob ***to be*** out of tune, but he wasn't. (Moulton 2009: 199)

In (41), one can see that the *to*-infinitival complement implies weak direct evidentiality or strong indirect evidentiality, which reflects its aspect of futurity.[8] Thus, it can be summarized that non-finite verbs that appear in complements for the active form of perception verbs can be used in different ways, depending on how the perceptual event is construed, such as aspect and evidentiality.

3.1.5. Summary

We have seen that each non-finite verb that a perception verb takes in its complement is semantically different. The bare infinitive denotes direct perception, perfectivity and simultaneity, while the *to*-infinitive denotes indirect perception, inference based on the direct perception and non-simultaneity. Furthermore, this paper has suggested that non-finite verbs that perception verbs take in their complements may indicate not only the aspect but also evidentiality that reflects the aspect. The bare infinitive indicates strong direct evidentiality or weak indirect evidentiality, reflecting its perfectivity, while the *to*-infinitive indicates weak direct evidentiality or strong indirect evidentiality, reflecting its futurity or the meaning of process. The next section discusses how these semantic features developed in the history of the English language.

3.2. Diachronic Analysis on Infinitival Selection in the Complements for the Active Forms of Perception Verbs

In the previous section, we discussed the meaning of non-finite verbs that occur in the complements for the active form of perception verbs. This section will analyze when and how the meanings of these non-finite verbs developed in the history of the English language. As the previous section shows, non-finite verbs in the complements of perception verbs in Present-Day English indicate the aspect (and evidentiality), as shown in (42) and (43).

(42) a. I ***saw*** him ***cross*** the road. (From one side to the other.) (Allen 1974[5]: 186)
b. I ***heard*** the child ***cry***. (complete occurrence) (Espunya 1996: 113)
c. We ***watched*** the prisoners ***die***. (completed) (Akmajian 1977: 440)

(43) a. I ***saw*** him ***crossing*** the road. (On the way to the other side.)
(Allen 1974[5]: 186)
b. I ***heard*** the child ***crying***. (actual ongoing event) (Espunya 1996: 113)
c. We ***watched*** the prisoners ***dying***. (incomplete) (Akmajian 1977: 440)

Nevertheless, as shown in (44), a diachronic survey of English Bibles suggests that these aspectual properties of non-finite verbs are diachronically unstable.

(44) a. 7 he cuoeð to him soðlice ic cuoeðo iuh forðon sint sume of her ðæm stondendum ða ðe ne ge-birgeð ðone deað oððæt ***geseað*** ric goddes ***cymende*** in mæghte ł on mægne (Lindisfarne Gospels. Mark 9: 1)
b. 7 he cwæð to ðæm soð ic cweðo iow foiðon sindun sume of her ðæm stondendum ðaðe ne gi-birgeð ðone deoð oððæt hiæ ***giseað*** rice godes ***cymende*** in mæhte (Rushworth Gospels. Mark 9: 1)
c. Þa sæde he him, Soðlice ic secge eow þæt sume synt her wuniende þe deað ne onbyrigeað, ær hi ***geseon*** Godes rice on mægne ***cuman***.
(West Saxon Gospels. Mark 9: 1)
d. And he seide to hem, Treuly I seie to ȝou, for `þer ben summe of men stondinge here, `þe whiche schulen not taste deeþ, til þei ***sen*** þe rewme of God ***comynge*** in vertu. (Wycliffe Bible Early Version. Mark 9: 1)

e. And he seide to hem, Treuli Y seie to you, that there ben summen stondynge here, whiche schulen not taste deth, til thei ***seen*** the rewme of God ***comynge*** in vertu. (Wycliffe Bible Late Version. Mark 9: 1)

f. And he saide vnto them, Verely I say vnto you, that there be some of them that stande here, which shall not taste of death till they haue ***seene*** the kingdome of God ***come*** with power. (Geneva Bible. Mark 9: 1)

g. And he said unto them, Verily I say unto you, That there be some of them that stand here, which shall not taste of death, till they have ***seen*** the kingdom of God ***come*** with power. (Authorized Version. Mark 9: 1)

h. And he said unto them, Verily I say unto you, There be some here of them that stand by, which shall in no wise taste of death, till they ***see*** the kingdom of God ***come*** with power. (Revised Version. Mark 9: 1)

i. And he said to them, "Truly, I say to you, there are some standing here who will not taste death before they see that the kingdom of God has come with power." (Revised Standard Version. Mark 9: 1)

j. And he said to them, "Truly I tell you, there are some standing here who will not taste death until they see that the kingdom of God has come with power." (New Revised Standard Version. Mark 9: 1)

Looking at the English translation of the Bibles diachronically, as in (44), we can find that the Lindisfarne Gospels and the Rushworth Gospels (which were written in Old English) use the present participle (*-ende* / *-endne*), whereas the West Saxon Gospels (also written in Old English) use the bare infinitive (*-an* / *-ian*), as in (44a-c); the Wycliffe Bible (written in Middle English) uses the present participle while Bibles (written in the Modern English and Present-Day English) use the bare infinitive and *that*-clause, as in (44d-j). Additionally, although the *to*-infinitive cannot appear in the complement for the active form of perception verbs in Present-Day English except when followed by verbs such as *be* or *have*, as in (45), the examples of the *to*-infinitival complement for the active form of perception verbs are detected in EEBO, as in (46).

(45) a. *Bill ***saw*** Mary ***to eat***. (Nunes 1995: 359)

b. *We ***saw*** Kim ***to leave*** the bank. (Huddleston and Pullum 2002: 1237)

(46) a. what pleasure can we conceive the almighty should take in ***seeing*** us ***to destroy*** his creatures for his sake? (EEBO. 1676)

b. he could not ***see*** him ***to give*** him any assistance: (EEBO. 1689)

The following sections diachronically scrutinize when the function of the bare infinitives and present participles as in (42) and (43) was established and when the use of the *to*-infinitives in (46) declined.

3.2.1. Infinitival Selection in the Complements for the Active Forms of Perception Verbs in Old English

As demonstrated in the previous section, it is assumed that the non-finite verbs in the complement of the perception verbs were semantically ambiguous in their aspect. First, as for the present participial complements in Old English, it agreed morphologically in gender, number and case with the logical subject, as in (47). In (47), the noun *gast* with morphemes of masculine, singular and accusative, and the present participle (*cumendne*, *stigendne* and *wuniendne*), also with the morphemes of the masculine, singular and accusative, are morphologically identical.

(47) a. And Iohannes cyþde gewitnesse cweðende, Þæt ic ***geseah*** nyðer ***cumendne*** Gast of heofenum swa swa culfran, and wunode ofer hine.
(West Saxon Gospels. John 1: 32)

b. And ic hine ne cuðe; ac se þe me sende to fullianne on wætere, he cwæð to me, Ofer þone þe ðu ***gesyhst*** nyðer ***stigendne*** Gast and ofer hine ***wuniendne***, þæt is se ðe fullað on Halgum Gaste. (West Saxon Gospels. John 1: 33)

This morphological agreement in the gender, number and case is not found in Present-Day English, but it is common in the Latin Bible Vulgata and in the Gothic Bible Wulfila, which differ from Present-Day English and retain the inflectional affixes, as in (48) and (49).

(48) a. et testimonium perhibuit Iohannes dicens quia ***vidi*** Spiritum ***descendentem*** quasi columbam de caelo et mansit super eum
(Participle: accusative masculine singular of *dēscendens*)
(Vulgata. John 1: 32)

b. et ego nesciebam eum sed qui misit me baptizare in aqua ille mihi dixit super quem ***videris*** Spiritum ***descendentem*** et manentem super eum hic est qui baptizat in Spiritu Sancto
(Participle: accusative masculine singular of *dēscendens*)

(Vulgata. John 1: 33)

(49) a. jah duatgaggands ains þize bokarje, ***gahausjands*** ins samana ***sokjandans***, gasaihvands þatei waila im andhof, frah ina: hvarja ist allaizo anabusne frumista? (Present participle: weak masculine accusative plural of *sokjan*)
(Wulfila. Mark 12: 28)

b. jah afar þata usiddja jah ***gasahv*** motari, namin Laiwwi, ***sitandan*** anamotastada, jah qaþ du imma: laistei afar mis.
(Present participle: weak masculine accusative singular of *sitan*)
(Wulfila. Luke 5: 27)

The morphological agreement is also observed in the Lindisfarne Gospels and the Rushworth Gospels written in Old English, as in (50) and (51), and it is assumed that the present participial complement of the perception verbs in Old English agreed with the logical subject morphologically in order to show predications.

(50) f'ðon ue ***geherdon*** hine ***cwoedne ł cuoeðende*** ic undoe ł ic toslito tempel ðis mið honde aworht 7 ðerh ðreo dogor oðer ne mið honde aworht ic getimbro willo (Lindisfarne Gospels. Mark 14: 58)

(51) a. þa gedeped [wæs] se hælend hræþe astag. þæm wættre. henu him weron ontynde heofunas. he ***gesæg*** godes gast ***niþer-stigendne*** swa. cumende hine
(Rushworth Gospels. Matthew 3: 16)

b. 7 ***gesegun*** hine ofer þone sae ***gangandne*** gedryfed werun in mode cweþende þe þæt scinlae wære 7 for ægsa cliopadun.
(Rushworth Gospels. Matthew 14: 26)

Furthermore, the present participle *-ende* with no morphological affix for gender is syntactically equivalent to the present participle *-endne* with morphological affix because they are juxtaposed by a coordinate conjunction *and*, as in (52). Therefore, it is assumed that the morpheme *-ende*, which was almost leveled morphologically, was also used to represent predication by agreeing with the case of the logical subject, as in *-endne*.

(52) Ða cwæð se Hælynd him to, Þæt ðu sædest. Soð ic eow secge, Æfter þyson ge ***geseoð*** mannes Bearn ***sittende*** on þa swiðran healfe Godes mægenþrymmes, and ***cumendne*** on heofones wolcnum. (West Saxon Gospels. Matthew 26: 64)

According to Matsunami (1965: 121), such usage of the present participle was not frequent in Old English (cf. Matsunami (1964: 36)) and is derived from an object modifier or appositive expression, so it originally has the accusative case. Declerck (1982: 16-17), Felser (1999: 68-71) and Lowrey (2014) also consider the present participle appearing in this construction in Present-Day English as a free adjunct or pseudo-modifier and analyze the function of the present participle as a kind of appositive modifier to the accusative noun or the logical subject. This seems to make it certain that the present participial complement of the perception verbs in Old English agreed with the logical subject morphologically in order to show the predications.

In addition, the bare infinitive (*-an* / *-ian*) was also used in the complement for the active form of the perception verbs in Old English, as in (53) and the similar phenomenon is also observed in the infinitival complement of causative verbs in Old English, as we have seen in 2.2.1.

(53) a. Soðes we ***gehyrdon*** hine ***secgan***, Ic towurpe þis handworhte tempel, and æfter þrim dagum ic oðer unhandworht getimbrie.
(West Saxon Gospels. Mark 14: 58)

b. And þa he ut eode embe underntide, he ***geseah*** oþre on stræte idele ***standan***.
(West Saxon Gospels. Matthew 20: 3)

The bare infinitive *-(i)an* in Old English, which originally had the inflectional affix of neuter, singular and accusative in Proto-Indo-Europeans, is said to have been used in the nominative and accusative cases in Old High German and Old English, as in (54).

(54) The Origin of the Bare Infinitive

*-onom (PIE) → *-onom (PIE) → *-anam (PIE) → -an (Gothic) →
Neuter. Sg. Acc

-an (OHG / OE)
Nom / Acc

(cf. Yamakawa (1960: 89) and Hogg and Fulk (2011: 216))

The fact that the bare infinitive was a noun with accusative case suggests that, like the present participle, it may have denoted predication through morphological agreement in a small clause, as shown in (55) and the case of the causative verbs in Old English.

(55) a. Soðes we ***gehyrdon*** [Small Clause hine ***secgan***], (=53a)
Acc Acc

b. he ***geseah*** [Small Clause oþre on stræte idele ***standan***]. (=53b)
Acc Acc

The empirical evidence of the morphological agreement between the logical subject and the bare infinitive in the complement is the example in which the present participle and the bare infinitive are juxtaposed by the coordinate conjunction *and*, as shown in (56). Lowrey (2014) also states that the present participle (*-ende*) and the bare infinitive (*-(i)an*) are juxtaposed by the coordinate conjunction *and*, as shown in (56) and thus the bare infinitive also has the same syntactic properties as the present participle, i.e., the bare infinitive also has properties as the free adjunct or pseudo-modifier.

(56) a. Ic ***geseah*** þa englas, þe eower gymdon, dreorige ***wepan***, and ða awyrigedan sceoccan ***blissigende*** on eowerum forwyrde
'I ***saw*** the angels who had charge of you ***weep***[***ing***] drearily, and the accursed fiend ***rejoicing*** in your destruction'
(Ælfric, Homilies, 66: 35; Lowrey 2014: 50)

b. Þa ***geseah*** he on swefne ***standan*** ane hlædre fram eorðan to heofenan, 7 Godes englas up ***stigende*** 7 nyþer ***stigende*** on þære hlædre
'Then he ***saw*** in a dream a ladder ***stand***[***ing***] from earth to heaven, & God's angels ***going*** up & ***going*** down on the ladder' (Heptateuch, 56: 12; ibid.)

c. Ond mon ***geseah*** hine blinde ***onlyhtende***, ond hreofe ***clænsian***, ond laman ***gelacnian***, ond deofol of mannum ***drifan***, 7 deade ***aweccan***, 7 windum stilnesse ***bebeodan***, 7 dryum fotum ***gan*** ofer sæs yþa, 7 oþre wundro manega ***wyrcean***
'And people ***saw*** him ***giving*** light to the blind, and ***cleans***[***ing***] lepers, and ***driv***[***ing***] the devil from men, & ***wak***[***ing***] the dead, & ***order***[***ing***] the wind to be still, & ***go***[***ing***] over the waves of the sea with dry feet, & ***perform***[***ing***] many other wonders' (Blickling, 124: 91; Lowrey 2014: 51)

A further similar linguistic phenomenon is the case of personal infinitives in Portuguese. According to Scida (2004: 13), Hornstein et al. (2006: 82) and Uriageraka (2006: 269), in order to emphasize the logical subject or avoid ambiguity, the infinitives are given the inflectional morphemes that agree with the person and number of the logical subject, as in (57).

(57) O João ***viu*** / ***ouviu*** / ***deixou***-os ***entrarem*** na sala.
the João saw / heard / let CL.3PL.ACC enter-INF-3PL in-the room
'João saw / heard / let them enter the room' (Hornstein et al. 2006: 82)

Such infinitives are also found in Modern Greek (cf. Miller (2002)), Galician and Hungarian (cf. Asaka (1984: 126)), as shown in (58).

(58) a. ton ida na grafi
him I.saw NMF write.3sg
'I saw him write.' (Miller 2002: 101)
b. ton vazo na tiganizi psaria
him put.1sg NMF fry.3sg fish
'I'm making him fry fish.' (ibid.)

Onions (1904: 119) also points out the possibility that the infinitive in *accusative with infinitive* in Present-Day English is an adjunct.

These linguistic facts suggest that non-finite verbs in the complements for perception verbs in Old English were morphologically identical with the logical subjects in order to denote the predication. Did they then have the same aspectual differences as the non-finite verbs appearing in the complement of the perception verbs in Present-Day English? According to Zeitlin (1908: 66), Stewart (1976: 36), Mitchell (1985: 894) and Yamamoto (1991: 202), there was no aspectual difference, such as the (im)perfectivity or (in)completeness, in non-finite verbs in complements for perception verbs in Old English. Thus, non-finite verbs were interchangeable, which is demonstrated by the lack of consistency in the choice of non-finite verb in the complements for perception verbs in English Bibles as in (59) and (60).

(59) a. And þonne ge ***geseoð*** suðan ***blawan***, ge secgaþ, Þæt [hæte] is towerd; and hit byð. (West Saxon Gospels. Luke 12: 55)
b. And whanne `ȝe ***seen*** þe souþ ***blowynge***, ȝe seyen, For heete schal be; and so it is don. (Wycliffe Bible Early Version. Luke 12: 55)
c. And whanne ye ***seen*** the south ***blowynge***, ye seien, That heete schal be; and it is don. (Wycliffe Bible Late Version. Luke 12: 55)
d. And when ye ***see*** the South winde ***blowe***, ye say, that it wilbe hoate: and it commeth to passe. (Geneva Bible. Luke 12: 55)

e. And when ye ***see*** the south wind ***blow***, ye say, There will be heat; and it cometh to pass. (Authorized Version. Luke 12: 55)

f. And when ye ***see*** a south wind ***blowing***, ye say, There will be a scorching heat; and it cometh to pass. (Revised Version. Luke 12: 55)

g. And when you ***see*** the south wind ***blowing***, you say, 'There will be scorching heat'; and it happens. (Revised Standard Version. Luke 12: 55)

h. And when you ***see*** the south wind ***blowing***, you say, 'There will be scorching heat'; and it happens. (New Revised Standard Version. Luke 12: 55)

(60) a. And ic hine ne cuðe; ac se þe me sende to fullianne on wætere, he cwæð to me, Ofer þone þe ðu ***gesyhst*** nyðer ***stigendne*** Gast and ofer hine ***wunienden***e, þæt is se ðe fullað on Halgum Gaste. (West Saxon Gospels. John 1: 33)

b. And I knew `not him; but he þat sente me for to baptise in watir, seyde to me, On whom þou schalt ***se*** þe Spirit ***comynge*** doun, and ***dwellinge*** on him, þis it is, þat baptisiþ in þe Hooly Gost.
(Wycliffe Bible Early Version. John 1: 33)

c. And Y knew hym not; but he that sente me to baptise in watir, seide to me, On whom thou ***seest*** the Spirit ***comynge*** doun, and ***dwellynge*** on hym, this is he, that baptisith in the Hooli Goost.
(Wycliffe Bible Late Version. John 1: 33)

d. And I knewe him not: but he that sent me to baptize with water, he saide vnto me, Vpon whom thou ***shalt see*** that Spirit ***come*** downe, and ***tary*** still on him, that is he which baptizeth with the holy Ghost. (Geneva Bible. John 1: 33)

e. And I knew him not: but he that sent me to baptize with water, the same said unto me, Upon whom thou shalt ***see*** the Spirit ***descending***, and ***remaining*** on him, the same is he which baptizeth with the Holy Ghost.
(Authorized Version. John 1: 33)

f. And I knew him not: but he that sent me to baptize with water, he said unto me, Upon whomsoever thou shalt ***see*** the Spirit ***descending***, and ***abiding*** upon him, the same is he that baptizeth with the Holy Spirit.
(Revised Version. John 1: 33)

g. I myself did not know him; but he who sent me to baptize with water said to me, 'He on whom you ***see*** the Spirit ***descend*** and ***remain***, this is he who baptizes with the Holy Spirit.' (Revised Standard Version. John 1: 33)

h. I myself did not know him, but the one who sent me to baptize with water said to me, 'He on whom you ***see*** the Spirit ***descend*** and ***remain*** is the one who baptizes with the Holy Spirit.'

(New Revised Standard Version. John 1: 33)

As for the bare infinitival complement in Old English, Quirk and Wrenn (1958: 86) claim that this component could imply the progressive aspect if the verb of its complement means "movement," "pause" or "observation." According to the OED (*s.v. see*, *v.*1a(b)), the semantical differences among the non-finite verbs in early English were ambiguous. Morita (2007: 153) also states the aspectual differences found in Present-Day English developed after Early Modern English.

On the other hand, regarding the present participial complements of the perception verbs, Callaway (1913: 225, 227) and Araki and Ukaji (1984: 448) note that they developed in Old English translations of Latin through imitations of Latin. Callaway (1913: 225) points out a possibility that the appearance of *accusative with participle* is due to the analogy of the structure of *accusative with infinitive*. However, the present participial complement did not become widespread, whereas the bare infinitive was commonly used (cf. Ono and Nakao (1980: 438)). Thus, it is likely that there was originally no semantic difference between the two structures. According to Yamakawa (1963: 87-88), present participles in the complement of the perception verbs in Present-Day English cannot be found in Present-Day French and Present-Day German. The OED (*s.v. hear*, *v.* 3a) points out that the present participial complement of *hear* was originally derived from *a -ing* of *hear NP a -ing*, which is verbal, but no such example is provided (for a similar analysis, see Dal (1952:102), Ono and Nakao (1972: 388), Traugott (1992: 189) and Miller (2002: 278)). According to Morris (1872: 261), in Late Old English after the Norman Conquest, there were a number of participles following prepositions such as *on*, *an*, *in* and *a*, but in earlier Latin translations in Old English, the present participle such as "He is gangende" was used while the expressions such as "He is on gangung" cannot be confirmed. This makes it difficult to say that the present participial complement of *hear NP -ing* was originally *hear NP a -ing*, and it is more likely that it was created by imitation of the Latin. According to López (2018: 92-93, 96), the (adjectival) inflectional affixes of the present participle in Old English remained richer than those of the past participle. Additionally, apart from Latin translations, structures in which the present participle directly accompanied the object are rare (cf. Ono and Nakao (1980: 441)). Thus, the present participial complement in Old English seems to have been more adjectival than verbal. This idea suggests that the non-finite verbs in the complements of the

perception verbs in Old English did not have the same aspectual properties of (in)completion that are found in Present-Day English. As for the aspectual properties of the bare infinitival complements of perception verbs in Old English, the following examples can be found that indicate that the bare infinitives in Old English did not have the aspect of perfectivity, as shown in (61) and (62).

(61) a. ac mē ġeūðe ylda Waldend, þæt iċ on wāge ***ġeseah*** wlitiġ | ***hangian*** eald-sweord ēacen (Beowulf. 1661-1663a)

b. ***Ġeseah*** ðā siġe-hrēðiġ, þā hē bī sesse ġēong, mago-þeġn|mōdiġ, māððum-siġla fealo, gold glitinian grunde ġetenġe, wundur on wealle, ond þæs wyrmes denn ealdes ūht-flogan, orcas ***stondan***, (Beowulf. 2756-2760)

c. Swylċe hē ***siomian ġeseah*** seġn eall-gylden hēah ofer horde, hond-wundra mæst, ġelocen leoðo-cræftum; (Beowulf. 2767-2769a)

d. Næs ðā on hlytme, hwā þæt hord strude, syððan orwearde ænigne dæl seċġas ***ġesēgon*** on sele wunian, læne ***liċġan***; (Beowulf. 3126-3129a)

(62) a. þrere gen to dæge mæg mon ***geseon*** þa weallas ***stondan***
(Bede 2 23.144.4; Denison 1993: 175)

b. ***Gesawon*** hie þær weallas ***standan***, (Exodus. 572)

c. ***Geseh*** he geblowene bearwas ***standan*** blædum gehrodene, swa he ær his blod aget. (Andreas. 1448-1449)

d. He be wealle ***geseah*** wundrum fæste under sælwage stapulas ***standan***, sweras unlytle storme bedrifene, (Andreas. 1492-1494)

e. ***Ġeseah*** ðā be wealle |sē ðe worna fela gum-cystum gōd gūða ġedīġde, hilde-hlemma, þonne hnitan fēðan, ***sto[n]dan*** stān-bogan, strēam ūt þonan brecan of beorge; (Beowulf. 2542-2546a)

As this issue will be discussed in detail in 3.2.3, these examples are not acceptable in Present-Day English, as in (63) and (64).

(63) a. *I ***saw*** the ladder ***lean*** against the side of the house.
(Kirsner and Thompson 1976: 220)

b. *I ***saw*** the lamp ***stand*** on the table. (Akmajian 1977: 440)

c. *He ***saw*** a portrait of Sapir ***hang*** on the wall. (Seki 1989: 93)

(64) a. !We ***saw*** Rome ***stand*** on the Tiber. (Gisborne 2010: 206)
b. *We ***saw*** there ***stand*** a giant monument. (Felser 1999: 170)

However, according to Ogura (p.c.), *standan* in (61) and (62) can have the similar meaning of *be*; copula and existence (cf. Ogura (2014: 119)). Examples were also detected where verbs expressing almost the same meaning as *standan* were used in the bare infinitival complement of the perception verb *see*, as in (65). Ogura (p.c.) states that *hlifigan* in these examples seems not to have the meaning of copula and existence.

(65) a. ***Gesawon*** ofer since salo ***hlifian***, reced ofer readum golde.
(Genesis A, B. 2405-2406a)
b. þa se eadega wer ***geseah hlifigan*** swa him sægde ær hea dune swegles aldor. (Genesis A, B. 2877b-2879)
c. Ic ***seah*** on bearwe beam ***hlifian***, (Riddle. 53. 1)
d. Babilone burh, on his blæde ***geseah***, Sennera feld sidne bewindan, heah ***hlifigan***; (Daniel. 600-604)

Furthermore, similar examples were detected for verbs other than the perception verb *see*, as shown in (66).

(66) a. oþ þæt hē færinga fyrġen-bēamas ofer hārne stān ***hleonian funde***,
(Beowulf. 1414-1415)
b. oæt he ***gemette*** be mearcpae ***standan*** stræte neah stapul ærenne.
(Andreas. 1060-1062)

These linguistic facts suggest that the bare infinitival complement of the perception verbs in Old English may not have indicated the same aspect as in Present-Day English. The acceptability of (63) and (64) will be dealt with in 3.2.3, as these constructions are often detected in Early Modern English.

3.2.2. Infinitival Selection in the Complements for the Active Forms of Perception Verbs in Middle English

Non-finite verbs in Middle English also did not have the aspectual properties found in Present-Day English. Regarding non-finite verbs in the complements of perception verbs in Middle English, Mossé (1938: 87) argues that the bare infinitive and present participle

in Middle English were interchangeable due to the phonetic similarity between the present participle and infinitive. This likeness can be observed by diachronically examining the English Bibles, as in the following examples. As in Old English, in (67) and (68), the same non-finite verbs have not been used consistently from Middle English to Present-Day English.

(67) a. And Dauid, rerynge his eeȝen up, ***sawe*** þe aungel of þe Lord ***stondynge*** bitwene heuene and erþe, and a drawn swerd in his hond, and turned aȝeinus Jerusalem. And þere fellen downe as wele he as þe more þoruȝ birþe, cloþid wiþ heyris, bowed doun in to þe erþ.

(Wycliffe Bible Early Version. 1 Chronicles 21: 16)

b. And Dauid reiside hise iyen, and ***siy*** the aungel of the Lord ***stondynge*** bitwixe heuene and erthe, and a drawun swerd in his hond, and turnede ayens Jerusalem. And bothe he and the grettere men in birthe weren clothid with heiris, and felden doun lowe on the erthe.

(Wycliffe Bible Late Version. 1 Chronicles 21: 16)

c. And Dauid lift vp his eyes, and ***sawe*** the Angel of the Lord ***stande*** betweene the earth and the heauen with his sworde drawen in his hand, and stretched out towarde Ierusalem. Then Dauid and the Elders of Israel, which were clothed in sacke, fell vpon their faces. (Geneva Bible. 1 Chronicles 21: 16)

d. And David lifted up his eyes, and ***saw*** the angel of the Lord ***stand*** between the earth and the heaven, having a drawn sword in his hand stretched out over Jerusalem. Then David and the elders of Israel, who were clothed in sackcloth, fell upon their faces. (Authorized Version. 1 Chronicles 21: 16)

e. And David lifted up his eyes, and ***saw*** the angel of the LORD ***stand*** between the earth and the heaven, having a drawn sword in his hand stretched out ever Jerusalem. Then David and the elders, clothed in sackcloth, fell upon their faces. (Revised Version. 1 Chronicles 21: 16)

f. And David lifted his eyes and ***saw*** the angel of the LORD ***standing*** between earth and heaven, and in his hand a drawn sword stretched out over Jerusalem. Then David and the elders, clothed in sackcloth, fell upon their faces. (Revised Standard Version. 1 Chronicles 21: 16)

g. David looked up and ***saw*** the angel of the Lord ***standing*** between earth and heaven, and in his hand a drawn sword stretched out over Jerusalem. Then David and the elders, clothed in sackcloth, fell on their faces.

(New Revised Standard Version. 1 Chronicles 21: 16)

(68) a. she seide to hir sone Jacob, I ***herde*** þi fader ***spekynge*** wiþ Esau, þi broþer, and seiynge to hym, (Wycliffe Bible Early Version. Genesis 27: 6)

b. sche seide to hir sone Jacob, Y ***herde*** thi fadir ***spekynge*** with Esau, thi brothir, and seiynge to him, Brynge thou me of thin huntyng, (Wycliffe Bible Late Version. Genesis 27: 6)

c. Then Rebekah spake unto Jacob her son, saying, Behold, I have ***heard*** thy father ***talking*** with Esau thy brother, saying, (Geneva Bible. Genesis 27: 6)

d. And Rebekah spake unto Jacob her son, saying, Behold, I ***heard*** thy father ***speak*** unto Esau thy brother, saying, (Authorized Version. Genesis 27: 6)

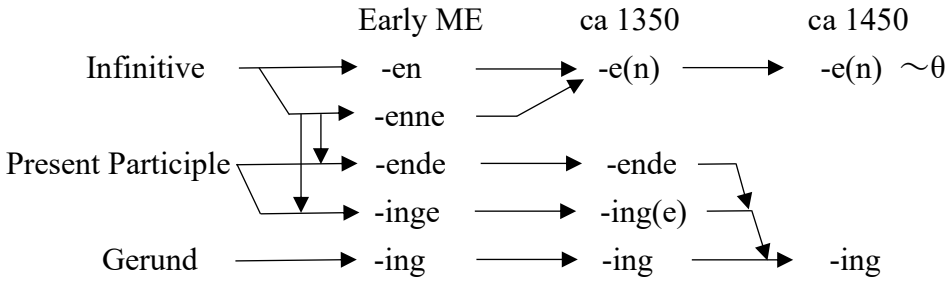
e. And Rebekah spake unto Jacob her son, saying, Behold, I ***heard*** thy father ***speak*** unto Esau thy brother, saying, (Revised Version. Genesis 27: 6)

f. Rebekah said to her son Jacob, "I ***heard*** your father ***speak*** to your brother Esau, (Revised Standard Version. Genesis 27: 6)

g. Rebekah said to her son Jacob, “I ***heard*** your father ***say*** to your brother Esau, (New Revised Standard Version. Genesis 27: 6)

As for the semantic differences between the present participle and bare infinitive in the complement of the perception verbs in Middle English, Mustanoja (1960: 552) states that while the bare infinitive recorded the mere fact, the present participle brought the dynamic element into the picture. However, according to Mustanoja (1960: 553) and Araki and Ukaji (1984: 448), the present participial complement in Middle English did not expand, whereas the bare infinitival complement was common. Furthermore, in addition to the phonological similarities between the present participle and bare infinitive pointed out by Mossé (1938: 87), there are morphological similarities between the present participle and infinitives, as shown in Figure 4 (cf. Nakao (1972: 320), Omura (1997: 328-329) and Ukaji (2000: 270)).

Figure 4. Morphological Mixing of Non-finite Verbs in Middle English



(cf. Ukaji 2000: 270)

Miller (2002: 264) states that in Early Middle English, as in (69), the bare infinitival complement was used exclusively, even in a sentence in which the present participle could also be used.

(69) a. and ***sihst*** þu þas ærnes ***teon***?
‘and ***seest*** thou these eagles ***fly(ing)***?’ (Laʒamon 10,959; Miller 2002: 264)
b. Arður ***isæh*** Colgrim ***climben*** to munten
‘Arthur ***saw*** Colgrim ***climb(ing)*** the hillside’ (Laʒamon 10,619; ibid.)

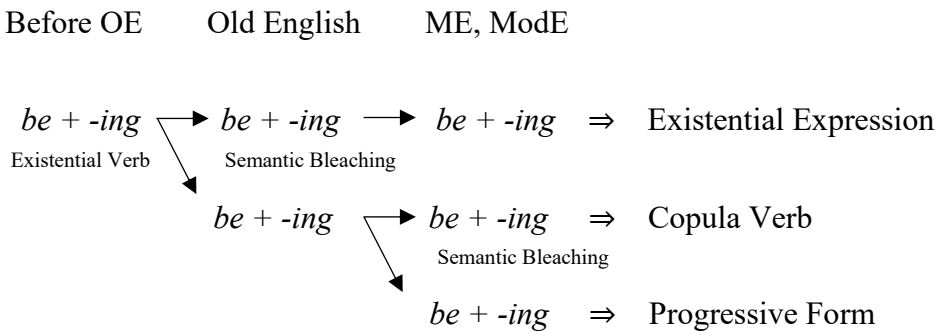
Additionally, the progressive forms which are semantically equivalent to the present participial complement of the perception verbs (as shown in 1.2.2) came to be used in various ways in Middle English, as demonstrated in (70), but the progressive forms in Old English and Middle English are said to have implied temporality and permanence (cf. Kranich (2010: 86) and Hosaka (2014: 103-104)).

(70) a. Occurrence of ‘TO BE -ing’ (Denison 1993: 384)
b. Occurrence of ‘Present perfect + BE -ing’ (ibid.)
c. Occurrence of ‘Modal auxiliary verbs + BE -ing’ (ibid.)
d. Occurrence of ‘BE -ing OF NP’ (Denison 1993: 388)

The progressive forms have been grammaticalized since Modern English, as in Figure 5 and Figure 6. As for the grammaticalization of the progressive forms, Tsukamoto (2020) explains that language change has a constant rate of change. For instance, the establishment of language change took approximately 200-250 years. Thus, as with the analysis in Old English, it is difficult to state whether the present participle in the

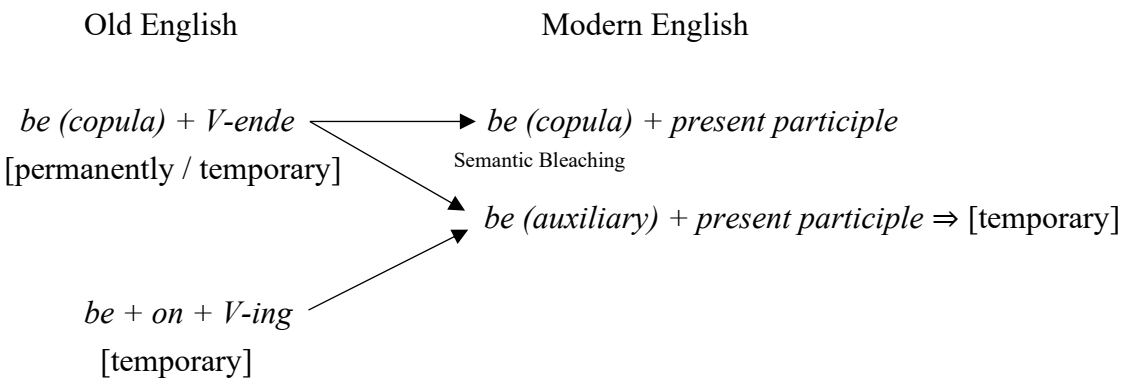
complement of the perception verbs established the aspectual properties prior to the progressive forms.

Figure 5. Grammaticalization of Progressive Forms



(Hosaka 2014: 106)

Figure 6. Semantic Change of Progressive Forms



(Hosaka 2014: 109)

Finally, according to Higuchi (1996: 327), examples of the present participial complement coordinated with an adjective (See also in Bo I, p.5, 5; II, p. 8, 24.) and accompanying an *of*-phase (See also in Bo I, p.4, 182; IV, p. 2, 124.) can be found in Chaucer's English, as in (71).

(71) a. for whiche Ulixes hadde joye whan he ***say*** Poliphemus ***wepynge*** and ***blynd***.
(Bo IV, m.7, 27; Higuchi 1996: 327)

b. The amyable Fortune maystow ***seen*** alwey wyndy and flowynge, and evere ***mysknowynge of*** hirself; (Bo II, m.8, 25; ibid.)

As we have seen in the previous section that the present participial complement in Old English tended to be more adjectival and less verbal, it is assumed that same can be said for Middle English.

These linguistic facts suggest that due to the compatibility of non-finite verbs mentioned in Mossé (1938: 87), non-finite verbs occurring in the complements of perception verbs in Middle English did not have the (non-)perfective or (in)complete aspectual property, as seen in Present-Day English.

3.2.3. Infinitival Selection in the Complements for the Active Forms of Perception Verbs in Modern English

As demonstrated in the previous section, non-finite verbs in Old English and Middle English did not have the aspectual properties found in Present-Day English. Moreover, non-finite verbs in Early Modern English also show the possibility that they did not have the same aspectual properties as in Present-Day English. As for the present participial complement in the perception verbs in Modern English, Araki and Ukaji (1984: 448) and Omura (1997: 338) state that it has been frequently used since the beginning of Modern English. According to Morita's (2007: 153) research on the perception verbs in the Authorized Version, the aspectual differences in the bare infinitive and present participle developed since Early Modern English.

However, it is difficult to determine whether the aspectual differences of non-finite verbs in the complements of perception verbs emerged in Early Modern English, only on the basis of the increase of the present participial complements. This paper scrutinizes this issue from four perspectives: (i) the relationships between the logical subject and non-finite verbs in the complement, (ii) the rise of stative verbs in the complement of the perception verbs, (iii) the rise of "*prepositions* + *-ing*" in the complement of the perception verbs, and (iv) the rise of passive expressions in the complement of the perception verbs.

First, in EEBO, there are 141 examples of the bare infinitive of positional verbs in the complement of the perception verb *see* co-occuring with an inanimate logical subject having a feature of movability, as shown in (72).[9] [10]

(72) a. thus Iacob the sonne of isaac ***sawe*** a ladder ***stand*** vpon the earth, (EEBO. 1582)

b. you shall ***see*** a beacon ***stand*** vpon the west end of the skelling, (EEBO. 1605)

c. wee haue ***seene*** the axe ***lie*** at the roote of our greatest cedars, (EEBO. 1606)

d. he that ***sees*** a pearl ***lye*** among a great deal of trash, (EEBO. 1697)
e. Mee thinkes i ***see*** a sword ***hang*** in the ayre by a twine threed, (EEBO. 1599)
f. but in the meane time, ***seeing*** a knife ***hang*** at one of the Schollers girdels, (EEBO. 1607)

The above examples are not acceptable in Present-Day English. When positional verbs such as *lean*, *lie*, *stand*, and *hang* appear in the complement of the perception verb *see*, as in (73), some constraints are imposed on the choice of logical subject and non-finite verb (cf. Felser (1999: 43), Shirai (1999: 66) and Swan (2016[4]: §110). Similar acceptability is also found in the complement of the causative verb *have*, as in (74).

(73) a. I ***saw*** Bill {***leaning*** / ***lean***} against the side of the house. (Kirsner and Thompson 1976: 220)
b. I ***saw*** {John / *the lamp} ***stand*** on the table. (Akmajian 1977: 440)
c. I ***saw*** the ladder {***leaning*** / ****lean***} against the side of the house. (Kirsner and Thompson 1976: 220)
d. I ***saw*** the glasses {***lying*** / ****lie***} on the bed. (Hamawand (2002: 319)
e. I ***saw*** the lamp {***standing*** / ?***stand***} in the corner. (Pizer 1994: 39)
f. I ***saw*** a statute {***standing*** / ****stand***} on the corner. (Seki 1989: 93)
g. He ***saw*** a portrait of Sapir {***hanging*** / ****hang***} on the wall. (ibid.)

(74) a. I ***had*** Bill {***leaning*** / ***lean***} against the side of the house. (Inoue 1983a: 93)
b. I ***had*** the ladder {***leaning*** / ****lean***} against the side of the house. (ibid.)

According to Kira (2006: 46; 2018: 192-193), the bare infinitival complement implies spontaneous movement and spontaneous change beyond the completion of the perceptual event. Therefore, when the logical subject of the complement is animate, both the bare infinitive and present participle can be used, as in (73a). However, in the case of inanimate logical subjects having a feature of movability, the spontaneity is not allowed, and the bare infinitival complement is ungrammatical, as shown in (73b-g). Therefore, the choice of the present participles, signifying the temporary state, is obligatory when the logical subjects are inanimate (cf. Kirsner and Thompson (1976: 219f) and Hamawand (2002: 319)). According to Pizer (1994: 339), the bare infinitival complement in (73e) can be grammatical only in the special case where the light in (73e) is a motorized luminaire running around a room and is observed to be temporarily stationary (and then start moving again) in a corner of the room.

In 1.2.2 and 3.1.1, we have confirmed that the similarity between the bare infinitival complements of perception verbs and the simple past tense, and the similarity between the present participial complements of perception verbs and the progressive form. In addition to these similarities, the relationship between the logical subjects and the use of the non-finite verbs in (73) is similar to the relationship between the main clause subject and the use of the simple present (past) tense and progressive form. As shown in the following examples, when the positional verbs are used in the simple present tense, as in (77), restrictions are imposed on the choice of subject and verbal form, unlike the other examples.

(75) a. The girl ***lies*** on the bed. (Yasui 1978: 249)
b. Bill ***leaned*** against the side of the house. (Declerck 1981: 97)
c. I ***lay*** there for a long time thinking these horrid thoughts.
(R. Dahl, *Kiss Kiss*; Kashino 1999: 128)

(76) a. The girl ***is lying*** on the bed. (Yasui 1978: 249)
b. Bill ***was leaning*** against the side of the house. (Declerck 1981: 97)
c. Sarah Hardins ***was lying*** in mud, too tired to move.
(J. McAlpin, *The Lost World*; Kashino 1999: 128)

(77) a. *Your cap ***lies*** in the passage. (Recktenwald 1975: 28)
b. *The ladder ***leaned*** against the side of the house. (Declerck 1981: 97)
c. ?The glasses ***lie*** on the bed. (Yasui 1978: 249)

(78) a. The glasses ***are lying*** on the bed. (Yasui 1978: 249)
b. The ladder ***was leaning*** against the side of the house. (Declerck 1981: 97)
c. Your cap ***is lying*** in the passage. (Recktenwald 1975: 28)

In EEBO, the number of the examples considered to be ungrammatical in Present-Day English as in (72) is almost the same as that of the present participles of positional verbs co-occurring with the inanimate subjects, which are acceptable in Present-Day English, as shown in Table 1 (in this table, shading indicates the number of the examples that are not acceptable in Present-Day English).

Table 1. Co-occurrence of Inanimate Subjects [movable] and Non-finite Verbs of Positional Verbs in the Complements of the Perception Verb *SEE* in EEBO

	stand	lie	hang	TOTAL
Inf	30	66	45	141
-ing	25	78	37	140

The distribution of the shading examples in Table 1 is illustrated in Table 2 and the existence of these instances was confirmed until the end of the 17th century. Lowrey (2014: 47) cites the existence of the bare infinitival complements of *stand* and *lie* for imperfectivity, which existed until the end of the 18th century. Note that the figures in parentheses in Table 2 are per million words.

Table 2. Distribution of '*SEE + Inanimate Subject* [*movable*] + *Bare Infinitive of the Positional Verbs*' in EEBO

15c	16c	17c	TOTAL
1 (0.16)	37 (0.29)	103 (0.17)	141 (0.19)

In addition to these examples, in EEBO, instances of the use of the inanimate subject having a feature of non-movability with the bare infinitive of the positional verbs were attested, as shown in (79).

(79) a. whensoeuer wee ***see*** <u>the church</u> ***stand*** in neede of our helpe, (EEBO. 1583)
b. you shall ***see*** <u>a castle</u> ***stand*** at the foote of the hill then you come to the Towne of santos, (EEBO. 1625)
c. and ***sees*** <u>the land</u> ***lye*** faire before her: (EEBO. 1615)
d. when a man ***sees*** <u>a mountain</u> ***lye*** before him, (EEBO. 1656)

These examples are not acceptable in Present-Day English, as seen in (80).

(80) a. !We ***saw*** <u>Rome</u> ***stand*** on the Tiber. (Gisborne 2010: 206)
b. *We ***saw*** there ***stand*** <u>a giant monument</u>. (Felser 1999: 170)

This is because stative events cannot be viewed as the completed events with the end-points, as shown in (81) (cf. Kira (2006: 46)).

(81) a. *We ***saw*** dinosaurs ***love*** kelp. (Felser 1999: 52)
b. *I ***saw*** John ***own*** a house. (Miller 2002: 245)
c. *We ***saw*** John ***know*** the answer. (ibid.)
d. *Mary ***saw*** John ***resemble*** his father. (Moltmann 2013: 296)

Although EEBO had only a small number of the examples prior to the 17th century, 62 cases of the inanimate subject with such a non-movable feature co-occurring with the bare infinitive of positional verbs in the complement of the perception verb *see* were detected. Note that the figures in parentheses in Table 3 are per million words.

Table 3. Distribution of '*SEE + Inanimate Subject* [*non-movable*] + *Bare Infinitive of Positional Verbs*' in EEBO

15c	16c	17c	TOTAL
1 (0.16)	12 (0.09)	49 (0.08)	62 (0.08)

Furthermore, in EEBO, there are 41 examples of this type of the logical subjects with the present participle of the positional verbs, as in (82). Note that the figures in parentheses in Table 4 are per million words.

(82) a. i ***saw*** this village ***standing*** with a great number of people, (EEBO. 1588)
b. and then you shall ***see*** a church ***standing*** vpon a hill which is called saint bent, (EEBO. 1625)
c. you shall presently ***see*** the islands ***lying*** at the end of the riffe of lamon, (EEBO. 1598)
d. thou shalt take this for a warning that if in 8 degrees and a halfe thou ***see*** land ***lying*** all flat, (EEBO. 1600)

Table 4. Distribution of '*SEE + Inanimate Subject* [*non-movable*] + *Present Participle of Positional Verbs*' in EEBO

15c	16c	17c	TOTAL
0 (0)	9 (0.07)	32 (0.05)	41 (0.05)

However, according to this study's informant survey, these examples are not acceptable in Present-Day English, as in (83) (cf. Muraoka (2022a: 6)).[11]

(83) a. *We ***saw*** the church ***standing*** on the hill. (Censored.)
b. *I ***saw*** the Statue of Liberty ***standing*** on Bedloe's Island. (Censored.)

The linguistic fact that positional verbs in (84) cannot be the progressive form, demonstrates that the present participle of positional verbs following inanimate logical subjects having the feature of non-movability in (82) does not represent the same aspectual property of imperfectivity or incompletion as in Present-Day English (cf. Allen (1966: 34)).

(84) a. John's house {sits / ***is sitting***} at the top of a hill. (Dowty 1975: 582)
b. New Orleans {lies / ***is lying***} at the mouth of the Mississippi River. (ibid.)
c. London {lies / ***is lying***} on the Thames. (Recktenwald 1975: 28)
d. The new office building {stands / ***is standing***} at the corner of 5th Avenue and 47th street. (Kira 2018: 193-194)

As for the acceptability of (84), Smith (1991: 33) states that when positional verbs such as *lie, sit*, and *hang* are used in the progressive form, they denote the resultative state of events and, according to Dowty (1979: 174-175), restrictions are imposed on the subject of the progressive form, often depending on whether the subject is movable or not. Kashino (1999: 128) also states that because this kind of the progressive form indicates temporality, in which the subject is not in place forever, the noun (phrase) that serves as the subject must be something that can move by itself, such as a person, or something that can be moved by human intervention, such as an object – a hat or a newspaper. In addition, when the subject is something that normally does not move, such as a building, the positional verbs cannot be used in the progressive form; even though the subject does not move, the temporality denoted by the progressive form implies that the subject will eventually leave its position (cf. Kashino (1999: 128)). However, these progressive forms are often found in EEBO, as shown in (85).

(85) a. that temple which ***was standing*** in the time of our sauiour was the same that zerobabel and the iewes built after their returne from babylon: (EEBO. 1613)
b. Ierusalem then ***was standing***, here it is tuined and lyeth unbuilt, unmeasured, (EEBO. 1620)
c. a mountaine ***is lying*** vpon him, and hee feeleth it not: (EEBO. 1616)

d. <u>these lands</u> ***are lying*** beyond a river called tachii, and beyond that famous wall which bound both empires, (EEBO. 1679)

Thus, expressions such as (82) do not have the same non-complete aspectual properties as in Present-Day English because they should not be interpreted as the progressive meaning. The examples of (79), (82) and Table 1 can be summarized as shown in Table 5 (in this table, the shaded components represent those that are ungrammatical in Present-Day English).

Table 5. Distribution of '*SEE + Inanimate Subject* [±*movable*] + *Non-finite Verbs of Positional Verbs*' in EEBO

	stand		lie		hang	
	movable	non-movable	movable	non-movable	movable	non-movable
Inf	30	31	66	29	45	2
-ing	25	23	78	13	37	5

From this table, the ungrammatical constructions in Present-Day English can be outlined for each period, as shown in Table 6. Note that the figures in parentheses in Table 6 are per million words.

Table 6. Distribution of '*SEE + Inanimate Subject* [±*movable*] + *Non-finite Verbs of Positional Verbs*' Detected in EEBO which are Ungrammatical in Present-Day English

15c	16c	17c	TOTAL
2 (0.31)	58 (0.46)	184 (0.30)	244 (0.32)

Furthermore, this paper conducted a survey of other diachronic corpora, and found the following results in the PPCME2, PPCEME and PPCMBE. A few cases were found in Middle English and Early Modern English, but none was detected in Late Modern English, as in Table 7 (in this table, the shaded components represent those that are ungrammatical in Present-Day English).

Table 7. Distribution of '*SEE* + *Inanimate Subject* [±*movable*] + *Non-finite Verbs of Positional Verbs*' in PPCME2, PPCEME and PPCMBE

		Positional Verbs	
		Bare Infinitive	Present Participle
PPCME2	Movable	3	0
	Non-movable	1	0
PPCEME	Movable	3	3
	Non-movable	0	0
PPCMBE	Movable	0	0
	Non-movable	0	0

For these examples, perhaps due to the small number of words and works in the corpora, this survey was only able to find examples in the text by the same author in Middle English, while examples in Modern English were mainly identified from the English Bibles, as shown in (86) and (87).

(86) a. And by adventure and grace he ***saw*** hys swerde ***ly*** on the erthe $naked, where in the pomell was a rede crosse and the sygne of the crucifixe $therin,
(CMMALORY, 669. 4953)

b. And than he ***sawe*** a fayre swerde ***lye*** by the dede knyght,
(CMMALORY, 203. 3285)

c. and he ***sawe lye*** on the grounde a large feaute of bloode.
(CMMALORY, 201. 3216)

d. and ***sawe*** the towres ***stand*** ful of ladyes. (CMMALORY, 68. 2320)

(87) a. And whenne the husbande lokyd vp and ***sawe*** the Potte ***stande*** there on hyght he sayde thus. (MERRYTAL-E1-H, 115. 285)

b. and ***sawe*** the lynnen clothes ***lye***, and the napkyn that was aboute his heed, not lyinge with the lynnen clothe, but wrapped togeder in a place by it selfe.
(TYNDNEW-E1-P1, 20, 1J. 657)

c. and ***seeth*** the linnen clothes ***lie***, 7 And the napkin that was about his head, not lying with the linnen clothes , but wrapped together in a place by it selfe.
(AUTHNEW-E2-P1, 20, 1J. 932)

Similar cases were also investigated by using ARCHER, but no corresponding cases were detected, except for (88). Moreover, due in part to the small number of words

recorded in ARCHER, the examples which are acceptable in Present-Day English are also few, as in Table 8 (in this table, the shaded components represent those that are ungrammatical in Present-Day English).

(88) ***seeing*** several Papers ***lie*** before him, (ARCHER. 1692cong_f2b)

Table 8. Distribution of '*SEE + Inanimate Subject* [±*movable*] + *Non-finite Verbs of Positional Verbs*' in ARCHER

		Positional Verbs	
		Bare Infinitive	Present Participle
17c	Movable	1	0
	Non-movable	0	0
18c	Movable	0	2
	Non-movable	0	0
19c	Movable	0	2
	Non-movable	0	0
20c	Movable	0	7
	Non-movable	0	0

In COHA, while few cases were detected which are considered ungrammatical in Present-Day English, as in (89), (90) and (91), the present participial complements with the logical subjects which have the movable feature are dominant, as shown in Table 9. Note that the figures in parentheses in Table 9 are per million words.

(89) a. I've ***seen*** a swelling rose-bud ***hang*** Upon its parent stem, (COHA. 1840. FIC)
b. I never ***saw*** a vessel ***lie*** closer to the wind, (COHA. 1855. FIC)
c. Between the fifth and twentieth of October I ***see*** the barrels ***lie*** under the trees. (COHA. 1862. FIC)
d. He swung about just in time to ***see*** a big sedan ***stand*** on its nose and somersault into the opposite ditch with a rending of wood body (COHA. 1930. FIC)

(90) a. I have ***seen*** the trees ***lean*** together and rustle their leaves in whisperings of love. (COHA. 1881. FIC)
b. An empress, brave and loyal, I ***see*** the watchful city ***stand***, With aspect

sternly royal; (COHA. 1882. FIC)

c. The Charter Oak. I seem to ***see*** the old tree ***stand***, Its sturdy, giant form A spectacle remembered, (COHA. 1886. FIC)

d. I shall soon expect to ***see*** the earth ***stand*** still and roll backwards. (COHA. 1894. FIC)

(91) a. In a little while you ***see*** a huge pile ***standing*** back from the road on the left, (COHA. 1866. MAG)

b. and she peeped out to ***see*** the huts ***standing*** in a green spot on the top of the mountain. (COHA. 1908. FIC)

c. You'll ***see*** little lakes ***lying*** in the bosom of the hills, (COHA. 1913. FIC)

d. it's good to ***see*** the stadium ***standing***. (COHA. 1989. NEWS)

Table 9. Distribution of '*SEE + Inanimate Subject* [±*movable*] + *Non-finite Verbs of Positional Verbs*' in COHA

		Positional Verbs	
		Bare Infinitive	Present Participle
19c	Movable	6 (0.05)	76 (0.59)
	Non-movable	4 (0.03)	8 (0.06)
20c	Movable	2 (0.007)	164 (0.6)
	Non-movable	1 (0.004)	19 (0.07)
21c	Movable	0 (0)	23 (0.33)
	Non-movable	0 (0)	1 (0.01)

These linguistic facts suggest that the aspectual differences of non-finite verbs in the complements of perception verbs were ambiguous, at least in Early Modern English, and that the aspectual properties seen in Present-Day English emerged after Early Modern English and were established in Late Modern English, along with the grammaticalization of the progressive forms.

Furthermore, in EEBO, certain cases use the stative verbs in the complements of perception verbs, such as (92) and (93).

(92) a. but wee shall ***see*** him ***have*** more grace, (EEBO. 1635)
b. he was absolutely mine and i was ambitious to ***see*** him ***have*** the empire, (EEBO. 1677)

(93) a. vvhen they doe ***see*** a man ***resemble*** the picture of a Villaine: (EEBO. 1611)
b. but if you cast it into water you shal ***see*** it ***resemble*** the soft, (EEBO. 1615)
c. for the more they looked upon aronces the more they ***saw*** him ***resemble*** the king porsenna, (EEBO. 1678)
d. if she ***see*** it ***resemble*** the father, (EEBO. 1683)

In Present-Day English, as shown in (81), the use of the stative verbs in the bare infinitival complement of the perception verbs cannot be grammatical, because the stative events cannot be viewed as the completed events with the end-points (cf. Kira (2006: 46)). In EEBO, the stative verbs in the present participial complements of perception verbs were also found, as shown in (94) and (95).

(94) a. and i ***saw*** a beast ***having*** parall: (EEBO. 1664)
b. at magdeburg i did ***see*** a young-gentleman ***hauing*** all his fingers loaded with rings, (EEBO. 1617)
c. he should ***haue seen*** many soldiers ***hauing*** their legges eschiomened by reason of the colde, (EEBO. 1617)
d. i ***saw*** an angel ***hauing*** the key of the bottomlesse pit: (EEBO. 1619)
e. we neuer ***saw*** any woman ***hauing*** the flowres: (EEBO. 1625)

(95) a. neither haue i ***seene*** any figure ***resembling*** this plant: (EEBO. 1633)
b. likewise we ***saw*** others ***resembling*** great lizards, (EEBO. 1653)
c. have i not ***seen*** a face ***resembling*** this? (EEBO. 1655)
d. and i then expected to ***see*** a revolution ***resembling*** theirs (EEBO. 1692)

These stative verbs in the present participial complements are generally unacceptable in Present-Day English, as shown in (96), and even in the progressive form, as shown in (97), except for special cases.[12]

(96) a. *I ***saw*** Tom still ***resembling*** your father. (Declerck 1981: 89)
b. *I ***saw*** her ***recognizing*** her old friend. (Leek and Jong 1982: 111)
c. *We ***saw*** him ***having*** a long nose. (Felser 1999: 74)

(97) a. *Sylvia ***is resembling*** her mother. (Croft 1998: 71)
b. *He ***was knowing*** the answer. (Felser 1999: 74)
c. *John ***is recognizing*** his long-lost brother. (Truswell 2011: 59)

Therefore, the bare infinitival complement and present participial complement of the perception verbs in Modern English displayed ambiguous aspectual properties.

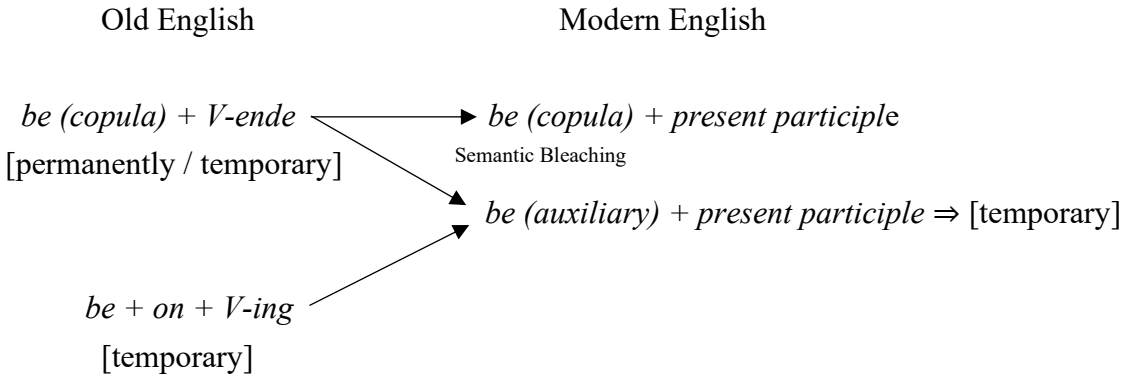
As for the aspectual property of the present participial complement, examples of "be + preposition + doing" are diachronically found in the history of the English language, as shown in (98) (cf. Ono and Nakao (1972: 388) and Ando (2005: 129)).

(98) a. Hie ***wæron*** {***on*** / ***in***} ***hunting***. (= They were in the course of hunting)
(Hashimoto 2005: 152)
b. ac gyrstandæg ic ***wæs on hunting***.
'but yesterday I was at hunting' (Ælfric's Colloquy 69. Ando 2002: 100)

These prepositions were eventually contracted to *a* and finally disappeared completely, as in (99) (cf. Vlach (1981: 286-288)) and the progressive forms in Modern English seem to have absorbed these expressions, as shown in Figure 7. Examples denoting this process are found in the English Bibles, as in (100) and Hebrews 11: 21.

(99) a. John ***is*** {***on*** / ***at***} ***hunting***. (cf. Vlach 1981: 286)
b. John ***is a-hunting***. (ibid.)
c. John ***is hunting***. (ibid.)

Figure 7. Semantic Change of Progressive Forms



(Hosaka 2014: 109)

(100) a. And as he ***was*** yet ***a coming***, the devil threw him down, and tare him. And Jesus rebuked the unclean spirit, and healed the child, and delivered him again to his father. (Authorized Version. Luke 9: 42)

b. While he ***was coming***, the demon dashed him to the ground in convulsions. But Jesus rebuked the unclean spirit, healed the boy, and gave him back to his father. (New Revised Standard Version. Luke 9: 42)

In addition, such examples occur in the complements of perception verbs (cf. Onions (1904), Stockwell et al. (1973)), as in (101) and they are found especially in novels from the 19th century, as shown in (102) and (103).

(101) a. I ***saw*** him {***in falling*** / ***a-falling***}. (Onions 1904: 119)

b. I ***saw*** him ***at working***. (Stockwell et al. 1973: 567)

(102) a. I ***see*** her ***a kissin'*** of him again! (C, Dickens. *Mr. Wardle's Servant Joe*)

b. Wen I ***see*** him ***a-layin'*** so stritched out just nowm I wished he could have heard me tell me so. (C, Dickens. *Bleak House*)

c. Next time your aunt wants to throw her money into the gutter I hope as she'll ask me to come and ***see*** her ***a-doing*** of it. (F, H, Darwin. *Bushes & Briars*)

(103) a. And I ***heard*** a feller ***a talkin'*** about it yesterday. (COHA. 1887. FIC)

b. to set on the piazzas at Saratoga, and ***see*** the folks ***a goin'*** past. (COHA. 1887. FIC)

c. ***See*** the carriages ***a goin'*** this way, and ***a goin'*** that way;

(COHA. 1887. FIC)

d. i nearly died laffing to ***hear*** Beany ***a rattling*** round on the sidewalk.
(COHA. 1902. FIC)

e. Don't ye ***hear*** the waves ***a comin'*** in? (COHA. 1904. FIC)

f. BUT THEN YOU NEVER ***SAW*** A CHINAMAN ***A SHAKING***
(COHA. 1985. FIC)

Visser (1973: 2368) states that such examples were quite common until the end of the 17th century. In EEBO, some instances of "*preposition* + *doing*" in the complement of the perception verbs were found as in (104) and Table 10. Note that the figures in parentheses in Table 10 are per million words.

(104) a. we were those persons that both ***sawe*** him ***a dooyng***, (EEBO. 1548)

b. although she should ***see*** a storm ***in coming***: (EEBO. 1658)

c. and that you warn us to come and acquaint you as soon as we ***see*** the enemy ***a coming*** a far off, (EEBO. 1693)

d. i was very desirous to have ***seen*** the doctor ***at leaving*** dublin (EEBO. 1699)

Table 10. Distribution of '*SEE + NOUN + Preposition + Present Participle*' in EEBO

15c	16c	17c
0 (0)	8 (0.06)	47 (0.08)

Besides, these examples cannot be found in PPCMBE and ARCHER. This suggests that the present participle in the complements of perception verbs, like the progressive forms, developed in Late Modern English by absorbing these prepositional structures.

Finally, in Present-Day English, the occurrence of the *be* + *past participle* in the bare infinitival complement of the perception verbs is unacceptable, as demonstrated in (105a), whereas a past participial complement, present participial complement (*being* + *-en*) and *get* + *past participle* in the bare infinitival complement are grammatical, as shown in (105b-d).[13]

(105) a.*I ***saw*** him ***be rejected***. (Bolinger 1974: 69)

b. I ***saw*** the children ***being beaten*** by their rivals. (Palmer 1987[2]: 199)

c. I ***saw*** the children ***beaten*** by their rivals. (ibid.)

d. I ***saw*** him ***get rejected***. (Bolinger 1974: 69)

This difference in acceptability as in (105a) and (105d) may be attributed to the difference between the dynamic passive and stative passive. As mentioned above, the rise of stative verbs in the bare infinitival complements of perception verbs cannot be grammatical, because stative events cannot be viewed as completed events with end-points (cf. Kira (2006: 46)). In EEBO, however, a number of the examples of "*see NP be + past participle*" such as (105a) were detected as in (106), which are not acceptable in Present-Day English.

(106) a. to ***see*** theselues ***be reued*** of yt beuty, (EEBO. 1567)
b. goe downe and ***see*** breakfast ***be prouided***: (EEBO. 1608)
c. boy, ***see*** all doores ***be shut***, that none approch vs, on this part of the house: (EEBO. 1611)
d. we ***see*** some men ***be saved***, therefore were it so decreed; (EEBO. 1650)

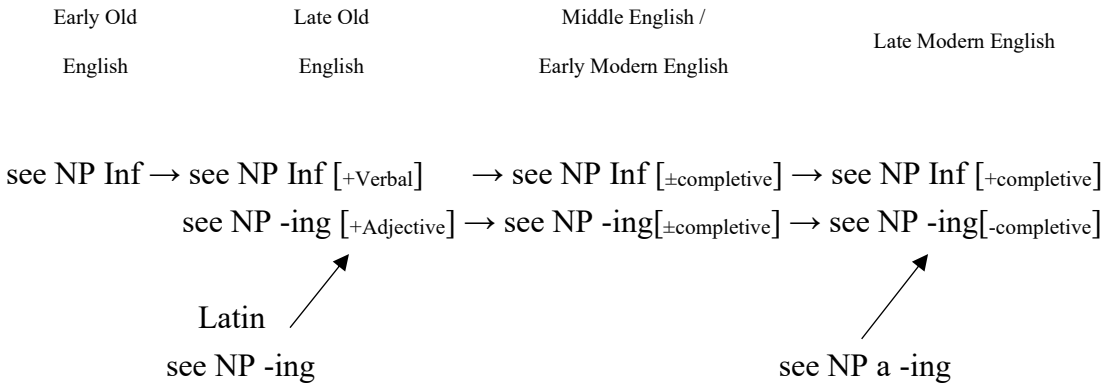
Furthermore, in EEBO, "*see NP be + past participle*," which is not acceptable in Present-Day English, was discovered more often than "*see NP being + past participle*" which is considered grammatical in Present-Day English. Additionally, the (un)acceptability seen in (105a-b) is reversed, as in Table 11.

Table 11. Distribution of '*SEE + NOUN + be(ing) + Past Participle*' in EEBO

	15c	16c	17c	TOTAL
see NP be + past participle	3	33	170	206
see NP being + past participle	0	9	32	41

These linguistic facts suggest that the aspectual properties of the bare infinitive and present participle in the complements of perception verbs were unestablished in Early Modern English and that the (in)complete aspectual properties emerged at the same time as the grammaticalization of the progressive forms, established in Late Modern English, as illustrated in Figure 8.

Figure 8. Diachronic Changes in Complements of Perception Verbs



3.2.4. Decline of the *TO*-infinitival Complement for the Active Forms of Perception Verbs

The *to*-infinitival complement of perception verbs was also found in EEBO, as shown in (107), but these expressions cannot be used in Present-Day English, as in (108).

(107) a. what pleasure can we conceive the almighty should take in ***seeing*** us ***to destroy*** his creatures for his sake? (EEBO. 1676)
b. if he should ***see*** him ***to swarue*** from the limites of Iustice, the conestable of chester: (EEBO. 1577)
c. he could not ***see*** him ***to give*** him any assistance: (EEBO. 1689)

(108) a. *They ***saw*** her ***to represent*** the other tradition. (Bolinger 1975[2]: 399)
b. *We ***saw*** John ***to steal*** the car. (Gee 1977: 480)
c. *Bill ***saw*** Mary ***to eat***. (Nunes 1995: 359)
d. *We ***saw*** Kim ***to leave*** the bank. (Huddleston and Pullum 2002: 1237)

According to the OED (*s.v. see*, *v.*1a(b); *hear*, *v.* 3a), when in the active form of the perception verbs, *to* is omitted but in early use exceptions are not uncommon (cf. Mustanoja (1960: 529)). Furthermore, Jespersen (1940: 280) states that the *to*-infinitive was rare in the complement for the active form of the perception verbs and that the *to*-infinitive was chiefly used when the perception verb *see* does not indicate the immediate perception but the inference. However, did the *to*-infinitival complement in Modern English really indicate the inference? The following samples from the English Bibles can pose counterexamples to Jespersen's statement. In the Wycliffe Bible Early Version, the

Wycliffe Bible Late Version, the Geneva Bible and the Authorized Version, which were written in Middle English and Early Modern English, the *to*-infinitives are used as follows, but in the New Revised Standard Version, which was written in Present-Day English, some examples are interpreted as the past participial complement and present participial complement, which indicate direct perception, as in the following examples. However, the (*for*) *to*-infinitive in (112a) is interpreted as the *that*-clause in (112g), which indicates indirect perception (cf. Hornby (1975^2: 65)).

(109) a. If þou ***seest*** þe asse of þi broþer, or oxe, ***to haue faln*** in þe weie, þow shalt not dispise, but vndur heeue wiþ hym.
(Wycliffe Bible Early Version. Deuteronomy 22: 4)

b. If thou seest that the asse, ethir oxe of thi brothir felde in the weye, thou schalt not dispise, but thou schalt `reise with hym.
(Wycliffe Bible Late Version. Deuteronomy 22: 4)

c. Thou shalt not ***see*** thy brothers asse nor his oxe ***fal*** downe by the way, and withdrawe thy selfe from them, but shalt lift them vp with him.
(Geneva Bible. Deuteronomy 22: 4)

d. Thou shalt not ***see*** thy brother's ass or his ox ***fall*** down by the way, and hide thyself from them: thou shalt surely help him to lift them up again.
(Authorized Version. Deuteronomy 22: 4)

e. Thou shalt not ***see*** thy brother's ass or his ox ***fallen*** down by the way, and hide thyself from them: thou shalt surely help him to lift them up again.
(Revised Version. Deuteronomy 22: 4)

f. You shall not ***see*** your brother's ass or his ox ***fallen*** down by the way, and withhold your help from them; you shall help him to lift them up again.
(Revised Standard Version. Deuteronomy 22: 4)

g. You shall not ***see*** your neighbor's donkey or ox ***fallen*** on the road and ignore it; you shall help to lift it up.
(New Revised Standard Version. Deuteronomy 22: 4)

(110) a. Forsoþe þat þe kyng ***saw3*** þe waker and hooly ***for to cum*** doun fro heuen, and ***for to saye***, Kitte 3e doun þe tree, and scatre 3e it, neþelese leue þe buriownyng of rootys þerof in erþe, and be he bounden in yren and brasse, and in erbis wiþ out forþ, and dew of heuen be it spreyn to gydre, and wiþ wylde beestis be his mete, til seuen tymes be chaungid vpon hym;
(Wycliffe Bible Early Version. Daniel 4: 23)

b. Sotheli that the kyng ***siy*** a wakere and hooli ***come*** doun fro heuene, and ***seie***, Hewe ye doun the tree, and distrie ye it, netheles leeue ye the seed of rootis therof in erthe, and be he boundun with irun and bras, in erbis with out forth, and be he bispreynt with the deew of heuene, and his mete be with wielde beestis, til seuene tymes be chaungid on hym;

(Wycliffe Bible Late Version. Daniel 4: 20)

c. Where as the King sawe a watchman, and an holy one, that came downe from heauen, and said, Hew downe the tree and destroy it, yet leaue the stumpe of the rootes thereof in the earth, and with a bande of yron and brasse binde it among the grasse of the fielde, and let it be wette with the dewe of heauen, and let his portion be with the beastes of the fielde, till seuen times passe ouer him, (Geneva Bible. Daniel 4: 20)

d. And whereas the king ***saw*** a watcher and an holy one ***coming*** down from heaven, and ***saying***, Hew the tree down, and destroy it; yet leave the stump of the roots thereof in the earth, even with a band of iron and brass, in the tender grass of the field; and let it be wet with the dew of heaven, and let his portion be with the beasts of the field, till seven times pass over him;

(Authorized Version. Daniel 4: 23)

e. And whereas the king ***saw*** a watcher and an holy one ***coming*** down from heaven, and ***saying***, Hew down the tree, and destroy it; nevertheless leave the stump of the roots thereof in the earth, even with a band of iron and brass, in the tender grass of the field; and let it be wet with the dew of heaven, and let his portion be with the beasts of the field, till seven times pass over him;

(Revised Version. Daniel 4: 23)

f. And whereas the king ***saw*** a watcher, a holy one, ***coming*** down from heaven and ***saying***, 'Hew down the tree and destroy it, but leave the stump of its roots in the earth, bound with a band of iron and bronze, in the tender grass of the field; and let him be wet with the dew of heaven; and let his lot be with the beasts of the field, till seven times pass over him';

(Revised Standard Version. Daniel 4: 23)

g. And whereas the king ***saw*** a holy watcher ***coming*** down from heaven and ***saying***,'Cut down the tree and destroy it, but leave its stump and roots in the ground, with a band of iron and bronze, in the grass of the field; and let him be bathed with the dew of heaven, and let his lot be with the animals of the field, until seven times pass over him'—

(New Revised Standard Version. Daniel 4: 23)

(111) a. Þerfore whanne þei hadden rowid as fyue and twenty furlongis or þritty, þei ***seen*** Jhesu walkinge on þe see, and ***to be maad*** next to þe boot; and þei dredden. (Wycliffe Bible Early Version. John 6: 19)

b. Therfor whanne thei hadden rowid as fyue and twenti furlongis or thretti, thei ***seen*** Jhesus walkynge on the see, and ***to be*** neiy the boot; and thei dredden. (Wycliffe Bible Late Version. John 6: 19)

c. And when they had rowed about five and twenty, or thirty furlongs, they ***saw*** Jesus walking on the sea, and ***drawing*** near unto the ship: so they were afraid. (Geneva Bible. John 6: 19)

d. So when they had rowed about five and twenty or thirty furlongs, they ***see*** Jesus walking on the sea, and ***drawing*** nigh unto the ship: and they were afraid. (Authorized Version. John 6: 19)

e. When therefore they had rowed about five and twenty or thirty furlongs, they ***behold*** Jesus walking on the sea, and ***drawing*** nigh unto the boat: and they were afraid. (Revised Version. John 6: 19)

f. When they had rowed about three or four miles, they ***saw*** Jesus walking on the sea and ***drawing*** near to the boat. They were frightened, (Revised Standard Version. John 6: 19)

g. When they had rowed about three or four miles, they ***saw*** Jesus walking on the sea and ***coming*** near the boat, and they were terrified. (New Revised Standard Version. John 6: 19)

(112) a. And þei gessiden `him to be turned into swellinge, and sudenly `to fallinge, and `for to deie. Forsoþe `hem longe abidinge, and ***seynge*** no þing of yuel ***`for to be don*** in him, þei turnynge to gidere, seiden `him for to be God. (Wycliffe Bible Early Version. Acts 28: 6)

b. And thei gessiden that he schulde be turned `in to swellyng, and falle doun sudenli, and die. But whanne thei abiden longe, and sien that no thing of yuel was don in him, thei turneden hem togider, and seiden, that he was God. (Wycliffe Bible Late Version. Acts 28: 6)

c. Howbeit they wayted whe he should haue swolne, or fallen downe dead suddenly: but after they had looked a great while, and ***sawe*** no inconuenience ***come*** to him, they changed their mindes, and said, That he was a God. (Geneva Bible. Acts 28: 6)

d. Howbeit they looked when he should have swollen, or fallen down dead suddenly: but after they had looked a great while, and ***saw*** no harm ***come*** to him, they changed their minds, and said that he was a god.

(Authorized Version. Acts 28: 6)

e. But they expected that he would have swollen, or fallen down dead suddenly: but when they were long in expectation, and ***beheld*** nothing amiss ***came*** to him, they changed their minds, and said that he was a god.

(Revised Version. Acts 28: 6)

f. They waited, expecting him to swell up or suddenly fall down dead; but when they had waited a long time and ***saw*** no misfortune ***come*** to him, they changed their minds and said that he was a god.

(Revised Standard Version. Acts 28: 6)

g. They were expecting him to swell up or drop dead, but after they had waited a long time and saw that nothing unusual had happened to him, they changed their minds and began to say that he was a god.

(New Revised Standard Version. Acts 28: 6)

(113) a. He þat `shal haue þe substaunse of þis world, and `shal ***see*** his broþer ***for to haue*** nede, and `shal close his entrayles fro him, hou dwelliþ þe charite of God in him? (Wycliffe Bible Early Version. 1 John 3: 17)

b. He that hath the catel of this world, and seeth that his brothir hath nede, and closith his entrailis fro hym, hou dwellith the charite of God in hym?

(Wycliffe Bible Late Version. 1 John 3: 17)

c. And whosoeuer hath this worlds good, and ***seeth*** his brother ***haue*** neede, and shutteth vp his compassion from him, howe dwelleth the loue of God in him?

(Geneva Bible. 1 John 3: 17)

d. But whoso hath this world's good, and ***seeth*** his brother ***have*** need, and shutteth up his bowels of compassion from him, how dwelleth the love of God in him? (Authorized Version. 1 John 3: 17)

e. But whoso hath the world's goods, and beholdeth his brother in need, and shutteth up his compassion from him, how doth the love of God abide in him? (Revised Version. 1 John 3: 17)

f. But if any one has the world's goods and sees his brother in need, yet closes his heart against him, how does God's love abide in him?

(Revised Standard Version. 1 John 3: 17)

g. How does God's love abide in anyone who has the world's goods and sees a brother or sister in need and yet refuses help?
(New Revised Standard Version. 1 John 3: 17)

(114) a. And þe fyueþe aungel song in trumpe; and I ***siȝe*** a sterre ***`for to haue fallen*** doun fro heuen in to erþe; and þe keye of þe pitt of depnesse is ȝouun to him. (Wycliffe Bible Early Version. Revelation 9: 1)

b. And the fyuethe aungel trumpide; and Y say, that a sterre hadde falle doun fro heuene in to erthe; and the keye of the pit of depnesse was youun to it.
(Wycliffe Bible Late Version. Revelation 9: 1)

c. And the fifth Angel blew the trumpet, and I ***saw*** a starre ***fall*** from heauen vnto the earth, and to him was giuen the key of the bottomlesse pit.
(Geneva Bible. Revelation 9: 1)

d. And the fifth angel sounded, and I ***saw*** a star ***fall*** from heaven unto the earth: and to him was given the key of the bottomless pit.
(Authorized Version. Revelation 9: 1)

e. And the fifth angel sounded, and I ***saw*** a star from heaven ***fallen*** unto the earth: and there was given to him the key of the pit of the abyss.
(Revised Version. Revelation 9: 1)

f. And the fifth angel blew his trumpet, and I ***saw*** a star ***fallen*** from heaven to earth, and he was given the key of the shaft of the bottomless pit;
(Revised Standard Version. Revelation 9: 1)

g. And the fifth angel blew his trumpet, and I saw a star that had fallen from heaven to earth, and he was given the key to the shaft of the bottomless pit;
(New Revised Standard Version. Revelation 9: 1)

(115) a. And I ***siȝe*** þre vnclene spirites `in to manere of froggis ***for to go*** out of þe mouþ of þe dragoun, and of þe mouþ of þe beest, and of þe mouþ of þe false prophet. (Wycliffe Bible Early Version. Revelation 16: 13)

b. And Y ***say*** thre vnclene spiritis bi the manner of froggis ***go*** out of the mouth of the dragoun, and of the mouth of the beeste, and of the mouth of the fals prophete. (Wycliffe Bible Late Version. Revelation 16: 13)

c. And I ***sawe*** three vncleane spirits like frogs ***come*** out of the mouth of that dragon, and out of the mouth of that beast, and out of the mouth of that false prophet. (Geneva Bible. Revelation 16: 13)

d. And I ***saw*** three unclean spirits like frogs ***come*** out of the mouth of the dragon, and out of the mouth of the beast, and out of the mouth of the false prophet. (Authorized Version. Revelation 16: 13)

e. And I ***saw coming*** out of the mouth of the dragon, and out of the mouth of the beast, and out of the mouth of the false prophet, three unclean spirits, as it were frogs: (Revised Version. Revelation 16: 13)

f. And I ***saw, issuing*** from the mouth of the dragon and from the mouth of the beast and from the mouth of the false prophet, three foul spirits like frogs; (Revised Standard Version. Revelation 16: 13)

g. And I ***saw*** three foul spirits like frogs ***coming*** from the mouth of the dragon, from the mouth of the beast, and from the mouth of the false prophet. (New Revised Standard Version. Revelation 16: 13)

(116) a. so þat þe cumpanyes wondriden, ***seeynge*** doumbe men ***spekynge***, and crokid ***goynge***, blynd men ***seeynge***; and þei magnyfieden God of Yrael. (Wycliffe Bible Early Version. Matthew 15: 31)

b. so that the puple wondriden ***seynge*** doumbe men ***spekynge***, and crokid ***goynge***, blynde men ***seynge***; and thei magnyfieden God of Israel. (Wycliffe Bible Late Version. Matthew 15: 31)

c. In so much that the multitude wondered, to ***see*** the dumme ***speake***, the maimed whole, the halt ***to goe***, and the blinde ***to see***: and they glorified the God of Israel. (Geneva Bible. Matthew 15: 31)

d. Insomuch that the multitude wondered, when they ***saw*** the dumb ***to speak***, the maimed ***to be*** whole, the lame ***to walk***, and the blind ***to see***: and they glorified the God of Israel. (Authorized Version. Matthew 15: 31)

e. insomuch that the multitude wondered, when they ***saw*** the dumb ***speaking***, the maimed whole, and the lame ***walking***, and the blind ***seeing***: and they glorified the God of Israel. (Revised Version. Matthew 15: 31)

f. so that the throng wondered, when they ***saw*** the dumb ***speaking***, the maimed whole, the lame ***walking***, and the blind ***seeing***; and they glorified the God of Israel. (Revised Standard Version. Matthew 15: 31)

g. so that the crowd was amazed when they ***saw*** the mute ***speaking***, the maimed whole, the lame ***walking***, and the blind ***seeing***. And they praised the God of Israel. (New Revised Standard Version. Matthew 15: 31)

In (117a), the verb *behold* is used with the *to*-infinitival complement, but the verb *see* with the present participial complement is used in the Bibles after the Wycliffe Bible.

(117) a. And ***beholdynge*** Arewne vndurstoode þe kyng and his seruauntis ***to comen*** ouer to hym; and, goon out, he honourde þe kyng, bowid þe cheere into þe erþe; (Wycliffe Bible Early Version. 2 Samuel 24: 20)

b. And Areuna bihelde, and perseyuede, that the kyng and hise seruauntis passiden to hym; (Wycliffe Bible Late Version. 2 Samuel 24: 20)

c. And Araunah looked, and ***sawe*** the King and his seruants ***comming*** towarde him, and Araunah went out, and bowed himselfe before the King on his face to the ground, (Geneva Bible. 2 Samuel 24: 20)

d. And Araunah looked, and ***saw*** the king and his servants ***coming*** on toward him: and Araunah went out, and bowed himself before the king on his face upon the ground. (Authorized Version. 2 Samuel 24: 20)

e. And Araunah looked forth, and ***saw*** the king and his servants ***coming*** on toward him: and Araunah went out, and bowed himself before the king with his face to the ground. (Revised Version. 2 Samuel 24: 20)

f. And when Arau'nah looked down, he ***saw*** the king and his servants ***coming*** on toward him; and Arau'nah went forth, and did obeisance to the king with his face to the ground. (Revised Standard Version. 2 Samuel 24: 20)

g. When Araunah looked down, he ***saw*** the king and his servants ***coming*** toward him; and Araunah went out and prostrated himself before the king with his face to the ground. (New Revised Standard Version. 2 Samuel 24: 20)

Thus, examples of the *to*-infinitival complement for the active form of the perception verbs are also found in Middle English and Modern English, but they are interpreted as present participial complements, which indicate direct perception. From these linguistic facts, it is assumed that Jespersen's statement is partially wrong and that the *to*-infinitival complement could also indicate direct perception diachronically.

Why, then, did the *to*-infinitival complement, which is not acceptable in Present-Day English, exist diachronically? This problem can be attributed to the semantic ambiguity of the non-finite verbs in Middle English and Modern English. In other words, the semantic difference was unclear not only in the case of the bare infinitive and present participle, but also in the case of the bare infinitive and *to*-infinitive. Therefore, it is assumed that the use of non-finite verbs was inconsistent, as found in the examples from the English Bibles.

The possibility that the semantic differences between the bare infinitive and *to*-infinitive were ambiguous is confirmed in the causative verbs, as seen in 2.2.2. In (118), *make NP to-Inf* in the Wycliffe Bible Early Version and Late Version (Middle English) is interpreted as *make NP Inf* in the New Revised Standard Version (Present-Day English). On the other hand, *make NP to-Inf* in (119) is interpreted as *cause NP to-Inf*, which also takes the *to*-infinitive as its complement.

(118) a. And he clepide the name of the first gotun sone, Manasses, seiynge, God hath ***maad*** me ***to forȝete*** alle my trauayls, and the hows of my fader;
(Wycliffe Bible Early Version. Genesis 41: 51)

b. And he clepide the name of the firste gendrid sone, Manasses, and seide, God hath ***maad*** me ***to forȝete*** alle my traueilis, and the hous of my fadir;
(Wycliffe Bible Late Version. Genesis 41: 51)

c. And Ioseph called the name of the first borne Manasseh: for God, said he, hath ***made*** me ***forget*** all my labour and al my fathers houshold.
(Geneva Bible. Genesis 41: 51)

d. And Joseph called the name of the firstborn Manasseh: For God, said he, hath ***made*** me ***forget*** all my toil, and all my father's house.
(Authorized Version. Genesis 41: 51)

e. And Joseph called the name of the firstborn Manasseh: For, said he, God hath ***made*** me ***forget*** all my toil, and all my father's house.
(Revised Version. Genesis 41: 51)

f. Joseph called the name of the first-born Manas'seh, "For," he said, "God has ***made*** me ***forget*** all my hardship and all my father's house."
(Revised Standard Version. Genesis 41: 51)

g. Joseph named the firstborn Manasseh, "For," he said, "God has ***made*** me ***forget*** all my hardship and all my father's house."
(New Revised Standard Version. Genesis 41: 51)

(119) a. And the Lord God shal take Irael `to her enemyes, for the synnes of Jeroboam, the which synnede, and ***made*** Irael ***to synne***.
(Wycliffe Bible Early Version. 1 Kings 14: 16)

b. And the Lord God schal bitake Israel to hise enemyes, for the synnes of Jeroboam, that synnede, and ***made*** Israel ***to do synne***.

(Wycliffe Bible Late Version. 1 Kings 14: 16)

c. And he shall giue Israel vp, because of the sinnes of Ieroboam, who did sinne, and ***made*** Israel ***to sinne***. (Geneva Bible. 1 Kings 14: 16)

d. And he shall give Israel up because of the sins of Jeroboam, who did sin, and who ***made*** Israel ***to sin***. (Authorizes Version. 1 Kings 14: 16)

e. And he shall give Israel up because of the sins of Jeroboam, which he hath sinned, and wherewith he hath ***made*** Israel ***to sin***.

(Revised Version. 1 Kings 14: 16)

f. And he will give Israel up because of the sins of Jerobo'am, which he sinned and which he ***made*** Israel ***to sin***."

(Revised Standard Version. 1 Kings 14: 16)

g. He will give Israel up because of the sins of Jeroboam, which he sinned and which he ***caused*** Israel ***to commit***."

(New Revised Standard Version. 1 Kings 14: 16)

As demonstrated in the analysis of the infinitival complement of the causative verbs, it is possible that the *to*-infinitive was used due to phonetic factors. Otsuka (1967: 73-74) states that the perception verbs *see* and *hear* do not take the *to*-infinitival complement today except in the passive form, but in Shakespeare's time they sometimes took the *to*-infinitive in the complement for their active form and the appearance or absence of the *to*-infinitive often depended on the rhythm of the sentence, as shown in (120) (cf. Ono and Ito (2009: 140) and Asao (2019: 215)).

(120) Or díd thou ***sée*** my fríend ***to táke*** his déath?

(Marlowe, *Edward 2*, III. i. 93; Ono and Ito 2009: 140)

According to Ando (1978: 518), who investigated the distribution of the infinitival complements in the perception verb *see* in Marlowe's works, the *to*-infinitives were found in only six out of 55 cases. The following three examples were detected in a study of the distribution of the *to*-infinitival complements of perception verbs in Shakespeare's works. There are also examples that do not necessarily denote the indirect perception. Thus, there seems to have been no semantic factor in the use of infinitives in the complements of perception verbs in Middle English and Modern English.

(121) a. Still losing when I ***saw*** myself ***to win***!

(William Shakespeare. *Sonnet*. 119. 1654)

b. Tranio, I ***saw*** her coral lips ***to move***,

(William Shakespeare. *Taming of the Shrew*. I, 1, 465.)

c. Who ***heard*** me ***to deny*** it or forswear it?

(William Shakespeare. *Comedy of Errors*. V, 1, 1449)

According to Katami (2000: 120), the verb *see* with the bare infinitival complement, or *to*-infinitival complement is found in the prose in Middle English such as Caxton and Malory's works, but it did not indicate mental perception or recognition, and the usage denoting the recognition with these infinitival complements was established after Early Modern English. Besides, Katami (2000: 122) states that no classification by the direct perception or intellectual perception was observed in Middle English and that when modality was incorporated into each complement structure after Early Modern English, the *that*-clause was used for the intellectual perception and the *to*-infinitival complement for the direct perception with a high degree of subjectivity.

A survey of the perception verbs with the *to*-infinitival complements in EEBO detected more *to*-infinitives with the verbs *be* and *have* than with other verbs, as shown in Table 12 (in this survey, a formula of "SEE PRON to _v?i" is used to exclude cases in which the *to*-infinitive modifies the noun immediately preceding it). Note that the figures in parentheses in Table 12 are per million words.

Table 12. Distribution of Verbs Used in the *To*-infinitival Complement of the Perception Verb *SEE*

	15c	16c	17c	TOTAL
BE	1 (0.16)	201 (1.58)	967 (1.56)	1169 (1.55)
HAVE	0 (0)	29 (0.23)	83 (0.13)	112 (0.15)
Other verbs	2 (0.31)	119 (0.93)	508 (0.82)	629 (0.83)

Yamakawa (1963: 84-85) states that the verb *see*, used in the sense of *perceive* or *infer* in Late Modern English, was always used with the *to*-infinitival complement, as shown in (122), when the verb *be* was used in the infinitival complement, just as in Present-Day English usage.[14]

(122) Never tell him what she ***saw*** him ***to be***.

(George Eliot, *Felix Holt* i. ix; Yamakawa 1963: 85)

These linguistic facts suggest that there was no semantic factor in the use of the infinitives in the complements of perception verbs, except for use with the verbs *be* and *have* in the infinitival complements, and we assume that the semantic difference between non-finite verbs appearing in the complements of perception verbs was ambiguous, at least in Early Modern English.

3.2.5. Summary

We have delved into the distribution of non-finite verbs that occur in the complements of perception verbs from Old English to Modern English and scrutinized their aspectuality in each period. In Old English, the present participial complement was used only in limited situations due to Latin influence, and generally the bare infinitival complement was used. Even in Middle English, the use of the present participle was not generalized, and the use of the bare infinitives was observed in many cases. In addition, because of the phonological and morphological ambiguity between infinitives and participles, non-finite verbs that appeared in the complements of perception verbs in Middle English also did not indicate the same aspect as in Present-Day English. The increased use of present participles in the complements of perception verbs in Early Modern English could suggest that the bare infinitival and present participial complements represented the same aspect as in Present-Day English. However, there were many instances of these that are ungrammatical in Present-Day English. In Late Modern English, these instances declined. From these linguistic facts, it is assumed that the non-finite verbs in the complement of the perception verbs obtained the same aspectual and evidential properties as in Present-Day English in Late Modern English.

3.3. Synchronic Analysis on Infinitival Selection in the Complements for the Passive Forms of Perception Verbs

As we have seen in 3.2, in Present-Day English, the perception verbs such as *see* and *hear* take the bare infinitive and the present participle, as seen in (123). The bare infinitive implies perfectivity, whereas present participle implies imperfectivity.

(123) a. I ***saw*** him ***cross*** the road. (From one side to the other.) (Allen 1974[5]: 186)
b. I ***saw*** him ***crossing*** the road. (On the way to the other side.) (ibid.)

The *to*-infinitive is also used in the complement for the active form, as shown in (124), although only with verbs such as *be* and *have*, as in (124c-d). According to Bolinger (1975[2]: 399), Declerck (1991: 490) and Sawada (2016: 51), the *to*-infinitive, when functioning as the complement for the active form of perception verbs, implies the indirect perception or inference based on direct perception.

(124) a. They ***saw*** her ***to be*** the one. (Bolinger 1975[2]: 399)
b. I ***saw*** the house ***to have been repainted***. (Declerck 1991: 490)
c. *They ***saw*** her ***to represent*** the other tradition. (Bolinger 1975[2]: 399)
d. *Bill ***saw*** Mary ***to eat***. (Nunes 1995: 359)

However, as shown in (125), in the complement for the passive form, both the *to*-infinitive and the present participle are used, whereas the bare infinitive is not used.[15] [16] Ono and Ito (2009: 140) point out that phonological factors may have influenced the appearance of the *to*-infinitival complement by using the diachronic data, but they do not explain why the bare infinitive cannot appear in the complement in Present-Day English, as in (125c).

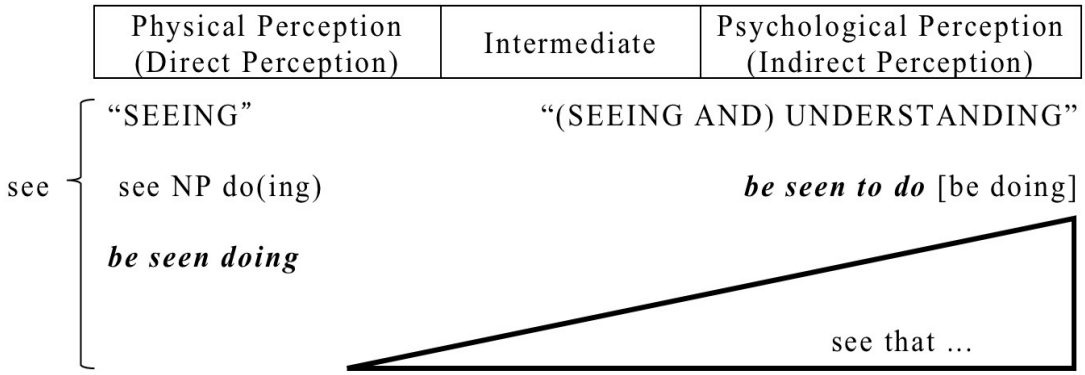
(125) a. The dog ***was seen to cross*** the road. (Gisborne 2010: 122)
b. Carl ***was seen reading*** *Barriers*. (cf. Miller 2002: 253)
c. *The dog ***was seen cross*** the road. (Gisborne 2010: 198)

In light of the examples given above, this study will explore why the bare infinitive does not occur in the complement for the passive form of perception verbs, whereas the *to*-infinitive and present participle do, as in (125a-b).

3.3.1. Indirect Perception

As for the semantic differences in non-finite verbs in the complements between the active and passive forms of the perception verb *see*, Harakawa (1983: 61) summarizes them as follows, stating that *be seen to-Inf* connotes indirect perception.

Figure 8. Semantic Differences of Non-finite Verbs in the Complement of *see* (based on Harakawa (1983: 61))



When addressing the relationship between the complements for the active and passive forms of perception verbs, Palmer (1987[2]: 199) states that the passive form of a perception verb, when followed by the *to*-infinitive, does not have the same meaning as that of the active form followed by the bare infinitive. According to Dixon (2005[2]: 252), the passive form verges on being a description of the state, and the direct perceptual meaning of the active form is weakened in the complement for the passive form of perception verbs. Thus, the word *to* is used to imply indirectness. Additionally, Kuwabara and Matsuyama (2001: 123-124) also argue that no derivational relation can be recognized between the passive form with the *to*-infinitival complement and the active form with the bare infinitival complement, because the logical subject in the complement for the active form is the object of direct perception, whereas the subject in the passive form of the perception verbs is the object of indirect perception.

Now, this study conducts a review of the aspectual properties of the non-finite verbs in the complements for the active and passive forms. As shown in (123), the bare infinitival complement for the active form indicates that the event in the complement is completed and the present participle indicates the incomplete action. Additionally, the *to*-infinitival complement for the active form indicates either indirect perception or an inference based on direct perception, as Declerck (1991: 490) states. On the other hand, Alexander (1988: 302) and Konishi (2006: 574) state that in the complement for the passive form, the *to*-

infinitive also describes a completed action, and the present participle connotes a continuous action, as in (126).

(126) a. They ***were seen to wait*** on the corner. (action completed)
(Alexander 1988: 302)
b. They ***were seen waiting*** on the corner. (action in progress) (ibid.)

Additionally, as for the semantic differences between *be seen to-Inf* and *be seen -ing*, some informants state that both have two slightly different meanings. According to them, whereas *be seen -ing* is literally just a description, *be seen to-Inf* gives a different feeling, like a kind of feeling of skepticism or surprise. For example, if a sentence of "Tom ***was seen to kiss*** Mary" is used even though Tom tells everyone that he doesn't like her, it expresses an exclamation of surprise of the person who saw the event.

According to Higginbotham (1983: 124) and Mittwoch (1990: 121), the *to*-infinitival complement for the passive form of the perception verb *see* such as "John ***was seen to leave***" has only an epistemic interpretation. In other words, it amounts to "somebody saw that John left." Watanuki et al. (1994: 143-144) state that the *to*-infinitive in (126a) implies indirect reporting, meaning "it seems to be…," whereas the present participle, as in (126b), implies direct perception, meaning "I saw the process." The occurrence of the perfect form of the *to*-infinitival complement for the passive form, as in (127), could be the evidence that *be* {*seen / heard*} *to-Inf* implies indirect report or inference.

(127) a. The lawn ***was seen*** by John ***to have been mown***. (Declerck 1983a: 39)
b. From the perspective of those who house the homeless, the building ***was seen to have collapsed***, but in view of the Housing Authority, the building was merely classified as substandard. (Safir 1993: 54)
c. Mary ***was seen to have finished*** her breakfast. (Felser 1999: 32)
d. He ***was seen to have altered*** the figures. (Huddleston and Pullum 2002: 1237)
e. Jane ***was seen to have left***. (Gisborne 2010: 194)

As explained in 3.1.3, the occurrence of the perfect form of the *to*-infinitival complement for the active form is also acceptable because it also implies indirect reporting or inference, as in (128), but the occurrence of the perfect form of the bare infinitival complement for the active form, which indicates direct perception, is not grammatically correct, as in (129).

(128) a. I ***see*** them ***to have arrived***. (Bolinger 1974: 77)
b. I ***saw*** somebody ***to have entered*** the building.
(van der Leek and Jong 1982: 112)
c. Alex ***saw*** Julia ***to have been*** in a hurry when she dressed (because she was wearing her T-shirt inside out). (van der Leek 1992: 13)
d. I ***saw*** the house ***to have been*** repainted. (Declerck 1991: 490)
e. I ***saw*** the library ***to have burned*** down. (Felser 1999: 41)

(129) a. *I don't like to ***see*** people ***have drunk***. (Nakau 1980: 147)
b. *I ***saw*** a great change ***have come*** over him. (Declerck 1981: 86)
c. *John ***saw*** the lawn ***have been mown***. (Declerck 1983a: 39)
d. *John ***saw*** Bill ***have left***. (Hornstein 1990: 154)
e. *We ***saw*** Mary ***have finished*** her breakfast. (Felser 1999: 32)

This is because the perceptual object in the bare infinitival complement for the active form must be perceived directly, and the occurrence of the actions in the main clause and complement must be simultaneous. Therefore, the use of the perfective infinitive (i.e., the perception of the past event) in the bare infinitival complement for the active form is not acceptable, as in (129). On the other hand, regarding the *to*-infinitival complement for the active and passive form, the occurrence of the actions in the main clause and the complement need not be simultaneous, because {*see* / *hear*} *NP to-Inf* and *be* {*seen* / *heard*} *to-Inf* imply indirect perception or inference, as in the case of (127) and (128). Hence, (127) and (128) are grammatically correct.

What is more, the occurrence of *be* + *present participle* is acceptable in the *to*-infinitival complement for the passive form, which indicates the indirect perception or inference, as in (130), and it is also acceptable in the *to*-infinitival complement for the active form which indicates indirect perception or inference, as in (131).

(130) a. He ***was seen to be falling*** over the edge. (Hudson 1971: 177)
b. He ***was seen to be walking*** away. (Palmer 1987[2]: 189)
c. Bill could ***be heard to be talking*** to himself. (Felser 1999: 32)
d. The dog ***was seen to be crossing*** the road. (Gisborne 2010: 228)

(131) a. She ***saw*** him ***to be falling*** over the bridge. (Hudson 1971: 177)
b. He ***saw*** the children ***to be eating*** their lunch. (Felser 1999: 32)

c. John ***saw*** Mary ***to be holding*** a straw up to her cheek.
(cf. Moulton 2009: 139)

d. Mary ***heard*** the teacher ***to be dropping*** a book. (cf. Moulton 2009: 140)

However, it is not acceptable in the bare infinitival complements for the active forms which indicate direct perception, as in (132).

(132) a. *I don't like to ***see*** people ***be drinking***. (Nakau 1980: 147)
b. *I ***saw*** John ***be sleeping***. (Declerck 1981: 91)
c. *We ***saw*** John ***be drawing*** a circle. (Felser 1998: 363)
d. *We ***saw*** Kim ***be leaving*** the bank. (Huddleston and Pullum 2002: 1237)
e. *Jane ***saw*** Peter ***be kissing***. (Gisborne 2010: 209)

Furthermore, the *be + past participle* is acceptable in the *to*-infinitival complement for the passive form which indicates indirect perception or inference, as in (133), and in the *to*-infinitival complement for the active form, which also indicates indirect perception or inference, as in (134).

(133) a. The children ***were seen to be beaten***. (Palmer 1987[2]: 199)
b. The man ***was seen to be knocked*** down by Jim. (Suzuki 1990: 252)
c. The butler ***was seen to be dragged*** away. (Anderson 2005: 31)
d. Justice must not only be done; it must ***be seen to be done***.
(Swan 2016[4]: §110)

(134) a. I ***saw*** the house ***to be painted*** white. (Declerck 1981: 86)
b. John ***sees*** a new syntactician ***to be needed***. (Moulton 2009: 161)
c. Avoiding Richard, who got to his feet as soon as he ***saw*** something ***to be carried***, she kicked open the top of the Arctic and flung them in golden handfuls onto the glowing bed of fuel. (BNC. W_fict_prose)
d. But hopefully it will also mean some people will ***see*** improvements ***to be made*** to the basemaps, and will get interested in joining in with the OpenStreetMap project (it's a lot of fun!) (COCA. 2012. BLOG)

However, it is not acceptable in the bare infinitival complement for the active form which indicate direct perception, as in (135).

(135) a. *I ***saw*** him ***be rejected***. (Bolinger 1974: 69)
b. *We ***saw*** John ***be hurt*** by a shell. (Declerck 1981: 87)
c. ??The policeman ***saw*** the prisoner ***be arrested***. (Basilico 2003: 9)
d. *Jane ***saw*** Peter ***be kissed***. (Gisborne 2010: 209)

Additionally, individual-level predicates which intuitively denote permanent states such as *be tall* or *know French*, are acceptable in the *to*-infinitival complement for the passive form which implies the indirect perception rather than direct perception, as in (136) and the active form, as in (137). However, in the bare infinitival complement for the active form, (138) is not acceptable, because perception verbs (which imply direct perception) do not co-occur with non-perceivable events.

(136) a. John ***was seen to know*** French. (Hornstein et al. 2008: 200)
b. John ***was heard to have*** an accent. (ibid.)
c. John ***was seen*** (by us) ***to be in need*** of assistance. (Declerck 1983a: 39)
d. they ***are seen to be intelligent*** rather than rational, non-rational or irrational. (BNC. W_ac_humanities_arts)

(137) a. I {***found*** / ***felt*** / ***saw***} her ***to be very Canadian*** (even though she's technically American). (Moulton 2009: 138)
b. I {***found*** / ***felt*** / ***saw***} him ***to be*** {***rude*** / ***pretty*** / ***a good doctor*** / ***tall***}. (ibid.)

(138) a. *I ***saw*** John ***know*** French. (Hornstein et al. 2008: 200)
b. *I ***heard*** John ***have*** an accent. (ibid.)
c. *Martha ***saw*** the policemen ***be mammals***. (Carlson 1977: 125)
d. *We ***saw*** John ***be in need*** of assistance. (Declerck 1983a: 39)

Furthermore, the occurrence of negation in the complement is additional evidence that the *to*-infinitival complement for the passive form implies indirect perception or inference. Because the bare infinitival complement for the active form connotes direct perception and it is not possible to perceive an event that did not occur, (139a) is therefore grammatically incorrect. In contrast, (139b) is correct because it denotes indirect perception and inference based on direct perception.[17]

(139) a. *We ***saw*** only John ***not run*** away. (Declerck 1983a: 40)
b. Only John ***was seen not to run*** away. (ibid.)

From these linguistic facts, it can be summarized that the passive form of the perception verbs with the *to*-infinitival complements indicates indirect perception or inference.

3.3.2. Time Lag

Some previous studies have pointed out that the *to*-infinitival complement for the passive form indicates the temporal order of two events, or a time lag between the two actions. This is because the *to*-infinitive is future indicative. According to Asao (2019), in (140), the person who saw Payne was not intentionally watching him gallop away on his horse; rather, the observer happened to see Payne after the observer's walking down the street or looking out of the window of his or her house, thus seeing Payne (incidentally) gallop away on his horse. In other words, "***was seen to ride*** away" indicates that the order of the two actions is not simultaneous: there is a time lag between the observer's "looking" and "seeing Payne ride away."

(140) A similar horse was tied before the door of Mr. Seward on the night of the murder, was captured after the flight of Payne, who ***was seen to ride*** away, ...
(David E. Herold, et al., *The Assassination of President Lincoln and the Trial of the Conspirator*: Asao 2019: 220)

Kubota (2013) also explains why the *to*-infinitive occurs in the complement for the passive form, in terms of the word *to* representing the time lag. Kubota (2013: 85) states that what is heard is the sound, but the direction of the sound source in (141) is unknown; the sound's direction must be inferred from judgements made after the sound is heard. Thus, the perception of the sound and judgements about its direction have a time lag. In contrast, the bare infinitive indicates simultaneity. Therefore, Kubota (2013) concludes that the semantic content of the *to*-infinitive in *be* {*seen / heard*} *to-Inf* represents not what the speaker has directly seen or heard, but rather the judgement based on guesswork.

(141) a. The tune ***was heard to come*** from the top of the hill. (Kubota 2013: 85)
b. *I ***heard*** the tune ***come*** from the top of the hill. (ibid.)

However, there are two problems with these explanations. The first question to be addressed is this: is the bare infinitive acceptable in the complement for the passive form where it implies an instantaneous and simultaneous action, such as a gunshot or an explosion, as in "He ***was heard (to) fire*** a shot" and "The red light ***was seen*** [***(to) flash*** just once]"? With regard to the possibility that "He ***was heard (to) fire*** a shot" and "I ***heard*** him ***fire*** a shot" elicit a reading of simultaneity, Kira (2006: 43) argues that the present participial complement in (142a-b) is not acceptable because the sound of a gunshot and an explosion are so instantaneous that it is physically (cognitively) impossible to pick them up as sounds with duration at the moment, and it is therefore only acceptable if reading of repetition is given, as in (142c-d).

(142) a. I ***heard*** him {***fire*** / ***firing***} a shot. (Declerck 1991: 489)
b. I ***heard*** the bomb {***explode*** / ***exploding***}. (Swan 2005[3]: 222)
c. I ***heard*** him ***firing*** several shots at my car. (Kira 2006: 43)
d. I ***heard*** bombs ***exploding***. (cf. Ando 2005: 828)

According to several informants, the same applies to the perception verb *see*, as in (143a-c) (note that each adverbial phrase (e.g., *just once* and *several times*) in the examples of (143a-c) modifies each non-finite verb in the complement, not each matrix verb). On the other hand, (143d) is grammatical, unlike (143b), because the adverbial phrase *just once* in (143d) modifies the matrix verb *saw*.

(143) a. I ***saw*** [the red light ***flash*** just once]. (Censored.)
b. *I ***saw*** [the red light ***flashing*** just once]. (Censored.)
c. I ***saw*** [the red light ***flashing*** several times]. (Censored.)
d. I ***saw*** [the red light ***flashing***] just once. (Censored.)

The second question that is elicited is the following: is it impossible that the bare infinitival complement (such as "He ***saw*** the man ***cross*** the street") could also imply the order of the two actions? To fully address these problems, this paper, as previous studies, such as Dixon (2005[2]), takes it as given that the *to*-infinitive does not indicate the order of the two actions or time lag, but rather it implies either indirect perception or inference based on direct perception, although it is future indicative, in nature.

3.3.3. Evidentiality

In 3.1.4, we confirmed that non-finite verbs appearing in the complements of perception verbs indicate not only the aspect but also evidentiality reflecting the aspect and, in this section, we will clarify the constraints imposed on the choice of infinitive in the complements for the passive form of perception verbs. As demonstrated in 3.1.4, evidentiality is part of modality and the grammatical category that changes the form of the verbs, depending on the information sources. According to previous studies such as Mitchell (2009) and Whitt (2010a), non-finite verbs in the complements of perception verbs also connote evidential meaning. This paper also assumes that non-finite verbs appearing in the complements of perception verbs indicate not only the aspect but also evidentiality reflecting that aspect, as demonstrated in 3.1.4.

Then, this paper proposes that these modal interpretations are also applied to non-finite verbs in the complement for the passive form of perception verbs, as in (144).

(144) a. *He ***was seen walk*** across the road. 【Direct Evidentiality: Strong】
b. He ***was seen walking*** across the road. 【Direct Evidentiality: Medium】
c. He ***was seen to walk*** across the road. 【Direct Evidentiality: Weak】

The evidence that the *to*-infinitival complement for the passive form implies the weak direct evidentiality or strong indirect evidentiality as in (144c) is the compatibility with the word *apparently*, as in (145).[18] Because the *to*-infinitive, when serving as the complement for the passive form of the perception verbs, indicates the indirect report or inference rather than the direct perception, it is thus considered compatible with the word *apparently*, which weakens the certainty of the utterance.[19]

(145) a. John ***is seen to be*** their best hope. (Bolinger 1974: 80)
=John is <u>apparently</u> their best hope.
b. She ***was seen to make*** friends with everyone. (Kashino 1989: 425)
=<u>Apparently</u> she made friends with everyone.

One can easily locate further evidence for weak direct evidentiality or strong indirect evidentiality of the *to*-infinitive, when used as the complement for the passive form, as in (146).

(146) a. They ***had seen*** him ***drive***, so everyone decided to go by bus.
(Huddleston and Pullum 2002: 1237)
b. ?He ***had been seen to drive***, so everyone decided to go by bus. (ibid.)

Due to strong direct evidentiality of the bare infinitive, (146a) indicates the following: "They decided to take the bus because they had actually seen him drive, and they judged that he drives roughly" and due to weak direct evidentiality of the passive form of the perception verbs and *to*-infinitival complement, (146b) indicates the following: "They decided to take the bus because it seemed likely that he drives roughly (although it is unclear who saw it)." Thus, (146b) would be considered less acceptable because the *to*-infinitive implies weak direct evidentiality or strong indirect evidentiality and it would be difficult to identify causality. Declerck (1983a) also provides similar examples, as in (147), below.

(147) a. When one ***hears*** him ***talk***, one gets the impression that he is of French birth.
(Declerck 1983a: 41)
b. *When he ***is heard to talk***, one gets the impression that he is of French birth.
(ibid.)

Weak direct evidentiality or strong indirect evidentiality of the *to*-infinitive functioning as the complement for the passive form can also be explained by the following examples.

(148) a. It is surprising that you ***saw*** John ***leave***. (Blanco 2011: 152)
b. ??It is surprising that John ***was seen to leave***. (ibid.)

According to Blanco (2011), (148a) is predicative because of the bare infinitive, whereas (148b) is neither predicative nor acceptable. It can also be the case, as shown in (149), that presence or absence of shared information can make the passive sentence with the *to*-infinitive either acceptable or unacceptable.

(149) a. (I wonder whether John has ever mentioned me.) Have you ever ***heard*** him ***utter*** my name? (Declerck 1983a: 40)
b. (I wonder whether John has ever mentioned me.) Has he ever ***been heard to utter*** my name? (ibid.)
c. (John has a funny way of pronouncing my name.) Have you ever ***heard*** him ***pronounce*** it? (ibid.)

d. (John has a funny way of pronouncing my name.) *Has he ever ***been heard to pronounce*** it? (ibid.)

Regarding the active form in (149a) and (149c), each sentence is grammatically correct, regardless of either the presence or the absence of the shared information. What is more, the passive form in (149b) is also acceptable because the word *to* weakens the direct evidentiality of the statement in relation to an indeterminate fact. In contrast, the passive form in (149d) is not acceptable because it weakens the direct evidentiality of the statement, despite presenting the shared information about John's habit of pronouncing the name in an odd way.

Bolinger (1974: 87) argues that (150) would never be used in real circumstances and the impressions seem to float into an unhearing ear or a sightless eye due to the absence of the perceiver.

(150) a. Exotic bells ***were heard ring***. (Bolinger 1974: 87)
b. Vague forms ***were seen pass*** by. (ibid.)

Even if the perceiver is restored with the inclusion of a phrase *by* + *agent*, as in (151), the bare infinitival complement for the passive form is not acceptable.

(151) a. *The moon ***was seen*** (by me) ***rise*** over the mountain last night. (Inoue 1983b: 65)
b. *Sandy ***was seen leave*** early (by Kim). (van Valin and LaPolla 1997: 473)

According to Tanaka's (1990) informant survey on the use of *by* + *agent* in the complement for the passive form of perception verbs, (152a) is the more common expression than (152b), and the active form is used as much as possible when it is an option. However, the passive form is preferred when the agent is either unknown or unnecessary. What is more, it would be unnatural to indicate the agent in the passive form, as in (152b) and it would be better to use the present participial complement, as in "A blonde woman ***was seen crossing*** the street."

(152) a. Mr. Johnson ***saw*** a blonde woman ***cross*** the street. (Tanaka 1990: 227)
b. A blonde woman ***was seen to cross*** the street by Mr. Johnson. (ibid.)

In another survey, Takaie and Hayashi (2004: 53) state that many native English speakers reported that they rarely use the passive form of *see* along with the *to*-infinitive. They also note that this type of the passive form is unnatural, if not impossible, and that the active form should be used unless there is a particular reason not to. Thus, the question arises: when and how is *be* {*seen / heard*} *to-Inf* used?

Kashino (2010: 410) states that the passive form is generally used when the speaker does not know, does not want to say, or is unaware of the agent, and in written language the passive form can be used to indicate objectivity. Furthermore, Kashino (2010: 410) states that these points also apply to the passive form of perception verbs, which often indicates objectivity, and it is used in testimony in criminal investigations or newspaper reports.

Regarding this objectivity, Kira (2006: 45) claims that an action expressed in the passive form cannot be an intentional action because its fulfillment is left to the intention of the subject of the active form. This suggests that the infinitive functioning as the complement for the passive form of perception verbs should be the *to*-infinitive, not the bare infinitive, because the action itself does not contain volition, and thus has less objective evidentiality. Here, then, another question arises: why is *be* {*seen / heard*} *to-Inf* (which connotes the weak direct evidentiality or strong indirect evidentiality) used in the testimony concerning the criminal investigations and in newspaper reports? Horiuchi (1964: 157-158) suggests that newspapers use the verb *help* to indicate that a factor or suspect plays a partial role, because it is not good practice to express the causality in relation to suspects not yet proven guilty in absolute terms. Similarly, in the case of perception verbs, it is assumed that *be* {*seen / heard*} *to-Inf* indicates the indirect evidence and implies the relationship of the case, rather than expressing the causality directly, which would be done using the active form. Moreover – assuming that a non-finite verb occurring in the complement of a perception verb implies an evidential property and that the passive form of a perception verb implies indirect perception or inference based on direct perception because the subject (who could be the source of the perceptual information) is omitted – the acceptability of the non-finite verbs in the complement for the passive form such as *be* {*seen / heard*} *Inf* can be explained, as demonstrated in (144). As explained above, there is no semantic conflict between the meaning of the present participle and the *to*-infinitive in (144b-c), which do not have strong direct evidentiality, and the meaning of the passive form of perception verbs, which indicates indirect perception or inference. In stark contrast, the bare infinitive in (144a) has strong direct evidentiality, which is inconsistent with indirect perception or inference as indicated by

the passive form of perception verbs. Therefore, the bare infinitive in (144a) is unacceptable.

It also seems that the unacceptability of (144a) can be explained in terms of the aspectuality of the bare infinitive (that is, the perfectivity of the bare infinitive alone) without bringing in the concept of the evidentiality. Firstly, Kirsner (1977) states that the active form of the perception verbs *see* and *hear* denotes intentional perception or accidental perception, while their passive form denotes only the accidental perception, as in (153) and (154).

(153) a. They ***saw*** Nureyev ***dance*** last night. (intentional or accidental perception) (cf. Kirsner 1977: 174)
b. Nureyev ***was seen to dance*** last night. (accidental perception) (ibid.)

(154) a. They ***heard*** Sills ***sing*** at the Opera House. (intentional or accidental perception) (cf. Kirsner 1977: 174)
b. Sills ***was heard to sing*** at the Opera House. (accidental perception) (ibid.)

This statement can be verified by the following acceptability. According to Kirsner (1977: 174-175), the perceiver of *watch* and *listen to* is agentive (i.e., responsible for the perception) and the perceptual event must be anticipated. Therefore, if the perceptual event of the verbs *watch* and *listen to* is unanticipated, the example is less grammatical, as shown in (155). On the other hand, the perceiver of the verbs *see* and *hear* is not agentive, so the perception verbs *see* and *hear* can be followed by an unanticipated event.[20]

(155) a. Harry {***saw*** / ?watched} the accident. (i.e., an unanticipated event) (Kirsner 1977: 175)
b. Bill {***heard*** / ?listened to} Sue ***fall*** down the stairs. (ibid.)
c. Suddenly I {***heard*** / *listened to} a strange noise. (Swan 2016[4]: § 481)

Kirsner and Thompson (1976: 183-184) also provide some examples. The perception verbs *see* and *hear* which denote accidental perception are compatible with "a flash" and "a bust," which are noun phrases with an indefinite article and indicate the unanticipated event, while the perception verbs *watch* and *listen to*, which denote the intentional perception, are not.

(156) a. I ***saw*** {a / the} flash of light. (Kirsner and Thompson 1976: 183-184)
b. I watch {?a / the} flash of light. (ibid.)
c. I ***heard*** a flash {a / the} bust of machine-gan fire. (ibid.)
d. I listened to a flash {?a / the} bust of machine-gan fire. (ibid.)

Secondly, Kirsner (1977) states that the passive form of the perception verbs *see* and *hear* denotes only the accidental perception, as shown in (153b) and (154b). As evidence, Kirsner (1977: 174) cites the following examples. The perception verbs *see* and *hear* which denote accidental perception can be used in the passive form, while the perception verbs *watch* and *listen to*, which denote only the intentional perception, cannot.[21]

(157) a. The President ***was*** {***heard*** / *listened to} ***to mutter*** to himself.
(Kirsner 1977: 174)
b. Nureyev ***was*** {***seen*** / *watched} ***to leap*** across the stage. (ibid.)

These linguistic facts show that the passive form of perception verbs indicates accidental perception. Furthermore, according to Kira (2006: 46), passive actions cannot be intentional, as mentioned above, and accidental perception is an instantaneous event. This instantaneous perceptual action is incompatible with the bare infinitive indicating completeness, as shown in (158). As demonstrated in 1.2.2, for the acceptability in these examples, in (158a), the present participial complement is grammatically correct, which denotes "I see him in the middle of leaving." On the other hand, the bare infinitival complement in (158a) is not grammatical. This is due to the tense of the perception verbs. According to Yasui (1997: 10) and Kira (2006: 39), perception verbs in simple present tense indicate instantaneous perception, but the event indicated by the bare infinitival complement, which implies completion, has a certain time span, making it difficult for the bare infinitival complement to co-occur with the expression of instantaneous perception because of time inconsistency. Furthermore, the phrase of "Look!" and "in this photograph" in (158) reinforces an instantaneous reading and therefore the bare infinitival complement, implying completeness, is judged to be ungrammatical.[22]

(158) a. Look! I ***see*** him {****leave*** / ***leaving***} the building.
(Larsen-Freeman and Celce-Murcia 2015[3]: 696)
b. In this photograph you can ***see*** Joan {****blink*** / ***blinking***}.
(Kirsner and Thompson 1976: 170)

Also, accidental perception implies that it is often instantaneous. This may be the reason why the passive form of perception verbs is difficult to use as the progressive form, as in (159).

(159) a. (Come on!) We***'re seeing*** Apollo 19 {***take*** / ***taking***} off.
(Kirsner and Thompson 1976: 221)
b. *Apollo 19 ***is being seen*** by us ***to take*** off. (Declerck 1983a: 40)
c. They {***heard*** / ***were hearing***} Patty ***tell*** about her trip. (Yasui 1987: 477)
d. Patty ***was*** {***heard*** / ?***being heard***} ***to tell*** about her trip. (ibid.)

Therefore, the passive form of perception verbs which indicate accidental perception and instantaneous event is also incompatible with the bare infinitive indicating completeness due to the time inconsistency between them, while the passive form of perception verbs which indicate accidental perception and the instantaneous event is compatible with the present participle indicating incompleteness, as shown in (160).

(160) a. *He ***was seen***<accidental perception / instantaneous> ***cross***<perfective> the street.
b. He ***was seen***<accidental perception / instantaneous> ***crossing***<imperfective> the street.

This aspectual perspective seems to explain why the passive form of the perception verbs does not take the bare infinitive in its complement. However, is the bare infinitive acceptable in the complement for the passive form in the case where the bare infinitive implies an instantaneous and simultaneous action? According to some informants, the example is not grammatical, as in (161).

(161) a. *He ***was heard fire*** a shot. (Censored.)
b. *The bomb ***was heard explode***. (Censored.)
c. *The red light ***was seen*** [***flash*** just once]. (Censored.)

The evidence for the instantaneous simultaneity of these bare infinitives is again presented below.

(162) a. I ***heard*** him {***fire*** / ****firing***} a shot. (Declerck 1991: 489)
b. I ***heard*** the bomb {***explode*** / ****exploding***}. (Swan 2005[3]: 222)
c. I ***saw*** [the red light {***flash*** / ****flashing***} just once]. (Censored.)
d. I ***heard*** him ***firing*** several shots at my car. (Kira 2006: 43)

e. I ***heard*** bombs ***exploding***. (cf. Ando 2005: 828)
f. I ***saw*** [the red light ***flashing*** several times.] (Censored.)

Besides, this analysis cannot explain why the passive form of perception verbs take the *to*-infinitive in their complements. This is because the *to*-infinitive can indicate perfectivity and imperfectivity, as shown in (163).

(163) He ***was seen***<accidental perception / instantaneous> ***to cross***<perfective or imperfective> the street.

According to Konishi (2006: 574), the *to*-infinitival complement for the passive form of perception verbs indicates totality of events and Alexander (1988) also states that it indicates perfectivity, as in (164).

(164) a. They ***were seen to wait*** on the corner. (action completed)
(Alexander 1988: 302)
b. They ***were seen waiting*** on the corner. (action in progress) (ibid.)

However, the *to*-infinitival complement of perception verbs can be followed by a negative expression that cancels the event out, as demonstrated in (165), although the following examples are not examples of the passive form. As for the acceptability of "He ***was seen to kiss*** her, but he didn't" and "He ***was heard to sing*** the song, but he didn't," some informants state that "He ***was seen kissing*** her, but he didn't" and "He ***was heard singing*** the song, but he didn't" are grammatically correct while the acceptability of "He ***was seen to kiss*** her, but he didn't" and "He ***was heard to sing*** the song, but he didn't" is uncertain. This may be because the passive form with the present participle often used than that with the *to*-infinitive and the use of the passive form with the *to*-infinitive is quite rare and limited in its use, as Tanaka (1990: 227) and Takaie and Hayashi (2004: 53) state.

(165) a. Martha ***saw*** Fred ***to be driving*** too fast, but he actually wasn't.
(Moulton 2009: 129)
b. John ***saw*** Mary ***to be holding*** a straw up to her cheek, but she was not holding a straw up to her cheek; she was drinking a soda. (Moulton 2009: 139)
c. Mary ***heard*** the teacher ***to be dropping*** a book, but he actually was slamming a door. (Moulton 2009: 140)
d. Martha ***heard*** Bob ***to be*** out of tune, but he wasn't. (Moulton 2009: 199)

Perfectivity and imperfectivity of the *to*-infinitive can also be found in the causative verbs, as in (166) and (167).

(166) a. I ***persuaded*** him ***to leave*** the building, but he later changed his mind and stayed. (Talmy 1976: 105)
b. I ***allowed*** him ***to do*** it, but he didn't do it. (Duffley 1992: 85)
c. She ***asked*** him ***to shave*** but he refused. (Givón 2001: 45)
d. The sergeant ***ordered*** the recruits ***to hop*** on the spot, but they didn't do it. (Hollmann 2006: 203)

(167) a. *John ***got*** Bill ***to do*** the dishes, but Bill didn't do the dishes. (Inoue 1985: 24)
b. *The police ***got*** him ***to confess*** to the crime, but he didn't confess. (Hollmann 2003: 12)
c. *The thief ***forced*** her ***to hand*** over the money, but she didn't do it. (Hamawand 2005: 203)
d. ?The blast ***caused*** the boat ***to heel***, but the boat didn't heel. (Wolff et al. 2002: 286)
e. *Mary's arrival ***caused*** John ***to cancel*** his appointment, but he forget to. (Kuno and Takami 2014: 108)

Thus, although the aspectual analysis cannot fully account for the restriction on the infinitival selection, the evidential analysis can account for the occurrence of the *to*-infinitive as well as the non-occurrence of the bare infinitive in the complement for the passive form of perception verbs. Therefore, the evidential analysis is considered more valid.

3.3.4. Summary

Non-finite verbs in the complements of perception verbs embody the evidentiality that reflects their aspectual property. The bare infinitive indicates perfectivity of the perceptual event and strong direct evidentiality reflecting the aspect of perfectivity, whereas the present participle indicates imperfectivity and weaker direct evidentiality than the bare infinitive reflecting the aspect of imperfectivity. The *to*-infinitive indicates inference and weak direct evidentiality reflecting the aspect of futurity. On the other hand, the passive form of the perception verbs implies the indirect perception or inference based on direct perception because the subject (who could be the source of the perceptual

information) is omitted. However, in the case of *be* {*seen* / *heard*} *Inf*, the bare infinitive implies strong direct evidentiality that reflects its aspectual property of perfectivity, although the passive form of perception verbs implies either indirect perception or inference based on direct perception by omitting the subject (i.e., the source of the perceptual information). Thus, *be* {*seen* / *heard*} *Inf* is incorrect because of its semantic conflict.

3.4. Diachronic Analysis on Infinitival Selection in the Complements for the Passive Forms of Perception Verbs

3.4.1. Evidentiality and Aspects of Non-finite Verbs in the Complements for the Passive Forms of Perception Verbs in Modern English

The previous section analyzed the restriction of the choice of infinitive in the complements for the passive form of perception verbs. However, according to the OED, there are some potential counterexamples to the analysis in the previous section.

(168) a. If that chylde..***be harde crye***.
(1528-30 tr. T. Littleton *Tenures* (new ed.) f. iiiv; OED. *hear*, *v*. 3a)
b. Phocion ***was*** never ***seen laugh*** ne wepe.
(1542 N. Udall tr. Erasmus *Apophthegmes* Table Y f. ijv; OED. *see*, *v*. 1a(b))
c. But some of them reported that he ***was seene flie***, and was escaped.
(1596 T. Danett tr. P. de Commynes *Hist*. v. x. 175; ibid.)

The first appearance of the passive form of the perception verbs with the *to*-infinitival complement in the OED is also in the 16th century, as in (169). As for this occurrence of the *to*-infinitive in the complement, Ono and Ito (2009: 140) point out that phonological factors may have influenced the appearance of the *to*-infinitive.

(169) That thou wilt not ***be seen to talke*** with any others wife.
(1577 T. Kendall tr. Politianus et al. *Flowers of Epigrammes* f. 28; OED. *see*, *v*. 1a(b))

However, Visser (1973: 2409), Moessner (1989: 160) and Ono and Ito (2009: 141) also provide the following examples. According to Visser (1973: 2409), these structures

survived in a number of instances in Middle English, as demonstrated in 2.4. However, these examples cannot be found in PPCME2.

(170) a. to þam Pentecosten ***wæs gesewen*** innan Barrucscire æt anan tune blod ***weallan*** of eorþan (PC1100, 3f.; Moessner 1989: 160)

b. þe britons ... ***wer sene Hald*** aunciene custum.
(c1350 Castleford (ed. F.Behre) 21358; Visser 1973: 2409)

c. noo man ... ***is seyn prevaile*** In felde.
(c1460 Verse tr. of De Re Militari (EETS) 359; ibid.)

d. there ***were*** neuer knyghtes ***sene fyghte*** more fyersly.
(c1470 Malory M. d'A. (Sommer) 307, 1; ibid.)

e. the goodlyest men of armes ... that ever ***was sene come*** out of France.
(1523-5 Berners, Froiss. II, 130; ibid.)

f. he may ***be herde speke*** hymselfe. (1523-5 Berners, Froiss. III, 7; ibid.)

g. it is reason they ***be herde speke***. (1523-5 Berners, Froiss. IV, 466; ibid.)

h. Christopher Marlow; whose ghoast or Genius is to ***be seene walke*** the Churchyard
(1600 T. Thorpe, Ded. to Marlowe's Lucan; Ono and Ito 2009: 141)

i. lest you should ***be seen go*** hence.
(1672 Wycherley, Love in a Wood II, ii; Visser 1973: 2410)

j. through the gloom ***were seen*** Ten thousand Banners ***rise*** into the Air.
(1667 Milton, PL. 1, 544-5; Ono and Ito 2009: 141)

Ono and Ito (2009: 141) state that these structures can be found until the 17th century.[23]

This section investigates whether the examples in (168) and (170) can counter the analysis in the previous section, using the historical corpora such as EEBO. Then, this paper will show that the bare infinitives in (168) and (170) did not indicate the aspectual property and discuss the possibility that the bare infinitives in (168) and (170) were also grammatical, because they did not have the aspectual properties found in Present-Day English and did not have the evidential properties that reflect their aspect.

Firstly, as for the examples in (168) and (170), a survey on the examples in EEBO also suggests that the examples of (168) and (170) existed until the 17th century, as shown in Table 13. In this survey, examples of split infinitives were excluded. Note that the figures in parentheses in Table 13 are per million words. However, these examples cannot be found in PPCMBE.

Table 13. Distribution of '*be {seen / heard} Inf*' in EEBO

	15c	16c	17c	TOTAL
be seen Inf	8 (1.25)	8 (0.06)	95 (0.15)	111 (0.15)
be heard Inf	0 (0)	37 (0.29)	193 (0.31)	230 (0.3)
TOTAL	8 (1.25)	45 (0.35)	288 (0.46)	341 (0.45)

Regarding these examples, verbs that indicate movements such as *go*, *come,* and *ascend* and speeches such as *say* and *tell* are used as the bare infinitives, as shown in (171).

(171) a. thus one will not ***be seen go*** into an alehouse, (EEBO. 1654)
b. sir humphrey ***was seen come*** into the church-yard: (EEBO. 1689)
c. as he ***was seen ascend*** when a cloud came and received him out of their sight who stood gazing, (EEBO. 1695)
d. she ***was heard speake*** these wordes of certayne that stoode by: (EEBO. 1583)
e. they have ***beene heard say*** when they are amongst themselves, (EEBO. 1646)

On the other hand, the *to*-infinitival complement for the passive form of the perception verbs in EEBO was much more frequently detected in the 17th century, as in Table 14. See Table 15 for the distribution of the infinitival complements for the passive form of the perception verbs in EEBO. Note that the figures in parentheses in Table 14 are per million words.

Table 14. Distribution of '*be* {*seen* / *heard*} *to-Inf*' in EEBO

	15c	16c	17c	TOTAL
be seen *to*-Inf	3 (0.47)	37 (0.29)	1,563 (2.52)	1,603 (2.12)
be heard *to*-Inf	0 (0)	73 (0.57)	974 (1.57)	1,047 (1.39)
TOTAL	3 (0.46)	110 (0.86)	2,537 (4.08)	2,650 (3.51)

Table 15. Distribution of Infinitival Complements for the Passive Form of Perception Verbs in EEBO

	15c	16c	17c	TOTAL
be {seen / heard} Inf	8 (72.7%)	45 (29.0%)	288 (10.2%)	341 (11.4%)
be {seen / heard} *to*-Inf	3 (27.3%)	110 (71.0%)	2,537 (89.8%)	2,650 (88.6%)
TOTAL	11	155	2825	2991

As can be seen from Table 15, the percentage of the bare infinitival complements for the passive form of the perception verbs was declining in the 17th century. Furthermore, no such examples were also detected in corpora such as PPCMBE, ARCHER and COHA. Then, why and how could such examples exist diachronically? This section discusses the possibility that such examples were grammatical because the non-finite verbs occurring in the complements of perception verbs in Modern English did not represent the same aspects as found in Present-Day English, nor did they represent evidentiality reflecting those aspects.

As demonstrated in 3.3.3, *be {seen / heard} Inf* is considered ungrammatical in Present-Day English, as in (172a) because the bare infinitive has strong direct evidentiality, which is inconsistent with indirect perception or inference indicated by the passive form of perception verbs.

(172) a. *He ***was seen walk*** across the road. 【Direct Evidentiality: Strong】
b. He ***was seen walking*** across the road. 【Direct Evidentiality: Medium】
c. He ***was seen to walk*** across the road. 【Direct Evidentiality: Weak】

This strong direct evidential nature is due to the aspect of perfectivity that the bare infinitive has. As demonstrated in 3.1.4, the bare infinitive has the aspect of perfectivity and implies that the whole of the perceptual event is perceived and the perceiver has enough evidence of the perceptual event, and thus it indicates strong direct evidentiality reflecting its perfectivity. However, this aspect of perfectivity was still under development in Early Modern English, as demonstrated in 3.2.3. As evidence of this, the following examples existed in Early Modern English.

(173) a. thus Iacob the sonne of isaac ***sawe*** a ladder ***stand*** vpon the earth, (EEBO. 1582)
b. wee haue ***seene*** the axe ***lie*** at the roote of our greatest cedars, (EEBO. 1606)
c. Mee thinkes i ***see*** a sword ***hang*** in the ayre by a twine threed, (EEBO. 1599)

These examples are unacceptable in Present-Day English, as in (174), and the constraints are imposed on the choice of the logical subjects and non-finite verbs.

(174) a. *I ***saw*** the ladder ***lean*** against the side of the house. (Kirsner and Thompson 1976: 220)
b. *I ***saw*** the lamp ***stand*** on the table. (Akmajian 1977: 440)
c. *He ***saw*** a portrait of Sapir ***hang*** on the wall. (Seki 1989: 93)

On the other hand, the construction with the present participle is grammatically correct, as in (175).

(175) a. I ***saw*** the ladder ***leaning*** against the side of the house. (Kirsner and Thompson 1976: 220)
b. I ***saw*** the lamp ***standing*** in the corner. (Pizer 1994: 39)
c. He ***saw*** a portrait of Sapir ***hanging*** on the wall. (Seki 1989: 93)

In addition to these examples, in EEBO, the instances of the use of the inanimate subject with the non-movable feature and the bare infinitive of positional verbs were confirmed, as in (176).

(176) a. whensoeuer wee ***see*** the church ***stand*** in neede of our helpe, (EEBO. 1583)
b. and ***sees*** the land ***lye*** faire before her: (EEBO. 1615)

These examples are also not acceptable in Present-Day English, as seen in (177).

(177) a. !We ***saw*** Rome ***stand*** on the Tiber. (Gisborne 2010: 206)
b. *We ***saw*** there ***stand*** a giant monument. (Felser 1999: 170)

This is because stative events cannot be viewed as completed events with end-points, as shown in (178) (cf. Kira (2006: 46)).

(178) a. *We ***saw*** dinosaurs ***love*** kelp. (Felser 1999: 52)
b. *I ***saw*** John ***own*** a house. (Miller 2002: 245)
c. *We ***saw*** John ***know*** the answer. (ibid.)
d. *Mary ***saw*** John ***resemble*** his father. (Moltmann 2013: 296)

In EEBO, some cases use stative verbs in the complements of perception verbs, such as (179) and (180).

(179) a. but wee shall ***see*** him ***have*** more grace, (EEBO. 1635)
b. he was absolutely mine and i was ambitious to ***see*** him ***have*** the empire, (EEBO. 1677)

(180) a. but if you cast it into water you shal ***see*** it ***resemble*** the soft, (EEBO. 1615)
b. for the more they looked upon aronces the more they ***saw*** him ***resemble*** the king porsenna, (EEBO. 1678)

In some cases, as shown below, the bare infinitival complement in the Authorized Version changes to the present participial complement in the New Revised Standard Version. Therefore, it is difficult to state that the bare infinitive in Modern English indicated the aspect of completion.

(181) a. Then Moses ***heard*** the people ***weep*** throughout their families, every man in the door of his tent: and the anger of the Lord was kindled greatly; Moses also was displeased. (Authorized Version. Numbers 11: 10)
b. Moses ***heard*** the people ***weeping*** throughout their families, every man at the door of his tent; and the anger of the LORD blazed hotly, and Moses was displeased. (Revised Standard Version. Numbers 11: 10)
c. Moses ***heard*** the people ***weeping*** throughout their families, all at the entrances of their tents. Then the Lord became very angry, and Moses was displeased. (New Revised Standard Version. Numbers 11: 10)

(182) a. And when the barbarians ***saw*** the venomous beast ***hang*** on his hand, they said among themselves, No doubt this man is a murderer, whom, though he hath escaped the sea, yet vengeance suffereth not to live. (Authorized Version. Acts 28: 4)

b. When the natives ***saw*** the creature ***hanging*** from his hand, they said to one another, "No doubt this man is a murderer. Though he has escaped from the sea, justice has not allowed him to live."

(Revised Standard Version. Acts 28: 4)

c. When the natives ***saw*** the creature ***hanging*** from his hand, they said to one another, “This man must be a murderer; though he has escaped from the sea, justice has not allowed him to live.”

(New Revised Standard Version. Acts 28: 4)

From these linguistic facts, it is assumed that the aspect represented by the non-finite verbs in the complement of perception verbs in Early Modern English was under development and that the bare infinitives in (168), (170) and (171) were acceptable because they were also ambiguous, not only in aspect but also in evidentiality, and did not indicate a strong direct evidential nature reflecting its completeness.[24]

3.4.2. Evidential Expression with the Perception Verb *Hear* in Modern English

Regarding the evidence that the bare infinitival complement for the perception verbs in Modern English was ambiguous in evidentiality, the following examples were commonly used in Modern English. In this paper, these constructions are henceforth referred to as *hear φ say* type constructions because these expressions lack the logical subject and take only verbs indicating speech such as *say*, *tell*, *speak* and *talk* in the bare infinitival complement.

(183) a. I have ***heard φ say*** that the moon influences the weather. (Ando 2008: 126)

b. Have you ever ***heard tell*** of Captain Blackbeard? (Declerck 1991: 489)

Poutsma (1928[2]a: 206) states that the *hear φ say* type was common in Early Modern English, but it is now a distinct archaism, surviving only in some dialects. In EEBO, these constructions can be found, as in Table 16. Note that the figures in parentheses in Table 16 are per million words.

Table 16. Distribution of *Hear-say* Constructions in EEBO

	15c	16c	17c	TOTAL
hear say	46 (7.17)	734 (5.76)	891 (1.43)	1671 (2.21)
hear tell	46 (7.17)	326 (2.59)	243 (0.39)	615 (0.81)
hear speak	35 (5.46)	152 (1.19)	386 (0.62)	573 (0.76)
hear talk	0 (0)	28 (0.22)	162 (0.26)	190 (0.25)
TOTAL	127 (19.8)	1,240 (9.73)	1,682 (2.71)	3,049 (4.04)

A survey of other historical corpora shows that the examples are concentrated in Early Modern English, as in Table 17, as Poutsma (1928[2]a) states.

Table 17. Distribution of *Hear-say* Constructions in PPCME2, PPCEME and PPCMBE

	say	tell	speak	talk	TOTAL
PPCME2	0	0	0	0	0
PPCEME	13	4	1	0	18
PPCMBE	1	0	0	1	2

Examples in PPCEME and PPCMBE are shown in (184).

(184) a. I ***heard say*** that your husband would now put you in your hood, and silke gowne, (DELONEY-E2-H, 70. 51)

b. of Chartes, that is aliue, and infinite mo in France, which I ***heare tell*** of, proue this to be most false. (ASCH-E1-P2, 18R. 189)

c. This daye I will begynne to send the feare and dreade of the vppon all nacions that are vnder al portes of heauen: so that whe~ they ***heare speake*** of the, they shall tremble and quake for feare of the. (TYNDOLD-E1-P2, 2, 20D. 205)

d. No, I never heard it mentioned by either Officersor Seamen, that I ever ***heard talk*** of it, but that Capt. (HOLMES-TRIAL-1749, 80. 1505)

In ARCHER, only two cases are detected, as in (185).

(185) a. I've ***heard tell***, never stepped in leather shoes: (ARCHER. 1828moir_f5b)
b. I mind now I ***heard tell*** of you. (ARCHER. 1969bond_d8b)

According to Declerck (1991: 489), this type is used in informal English. Whitt (2010b: 139) states that the *hear φ say* type indicates that a non-specified individual (or individuals) has asserted the content of the proposition to be true and explicitly indicates that this was said and subsequently perceived through hearing. Timofeeva (2013: 189) states that the *hear φ say* type originally had the evidential meaning of hearsay evidence. Furthermore, regarding the *hear φ say* type denoting evidentiality such as hearsay, Egawa (1964^2) and Ando (2005) provide the following examples and point out the possibility that it indicates weak evidentiality such as indirect perception or inference.

(186) a. I ***hear say*** that there will be an election soon
(=It seems that there will be an election soon.) (Egawa 1964^2: 286)
b. I've often ***heard tell*** of such things
(=I have often heard rumors of such stories.) (Ando 2005: 748)

The evidence that the *hear φ say* type denotes weak evidentiality, such as hearsay, indirect perception or inference, can be seen in the following examples. In (187), *heard tell* changes to *heard the news*, indicating that the *hear φ say* type represents hearsay.

(187) a. And when Laban ***heard tell*** of Iaakob his sisters sonne, he ranne to meete him, and embraced him and kissed him, and brought him to his house: and he tolde Laban all these things. (Geneva Bible. Genesis 29: 13)
b. And it came to pass, when Laban heard the tidings of Jacob his sister's son, that he ran to meet him, and embraced him, and kissed him, and brought him to his house. And he told Laban all these things.
(Authorized Version. Genesis 29: 13)
c. When Laban heard the news about his sister's son Jacob, he ran to meet him; he embraced him and kissed him, and brought him to his house. Jacob told Laban all these things, (New Revised Standard Version. Genesis 29: 13)

In (188), *heard say* is changed to *heard* + *that*-clause. Similar phenomenon can be found in Numbers 21: 1, Joshua 22: 11, 1 Samuel 13: 4, 2 Samuel 19: 2, 1 Kings 20: 31, Luke 1: 58, and Acts 8: 14.

(188) a. And they made ready their present against Ioseph came at noone, (for they ***heard say***, that they should eate bread there) (Geneva Bible. Genesis 43: 25)
b. And they made ready the present against Joseph came at noon: for they heard that they should eat bread there. (Authorized Version. Genesis 43: 25)
c. they made the present ready for Joseph's coming at noon, for they had heard that they would dine there. (New Revised Standard Version. Genesis 43: 25)

According to Dik (1997: 108), Katami (2000: 121) and Nakamura (2009: 63), *see* + *that*-clause and *hear* + *that*-clause denote the inference or indirect perception. As for the meaning, Dik and Hengeveld (1991) and Gisborne and Holmes (2007) provide the following examples.

(189) a. I ***heard*** from John ***that*** Peter had been fighting.
(Dik and Hengeveld 1991: 247)
b. I ***saw*** in the newspaper ***that*** Peter had been fighting. (ibid.)
c. I ***see*** (e.g. in the paper) ***that*** the Hutton inquiry was a whitewash.
(Gisborne and Holmes 2007: 3)

The following examples can provide evidence that perception verbs with the *that*-clause indicate indirect perception, as previous studies state.

(190) a. I ***saw that*** Mary ***had been crying***. (Dik and Hengeveld 1991: 238)
b. *John ***saw*** Bill ***have left***. (Hornstein 1990: 154)
c. I ***saw*** the house ***to have been repainted***. (Declerck 1991: 490)
d. Mary ***was seen to have finished*** her breakfast. (Felser 1999: 32)

(191) a. I ***see that*** she ***is coming***. (Müller 2020: 57)
b. *Jane ***saw*** Peter ***be kissing***. (Gisborne 2010: 209)
c. She ***saw*** him ***to be falling*** over the bridge. (Hudson 1971: 177)
d. He ***was seen to be walking*** away. (Palmer 1987[2]: 189)

(192) a. I ***see that*** she ***knows*** Margaret. (Müller 2020: 57)
b. *I ***see*** her ***know*** Margaret. (ibid.)
c. I ***saw*** her ***to be very Canadian*** (even though she's technically American).

(cf. Moulton 2009: 138)

d. John ***was seen to know*** French. (Hornstein et al. 2008: 200)

(193) a. As she drew abreast of the drive, she ***saw that*** a car ***was parked*** next to the front door. (BNC. W_fict_prose)

b. *Jane ***saw*** Peter ***be kissed***. (Gisborne 2010: 209)

c. I ***saw*** the house ***to be painted*** white. (Declerck 1981: 86)

d. The children ***were seen to be beaten***. (Palmer 1987[2]: 199)

As shown in 1.2.2 and 3.1.2, the bare infinitival complement of perception verbs, which indicates direct perception, cannot take the perfect infinitive, *be* + {*present* / *past*} *participle* and stative verbs, while the perception verbs with the *that*-clause and the perception verbs with the *to*-infinitival complement can, as shown above. From these linguistic facts, it is assumed that the *hear φ say* type and the perception verb that takes the *that*-clause both indicate indirect perception. This may be because the *hear φ say* type originally developed from a structure in which the logical subject was omitted from the complement of the perception verb *hear*. As for this respect, Ando (2005: 748; 2008: 126), Muraoka (2022e: 27, 42) and the OED (*s.v*. *hear*, *v*. 3b) point out the possibility that these expressions originally had logical subjects such as *people*, as shown in (194) and (195), although Wakatabe (1985: 135) rejects this theory.

(194) a. I've often ***heard tell*** of such things. (Ando 2005: 748)

b. I've often ***heard*** (people) ***tell*** of such things. (cf. Ando 2008: 126)

(195) I ***hear(d)*** someone ***say(ing)*** ... > I ***hear(d)*** (someone) ***say*** ... > I ***hear(d) say*** ... (Muraoka 2022e: 27)

The following examples could support this hypothesis, as shown in (196), (197) and (198).

(196) a. If thou ***herist*** <u>ony men</u> ***seiynge*** in oon of thi citees, whiche thi Lord God schal yyue to thee to enhabite, (Wycliffe Bible Late Version. Deuteronomy 13: 12)

b. If thou shalt ***heare say*** (concerning any of thy cities which the Lord thy God hath giuen thee to dwell in) (Geneva Bible. Deuteronomy 13: 12)

c. If thou shalt ***hear say*** in one of thy cities, which the Lord thy God hath given thee to dwell there, saying, (Authorized Version. Deuteronomy 13: 12)

(197) a. He ***heard*** also men ***say*** of Tirhakah King of Ethiopia, Beholde, he is come out to fight against thee: he therefore departed and sent other messengers vnto Hezekiah, saying, (Geneva Bible. 2 Kings 19: 9)

b. And when he ***heard say*** of Tirhakah king of Ethiopia, Behold, he is come out to fight against thee: he sent messengers again unto Hezekiah, saying, (Authorized Version. 2 Kings 19: 9)

c. And when he ***heard say*** of Tirhakah king of Ethiopia, Behold, he is come out to fight against thee: he sent messengers again unto Hezekiah, saying, (Revised Version. 2 Kings 19: 9)

(198) a. And the kyng ***herde*** messangeris ***seiynge*** of Theracha, kyng of Ethiopiens, He is gon out to fiyte ayens thee. And whanne he hadde herd this thing, he sente messangeris to Ezechie, and seide, Ye schulen seie, (Wycliffe Bible Late Version. Isaiah 37: 9)

b. He ***heard*** also men ***say*** of Tirhakah, King of Ethiopia, Beholde, he is come out to fight against thee: and when he heard it, he sent other messengers to Hezekiah, saying, (Geneva Bible. Isaiah 37: 9)

c. And he ***heard say*** concerning Tirhakah king of Ethiopia, He is come forth to make war with thee. And when he heard it, he sent messengers to Hezekiah, saying, (Authorized Version. Isaiah 37: 9)

d. And he ***heard say*** concerning Tirhakah king of Ethiopia, He is come out to fight against thee. And when he heard it, he sent messengers to Hezekiah, saying, (Revised Version. Isaiah 37: 9)

Thus, it is assumed that the *hear φ say* type lacks the speaker (the logical subject) as the source of speech content and indicates weak evidentiality such as hearsay, indirect perception or inference, just as the passive form of perception verbs. This paper analyzes the *hear φ say* type as the idiomaticalized expression that indicates weak evidentiality such as hearsay, indirect perception, and inference by omitting the logical subject which is the source of speech content. Various syntactic phenomena can be found as evidence that the *hear φ say* type is the idiomaticalized expression. Firstly, the *hear φ say* type does not have the logical subject, as mentioned above. However, the perception verbs usually take the logical subject in their complement, and the examples that do not take it are considered ungrammatical, as shown in (199). Even when the subject in the main clause

and the logical subject are identical, the ellipsis of the logical subject is not acceptable and the reflexive pronoun must be used, as in (199b) and (199d).

(199) a. *We {***saw** / ***watched**} ***draw*** a circle. (Felser 1999: 17)
b. They {***saw*** / ***heard***} themselves ***sing***. (cf. Sportiche et al. 2014: 254)
c. *I ***saw trembling*** all over in the mirror. (Sakakibara 1981: 112)
d. *I ***heard talking*** on the phone. (=I ***heard*** myself ***talking*** on the phone) (Pires 2006: 87)

Furthermore, the occurrence of PRO (pronouns without phonological features) in the complement is unacceptable, as shown in (200), and the appearance of the logical subjects with the phonological features in their complements is obligatory.

(200) a. *She ***saw*** [PRO ***hammer*** the board]. (Johnson 1988: 595)
b. *I {***saw*** / ***heard***} PRO ***sing*** the song. (Sheehan and Cyrino 2017: 82)

The evidence for this obligatory appearance of the logical subject in the complement of perception verbs is the appearance of expletives such as *there* and *it*, as in (201).

(201) a. We ***saw*** there ***arise*** over the meadow a blue haze. (Kirsner and Thompson 1976: 159)
b. I ***heard*** it ***chime*** one o'clock as I was turning out of the gate. (Declerck 1983b: 106)
c. We ***saw*** it ***raining***. (Kuwabara and Matsuyama 2001: 161)
d. Rover ***heard*** it ***thundering***. (Kirsner and Thompson 1976: 159)

The emergence of expletives in the complement is said to have been established in Modern English (cf. Tanaka (2003: 298; 2010: 389) and Tanaka and Yokogoshi (2010: 247)). Nonetheless, Poutsma (1928[2]a: 206) states that the *hear φ say* type, which lacking the logical subject, was often common in Early Modern English.

The reason why the *hear φ say* type still existed even in Modern English, when the expletives were established, is probably because the *hear φ say* type was already established as the idiom indicating evidentiality such as hearsay in Modern English.

Besides, the *hear φ say* type does not take verbs other than *say*, *tell*, *speak* and *talk*, unlike normal perception verbs, as in (202).

(202) a. *I ***heard walk*** across the road. (Censored.)
b. *John ***heard read*** the book. (Censored.)

In EEBO, examples are detected in which verbs other than those indicating speech were used for the bare infinitive of *hear φ Inf*, but they were not the genuine constructions of *hear φ Inf*, as shown in (203). The verb *let* in (203a) is a matrix verb and in (203b), the logical subject moves backward, due to the heavy NP shift.

(203) a. he [that hath an eare to ***heare***] ***let*** him heare what the spirite sayeth to the churches: (EEBO. 1573)
b. thou shalt ***heare come*** out of his mouth, words as smooth as oyle, (EEBO. 1595)

This restriction on the verbs in the bare infinitive of *hear φ Inf* may be due to the idiomaticalization of the *hear φ say* type. Furthermore, the absence of the examples in which the *hear φ say* type takes the present participles rather than the bare infinitives in its complement, as shown in (204), may be evidence that the *hear φ say* type was idiomaticalized.

(204) a. *I have ***heard φ saying*** that the moon influences the weather. (Censored.)
b. *I ***heard φ telling*** that he's coming today. (Censored.)
c. *I ***heard φ talking*** on the phone. (Censored.)

In EEBO, the number of *hear φ say* types with present participles as the complement was quite small, and the number of *hear φ say* types with bare infinitives as the complement was overwhelmingly large, as shown in Table 18.

Table 18. Distribution of *hear* + {*say(ing)* / *tell(ing)* / *speak(ing)* / *talk(ing)*} in EEBO

	Inf	-ing
hear {say / saying}	1,574 (98.3%)	27 (1.7%)
hear {tell / telling}	616 (99.8%)	1 (0.2%)
hear {speak / speaking}	573 (90.1%)	63 (9.9%)
hear {talk / talking}	190 (91.3%)	18 (8.7%)
TOTAL	2,953 (96.4%)	109 (3.6%)

From these linguistic facts, this paper analyzes the *hear φ say* type as the idiomaticalized expression. Based on these linguistic facts, this paper analyzes that the *hear φ say* type became the idiomatic expression as the marker of evidentiality such as hearsay, indirect perception or inference in Modern English, but as the bare infinitives came to indicate the aspect of completeness and strong direct evidentiality reflecting that aspect, the *hear φ say* type, which denotes weak evidentiality such as hearsay (even though it takes the bare infinitival complement) started to decline, except for special cases such as dialects.[25] Considering that the *hear φ say* type, which denotes weak direct evidentiality, was widely used until Late Modern English and that the *hear φ say* type also declined in Late Modern English as the bare infinitives in the complements of perception verb began to indicate strong direct evidentiality, it is assumed that in Early Modern English, the bare infinitive in *be* {*seen* / *heard*} *Inf* was unstable in the aspect and evidentiality that reflected that aspect, and it was presumably acceptable because it did not indicate the same strong direct evidentiality as in Present-Day English.

3.4.3. Summary

This study has pointed out that non-finite verbs appearing in the complements of perception verbs may denote evidentiality reflecting the aspect. The passive form of perception verbs indicates weak evidentiality because the subject – the perceiver – is omitted. Therefore, depending on weak evidentiality, the passive form of perception verbs can take the present participle or *to*-infinitive, which also indicates weak direct evidentiality, in the complement. However, because the bare infinitive indicates the

strong direct evidentiality, it is semantically inconsistent with the passive form of perception verbs, which expresses weak evidentiality, so *be* {*seen* / *heard*} *Inf* is considered ungrammatical.

However, the passive form of perception verbs that take the bare infinitival complement, which could be counterexamples to this conclusion, diachronically existed. Regarding these counterexamples, this study has shown that non-finite verbs in the complements of perception verbs in Modern English did not indicate the same aspect as in Present-Day English, and that the expressions denoting weak evidentiality while accompanied by the bare infinitives, the constructions of *hear-say* type, were widely used in Modern English.

These linguistic facts suggest that the non-finite verbs appearing in the complements of perception verbs in Modern English did not represent aspects as they do in Present-Day English, nor did they represent evidentiality reflecting the aspects. Therefore, it is assumed that the construction of *be* {*seen* / *heard*} *Inf*, which is not grammatically correct in Present-Day English, was used in Modern English without the semantic conflict between the bare infinitive, which has strong direct evidentiality, and the passive form of perception verbs, which indicates indirect perception or inference.

3.5. Conclusion

The active form of perception verbs in Present-Day English takes the bare infinitival complement, which indicates perfectivity of perceptual event, as shown in (205).

(205) a. I ***saw*** him ***cross*** the road. (From one side to the other.) (Allen 1974[5]: 186)
b. I ***heard*** the child ***cry***. (complete occurrence) (Espunya 1996: 113)
c. We ***watched*** the prisoners ***die***. (completed) (Akmajian 1977: 440)

The *to*-infinitival complements also appear in the complement for the active form of perception verbs, although the verbs of the infinitive are limited to *be* and *have* when indicating indirect perception or inferences based on direct perception.

(206) a. I ***saw*** them ***to be*** obnoxious. (Bolinger 1974: 66)
b. They ***saw*** her ***to be*** the one. (Bolinger 1975[2]: 399)
c. I ***saw*** the house ***to have been repainted***. (Declerck 1991: 490)
d. *They ***saw*** her ***to represent*** the other tradition. (Bolinger 1975[2]: 399)

On the other hand, the *to*-infinitive appears in the complement for the passive form of perception verbs without the restrictions on the verbs in the complement, whereas the bare infinitive does not appear, as in (207).

(207) a. The dog ***was seen to cross*** the road. (Gisborne 2010: 122)
b. *The dog ***was seen cross*** the road. (Gisborne 2010: 198)
c. John ***was heard to sing*** a song. (Felser 1999: 189)
d. *Mary ***was heard sing*** a song. (Felser 1999: 152)

Regarding this restriction on the infinitival selection, non-finite verbs used as complements of perception verbs indicate evidentiality that reflects their aspectual characteristics. The bare infinitive implies strong direct evidentiality because it indicates perfectivity. In contrast, the *to*-infinitive, which is future indicative in nature, implies weak direct evidentiality, such as indirect perception and inference. What is more, the passive form of perception verbs obscures the perceiver as the information source and indicates the perceptual event (indirect perception). There is no semantic conflict between the *to*-infinitive, which does not have strong direct evidentiality, and the passive form of the perception verbs, which indicates indirect perception or inference. Therefore, the *to*-infinitive is used in the complement for the passive form of perception verbs. On the other hand, in *be* {*seen / heard*} *Inf*, the bare infinitive reinforces the direct evidentiality of the perceptual event. Thus, it is grammatically incorrect for the bare infinitive to function as the complement of the passive form of perception verbs because of the semantic inconsistency between the meaning of the passive form of perception verbs (i.e., the indirect perception) and the strong direct evidential nature indicated by the bare infinitive.

As for the infinitival selection in the complement for the passive form of the perception verbs, Ono and Ito (2009: 141) state that examples that could serve as counterexamples to my analysis existed until the 17th century.

(208) a. to þam Pentecosten ***wæs gesewen*** innan Barrucscire æt anan tune blod ***weallan*** of eorþan (PC1100, 3f.; Moessner 1989: 160)
b. through the gloom ***were seen*** Ten thousand Banners ***rise*** into the Air.
(Milton, PL. 1, 544-5; Ono and Ito 2009: 141)

However, the non-finite verbs appearing in the complements of the perception verbs in Modern English did not represent the same aspect as seen in Present-Day English. Therefore, it is assumed that the construction of *be* {*seen* / *heard*} *Inf*, which is not

grammatically correct in Present-Day English, was used in practice without the semantic conflict between the bare infinitive (strong direct evidentiality reflecting the perfectivity) and the passive form of perception verbs (weak direct evidentiality) in Modern English. Hence, my analysis is not negated by the diachronic data and can further explain why such examples could exist.

Notes

[1] However, contrary to this linguistic fact, (i) is acceptable. In this sentence, the subject in the main clause does not see the event of John owning the house itself but recognizes the occurrence of the event of John owning the house based on the perception of the concrete event such as winning a bet or a quiz show.

(i) I ***saw*** John ***own*** a house. (Mittwoch 1990: 106)

Furthermore, Akmajian (1977) considers the following example ungrammatical, as in (ii), but the similar examples can be detected in BNC and COCA, as shown in (iii).

(ii) *We ***saw*** John ***look*** pretty sick. (Akmajian 1977: 440)

(iii) a. Plus, it's the only time I actually ***see*** you ***look*** nervous about anything. (COCA. 2006. FIC)
b. I'd ***seen*** him ***look*** worse, but not often. (COCA. 2009. FIC)
c. Piper had never ***seen*** him ***look*** so vulnerable. (BNC. W_fict_prose)
d. It was the first time she'd ***seen*** him ***look*** really happy. (BNC. W_fict_prose)

[2] Some previous studies consider these expressions as grammatical, although they are few, as shown in (i), and many previous studies, including Burzio (1986: 318), have rejected their acceptability, as in (ii).

(i) a. I ***saw*** her ***be killed***. (Wilder 1992: 215)
b. I ***saw*** the dogs ***be all called*** back by their owners. (Guasti 1993: 133)
c. I {***saw*** / ***heard***} the teachers ***be fired***. (Sheehan and Cyrino 2017: 83)

(ii) a. *I ***saw*** him ***be rejected***. (Bolinger 1974: 69)
b. ?Mary ***saw*** the princess ***be kissed*** by the frog. (Lapointe 1980: 772)
c. We ***saw*** the dog (****be***) ***run*** over by lorry. (Declerck 1991: 490)
d. *?John ***saw*** Bill ***be examined*** by a doctor. (Clark and Jäger 2000: 19)
e. *We ***saw*** Spurs ***be beaten*** by United. (Huddleston and Pullum 2002: 1237)
f. ??I ***saw*** the patient ***be operated*** on by the doctor. (Miller 2002: 249)
g. ??The policeman ***saw*** the prisoner ***be arrested***. (Basilico 2003: 9)

h. *They ***saw*** Mary (***to***) ***be kicked*** by John. (Dixon 2005[2]: 252)
i. *Jane ***saw*** Peter ***be kissed***. (Gisborne 2010: 209)

For perception verbs other than *see*, Akmajian (1977) analyzes *watch NP be + past participle* as also ungrammatical, as in (iiia), but accepted by Lapointe (1980: 722). Furthermore, in the case of the perception verb *hear*, although Declerck (1983b) stated that *be* in *hear NP be + past participle* is generally deleted, Declerck (1991) and Dixon (2005[2]: 252) state that the deletion of *be* is obligatory.

(iii) a. *We ***watched*** the rebels ***be executed*** by the army. (Akmajian 1977: 440)
b. Mary ***watched*** the princess ***be kissed*** by the frog. (Lapointe 1980: 772)

(iv) a. I ***heard*** it [***be***] ***said*** that John was ill. (Declerck 1983b: 107)
b. I've never ***heard*** it (*__be__) ***said*** before. (Declerck 1991: 490)
c. She could ***hear*** the hymn (***being*** / *__be__) ***sung*** by the choir in the chapel. (ibid.)
d. *They ***heard*** Mary (***to***) ***be kicked*** by John. (Dixon 2005[2]: 252)

Dixon (2005[2]: 252) states that because the logical subject of the *be + past participle* is not the participant who initiates the perceptual event, the appearance of the *be + past participle* in the bare infinitival complement for perception verbs is not acceptable. However, this analysis fails to explain the acceptability of the following examples.

(v) a. I ***saw*** him {***get*** / *__be__} ***rejected***. (Bolinger 1974: 69)
b. I ***saw*** John {***get*** / ?__be__} ***arrested***. (Burzio 1986: 318)
c. John ***saw*** Bill {***get*** / *__be__} ***examined*** by a doctor. (Clark and Jäger 2000: 19)
d. I ***saw*** the patient {***get*** / ??__be__} ***operated*** on by the doctor. (Miller 2002: 249)
e. We ***saw*** Spurs {***get*** / *__be__} ***annihilated*** by United.
(Huddleston and Pullum 2002: 1237)
f. We ***watched*** the rebels {***get*** / *__be__} ***executed*** by the army.
(Akmajian 1977: 440)

(vi) a. We ***saw*** the rebels ***being executed*** by the army. (Gee 1977: 470)
b. I ***saw*** the children ***being beaten*** by their rivals. (Palmer 1987[2]: 199)
c. She could ***hear*** the hymn ***being sung*** by the choir in the chapel.
(Declerck 1991: 490)

d. We ***saw*** a circle ***being drawn*** by John. (Felser 1998: 363)

In addition, the following has been identified as a counterexample to the analysis in (ii).

(vii) I couldn't stand to ***see*** her ***be cremated***.
(Murakami Haruki. *Killing Commendatore*; Muraoka 2022c: 80)

On this matter, *see NP be + past participle* is used more often in American English recently while it was seldom detected in British English, and *see NP get + past participle* which has been considered grammatically correct by the previous studies, as shown in (v), is also mainly used in American English. From these facts, this paper concludes that the use of *see NP be + past participle* has increased since the 2010s, along with the use of *see NP get + past participle* in American English (cf. Muraoka 2022c).

[3] However, Kurokawa (1986: 160) states that (12b) is very subjective and sometimes sounds odd because it emphasizes the fact of what is seen, heard or felt. In contrast, (12a) is objective and is often used in daily speech. As mentioned in Note 13 of Chapter 1, the same is true for the present participial complements.

[4] As shown in 2.1.2 and 2.1.3, the conceptual simultaneity is allowed in the bare infinitival complement of causative verbs, as in (i), but according to some informers, it is impossible in the bare infinitival complement of perception verbs, as shown in (ii). This is because we human beings, except for fortune-tellers and prophets, cannot perceive an event in the future.

(i) a. Her early trauma ***made*** Mary ***seek*** therapy <u>later in life</u>. (Safir 1993: 59)
b. Please, God, ***make*** him ***have arrived,*** <u>by the time I get there</u>.
(Kayne 1984: 43)
c. We'll try to ***make*** him ***be singing*** "Coming through the Rye" <u>when Mary walks</u> in the room. (Akmajian et al. 1979: 40)

(ii) a. *I ***saw*** Mary ***seek*** therapy <u>later in life</u>. (Censored.)
b. *I ***saw*** him ***have arrived,*** <u>by the time I get there</u>. (Censored.)
c. *I ***saw*** him ***be singing*** "Coming through the Rye" <u>when Mary walks</u> in the room. (Censored.)

[5] Kirsner and Thompson (1976: 207), Declerck (1983a: 36-37), and Dik and Hengeveld (1991: 241-242) essentially agree with Huddleston and Pullum's (2002: 1237) statement that when the *to*-infinitive is used for the complement of the perception verb *see* whether the perception verb *see* is passive or not, it does not have its basic sense 'seeing,' but instead has the cognitive sense 'understanding.' Regarding the meaning of indirect perception indicated by the *to*-infinitival complement, Moulton (2009: 160) points out the possibility that it does not have the meaning of hearsay, citing the following example.

(i) John ***heard*** Mary ***to be*** out of tune (*from his friends). (Moulton 2009: 160)

Compare the following examples for the difference in meaning between the *to*-infinitival complement and *that*-clause, which indicate indirect perception.

(ii) a. I ***heard*** <u>from John</u> ***that*** it was raining. (Declerck 1983a: 32)
b. I ***heard*** <u>from John</u> ***that*** Peter had been fighting. (Dik and Hengeveld 1991: 247)
c. I ***saw*** <u>in the newspaper</u> ***that*** Peter had been fighting. (ibid.)
d. I ***see*** (e.g. <u>in the paper</u>) ***that*** the Hutton inquiry was a whitewash. (Gisborne and Holmes 2007: 3)

Based on these semantic differences, this paper assumes that the meaning of indirect perception indicated by the *to*-infinitival complement is the inference based on direct perception as Declerck (1991: 490) states. The semantic similarities and differences between the *to*-infinitival complements and *that* clauses can also be illustrated by the following examples.

(iii) a. Martha ***heard*** (from her friends) ***that*** Bob was out of tune, <u>but he wasn't</u>. (Moulton 2009: 199)
b. Martha ***heard*** Bob ***to be*** out of tune, <u>but he wasn't</u>. (Moulton 2009: 199)
c. I ***heard*** from my friends ***that*** she was out of tune ... <u>but I don't think she was</u>. (Moulton 2009: 146)
d. #I ***heard*** her ***to be*** out of tune ... <u>but I don't think she was</u>. (Moulton 2009: 146)

However, the perception verb *hear*, even in the active form, cannot take the *to*-infinitival complement in some cases, as shown in (iv).

(iv) a. I ***heard*** him ***to be*** very foolish. (Palmer 1987[2]: 189)
b. Mary ***heard*** the teacher ***to be dropping*** a book. (cf. Moulton 2009: 140)
c. *We ***heard*** him ***to be running*** down the street. (Rosenbaum 1967: 27)
d. ?I ***heard*** him ***to be*** famous. (Palmer 1987[2]: 199)
e. *We'd ***heard*** him ***to be*** an impostor. (Huddleston and Pullum 2002: 1237)

[6] According to Felser (1999: 165), the semi-auxiliary *be going to* can appear in the *to*-infinitival complement, whereas (*be*) *going to* cannot appear in the bare infinitival complement and the present participial complement, as in (i) and (ii).

(i) a. ?We ***saw*** John ***to be going to leave***. (Felser 1999: 38)
b. We ***saw*** the library ***to be going to collapse*** soon. (Felser 1999: 165)

(ii) a. *We ***saw*** John ***be going to leave***. (Felser 1999: 38)
b. *John ***saw*** Peter ***going to feed*** the cat. (Dik 1997: 112)
c. *Hannah ***heard*** the Wilsons ***going to take*** a trip to Egypt.
(Kirsner and Thompson 1976: 154)

On the other hand, the future expression (*be*) *about to*, which is semantically and syntactically similar to (*be*) *going to*, can appear in the complement of perception verbs, as in (iii).

(iii) While waiting in the floodlit colonnade of the mansion for his car, Hagen ***saw*** two women ***about to enter*** a long limousine already parked in the driveway ...
(M. Pozzo, *The Godfather.* p. 61.; Wada 2019: 332)

The difference in acceptabilities of (iib-c) and (iii) are due to semantic and syntactic factors. Firstly, the semantic factor is due to the preliminary process or preceding state indicated by (*be*) *going to*, as explained in 3.1.2. On the other hand, (*be*) *about to* does not indicate the preliminary process or preceding state, so (iii) is judged to be grammatically correct. Secondly, from the syntactic perspective, according to Wada (2019: 325), the structure of *be going to Inf* can be divided into the *be going to* part and the (*bare*) *infinitive* part whereas the structure of *be about to Inf* can be divided into the *be* part and the *about* + *to-infinitive* part. Hopper and Traugott (2003[2]: 69) and Hosaka

(2014: 94) state that the structure of *be going to* acquired a functional property through grammaticalization, as in (iv).

(iv) a. [Stage 1] She ***is going*** [***to*** visit Bill].
b. [Stage 2] (by reanalysis) She [***is going to***] visit Bill.
c. [Stage 3] (by analogy) She [***is going to***] like Bill.
d. [Stage 4] (by reanalysis) She [***is gonna***] {like / visit} Bill.

In other words, since *be going to* can be used in the form *ganna*, as in (ivd), it is one syntactic element and cannot be disrupted in its construction.

[7] According to Aikhenvald (2015: 253), the choice of evidentiality may depend on the choice made in the aspect system. Abraham (1998: 192) also states that the evidentiality is often triggered by perfectiveness. This paper assumes that imperfectiveness also affects evidentiality because the present participial complement indicates that only part of the event is perceived and that the perceiver has only limited evidence, due to the implication of its temporality.

[8] The following language facts may be considered as the evidence of this. According to Moulton (2009: 2-3, 142), the bare infinitival complement and present participial complement of the perception verbs express direct perception reports, and it is transparent or epistemically neutral, in that they do not implicate the beliefs of the subject in any way, as shown in (i) and (ii).

(i) a. Many people ***saw*** him ***write*** Japanese, but they all thought he was just doodling. (Felser 1999: 85)
b. Edina$_i$ ***saw*** Fred$_j$ ***leave*** the house early, but she$_i$ thought he$_j$ was just looking out the door. (Moulton 2009: 2)

(ii) a. Mary$_i$ ***saw*** Fred$_j$ ***driving*** too fast, but she$_i$ thought he$_j$ was riding a spaceship and so was fine with the speed. (Moulton 2009: 142)
b. Mary$_i$ ***saw*** Fred$_j$ ***drinking*** a soda, but she$_i$ thought he$_j$ was holding a can of grease in front of his face. (ibid.)

On the other hand, the *to*-infinitival complement for the active form of perception verbs indicates a belief or judgement, as in (iii).

(iii) John ***hears*** Mary ***to be*** out of tune. = John believes of what he hears that it is Mary out of tune. (Moulton 2009: 132)

Therefore, it is epistemically non-neutral, unlike the bare infinitival complement and the present participial complement, so the *to*-infinitival complement ascribes the belief to the subject, and that is why the following examples come out as a contradiction, as in (iv) (cf. Moulton (2009: 3)).

(iv) a. #John ***saw*** Mary ***to be holding*** a straw up to her cheek, but he thought she was not holding up the straw; he thought she was drinking a soda. (Moulton 2009: 139)

b. #Edina ***saw*** Fred ***to be*** a party-pooper, but she thought he wasn't. (Moulton 2009: 3)

The same acceptability is confirmed in the following examples.

(v) a. John$_i$ wondered if he$_i$ had ***seen*** the body ***move***. (Declerck 1983a: 37)

b. John$_i$ wondered if he$_i$ had ***heard*** the bell ***ring***. (Declerck 1983a: 39)

c. John$_i$ wondered if he$_i$ had ***seen*** the body ***moving***. (Declerck 1983a: 37)

d. *John$_i$ wondered if he$_i$ had ***seen*** the body ***to be*** that of a boy. (ibid.)

(vi) a. Mary$_i$ ***heard*** the teacher$_j$ ***drop*** a book, but she$_i$ believed that he$_j$ was slamming a door. (Moulton 2009: 140)

b. Martha$_i$ ***saw*** Fred$_j$ ***driving*** too fast, but she$_i$ believed he$_j$ wasn't. (Moulton 2009: 128)

c. #Martha$_i$ ***saw*** Fred$_j$ ***to be driving*** too fast, but she$_i$ believed he$_j$ wasn't. (Moulton 2009: 129)

The epistemic non-neutrality of the *to*-infinitival complement for the active form that we have seen above may be because indirect evidentiality leads to modality and direct evidentiality to non-modality (cf. Narrog (2009: 10)) and due to the fact that the *to*-infinitival complement for the active form indicates weak direct evidentiality and strong indirect evidentiality.

[9] This survey limited the subjects appearing in the complement of "see + NP + Inf" to "(adjective +) (noun +) noun" and "article + (adjective +) (noun +) noun," and manually classified those that were inanimate examples with a feature of "±movable" from the extracted data. Furthermore, in the examples detected in EEBO, those using nouns ambiguously existing between movable and non-movable are excluded.

[10] There are similar examples in the English Bibles, as in (ia), (id), (ie), (iia), (iid) and (iie). These expressions are not considered grammatically correct in Present-Day English, as shown in (72). However, these examples became constructions with the present participle, as in (ic), (if), (ig), (ih), (iif), (iig) and (iih).

(i) a. and þa he nyðer abeah, he ***geseah*** þa linwæda ***licgan***; and ne eode þeah in. (West Saxon Gospels. John 20: 5)

b. And whanne he hadde ynbowyd him, he syȝ þe scheetis putt, neþelees he entride not. (Wycliffe Bible Early Version. John 20: 5)

c. And whanne he stoupide, he ***sai*** the schetis ***liynge***, netheles he entride not (Wycliffe Bible Early Version. John 20: 5)

d. Then came Simon Peter following him, and went into the sepulcher, and ***saw*** the linen clothes ***lie***, (Geneva Bible. John 20: 5)

e. Then cometh Simon Peter following him, and went into the sepulchre, and ***seeth*** the linen clothes ***lie***, (Authorized Version. John 20: 5)

f. Simon Peter therefore also cometh, following him, and entered into the tomb; and he ***beholdeth*** the linen cloths ***lying***, (Revised Version. John 20: 5)

g. Then Simon Peter came, following him, and went into the tomb; he ***saw*** the linen cloths ***lying***, (Revised StandardVersion. John 20: 5)

h. Then Simon Peter came, following him, and went into the tomb. He ***saw*** the linen wrappings ***lying*** there, (New Revised StandardVersion. John 20: 5)

(ii) a. Witodlice Simon Petrus com æfter him, and eode into ðære byrgene, and he ***geseah*** linwæda ***licgean***, (West Saxon Gospels. John 20: 6)

b. Þerfore Symount Petre cam suynge hym, and he entride in to þe graue, and he syȝ þe scheetis putt, (Wycliffe Bible Early Version. John 20: 6)

c. Therfor Symount Petre cam suynge hym, and he entride in to the graue, and he say the schetis leid, (Wycliffe Bible Early Version. John 20: 6)

d. Then came Simon Peter following him, and went into the sepulcher, and ***saw*** the linen clothes ***lie***, (Geneva Bible. John 20: 6)

e. Then cometh Simon Peter following him, and went into the sepulchre, and ***seeth*** the linen clothes ***lie***, (Authorized Version. John 20: 6)
f. Simon Peter therefore also cometh, following him, and entered into the tomb; and he ***beholdeth*** the linen cloths ***lying***, (Revised Version. John 20: 6)
g. Then Simon Peter came, following him, and went into the tomb; he ***saw*** the linen cloths ***lying***, (Revised StandardVersion. John 20: 6)
h. Then Simon Peter came, following him, and went into the tomb. He ***saw*** the linen wrappings ***lying*** there, (New Revised StandardVersion. John 20: 6)

From these linguistic facts, it is assumed that the bare infinitival complement of perception verbs from Old English to Early Modern English did not have the aspectual property of the perfectivity.

[11] Furthermore, regarding expressions such as (82) and (83), the results of the informant survey suggest that they can be grammatical when they imply temporality due to natural disasters, as in (i), but such cases are quite rare (cf. Muraoka (2022a: 21)).

(i) a. He ***saw*** Christchurch Cathedral ***standing*** near the beach, which got washed away by the tsunami (caused by the earthquake). (Censored.)
b. He ***saw*** Christchurch Transitional Cathedral ***standing*** in the city. (Censored.)

The Christchurch Transitional Cathedral in (ib) is a real church, and according to the informant survey, a permanent reading is possible, but because of the inclusion of the word "transitional," a temporary interpretation can occur, as the awareness that the current location is temporary takes precedence. In relation to this, the same expression is allowed in the progressive form as in (ii). According to Goldsmith and Woisetschlaeger (1982) and Kira (2006: 38), even if the subject is currently in a permanent place, the speaker's psychological process may cause the use of the progressive form.

(ii) A caller to some other police station: "Help! Police! The statue of Tom Paine ***is standing*** at the corner of Kirkland and College streets!"
(Goldsmith and Woisetschlaeger 1982: 85)

Matsumura (1996: 71) states that under special circumstances such as an explosion or earthquake in (iii), the use of the progressive form with the subject of a fixed building

becomes possible. This is because the situation in which the building stands is considered temporary due to the uncertainty of when the situation will end.

(iii) a. After the bombing, only three buildings ***were*** still ***standing***.
(McCawley 1988: 228)

b. Richard Skate had taken a couple of hours away from the Ministry to see whether his house ***was*** still ***standing*** after the previous night's raid.
(G. Greene, "Men at Work" in *Twenty-One Stories*; Matsumura 1996: 71)

c. In the hush that followed this most recent earthquake, I heard my upstairs neighbor come running downstairs. "What should we do?" she asked. "So long as the building ***is*** still ***standing***, nothing," I told her.
(Kashino 1999: 130)

The same is true for the present participial complement of the perception verb *see*. According to informants, the perceptual events in (iv) are considered a temporary state due to explosions, and therefore they are acceptable.

(iv) a. After the bombing, I ***saw*** only three buildings still ***standing***. (Censored.)

b. But he actually ***saw*** that greenhouse ***standing*** in that bombed-out field.
(COCA. 2005. MAG)

In (v), Woisetschlaeger (1976), Goldsmith and Woisetschlaeger (1982: 84) and Kira (2006: 38) suggest that although a statue of Tom Paine is in a fixed location, the progressive form is used because the location is a temporary one. In (vi), the permanent presence of the rock, which cannot be moved by human power, is considered temporary in the speaker's consciousness because the rock, which was completely out of the speaker's sight, suddenly jumps into view. Therefore, the progressive form is used (cf. King (1983) and Kira (2006: 38)).

(v) The statue of Tom Paine ***is standing*** at the corner of Kirkland and College, and nobody thinks the deadlocked City Council will ever find an appropriate place for it. (Woisetschlaeger 1976: 74-75)

(vi) a. Morning dawns, and all of a sudden the Rock of Gibraltar ***is standing*** right in front of our eyes! (King 1983: 132)
b. When I walked onto the deck the Rock of Gibraltar ***was standing*** majestically in the distance. (King 1983: 133)
c. When you first enter the park there will be a statue standing on your right, and a small lake will ***be lying*** directly in front of you. (Dowty 1975: 583)
d. We reached the knoll and the peak ***was standing*** majestically above the glacier. (Huddleston and Pullum 2002: 171)

According to informants, such the interpretation also applies to the present participial complement of the perception verb *see*, as in (vii) (cf. Muraoka (2023: 36)).

(vii) a. As I stood on the bow of the boat looking around, the fog began to clear and I ***saw*** the peak of the mountain ***standing*** majestically on the glacier. (Censored.)
b. When I walked onto the deck, I ***saw*** the Rock of Gibraltar ***standing*** majestically in the distance. (Censored.)

[12] In practice, the stative verbs may also be used in the progressive form and the present participial complement of the perception verbs. First, regarding the progressive forms, the progressive forms of the stative verbs are usually not acceptable, as shown in (97). However, they could be acceptable when they imply a change of state, as in (i).

(i) a. Sylvia ***is resembling*** her mother more and more every year. (Croft 1998: 71)
b. My students ***are knowing*** more and more French these days. (Brugman 1988: 79)
c. John ***is recognizing*** the dog (John has Alzheimer's disease and does not always recognize his dog). (Cann et al. 2009: 195-196)

Perception verbs also generally do not co-occur with stative expressions such as individual-level predicates, as seen in (iia). However, according to Higginbotham and Ramchand (1997), the example in (iia) is also acceptable in environments where temporal change can be implied, as in (iib).

(ii) a. *I ***saw*** John ***six feet tall***. (Higginbotham and Ramchand 1997: 58)
b. If John's height on a given day depended upon what pills he took in the morning, then you could ***see*** John ***six feet tall***. (ibid.)

In this regard, an informant survey showed that the present participial complement of the stative verbs, which is generally unacceptable, also can be grammatical if implying change, as seen in (iii).

(iii) a. *I ***saw*** Tom still ***resembling*** his father. (Declerck 1981: 89)
b. I ***saw*** Tom ***resembling*** his father more and more every year. (Censored.)

[13] As seen in Note 2, the *be* + *past participle* in the bare infinitival complements of the perception verbs has increased since the 2010s, and this paper assumes that its establishment date is also in the 2010s, and considers the earlier ones to be ungrammatical, following many previous studies.

[14] Lastly, whereas *be seen to-Inf*, which is semantically similar to *see NP to-Inf* in that they indicate the inference, can co-occur with verbs other than *be* and *have*, as in (i), why did *see NP to-Inf* co-occurring with verbs other than *be* and *have* (= (ii)) decline?

(i) a. Sandy ***was seen to leave*** early (by Kim). (van Valin and LaPolla 1997: 473)
b. He ***was seen to walk*** away. (Palmer 1987[2]: 189)
c. He ***was seen to enter*** the house. (Watanuki et al. 1994: 143)
d. John ***was seen to draw*** a circle. (Kuwabara and Matsuyama 2001: 123)

(ii) a. *They ***saw*** her ***to represent*** the other tradition. (Bolinger 1975[2]: 399)
b. *We ***saw*** John ***to steal*** the car. (Gee 1977: 480)
c. *Bill ***saw*** Mary ***to eat***. (Nunes 1995: 359)
d. *We ***saw*** Kim ***to leave*** the bank. (Huddleston and Pullum 2002: 1237)

The factors involved are speculative, but it may be due to the possibility that the verb *see* may come to indicate an action with a similar meaning to *meet*, and the *to*-infinitive may have been interpreted as a clause denoting purpose, i.e., *see NP to-Inf* may have been interpreted as *see NP (in order) to-Inf*.

[15] However, Huddleston and Pullum (2002: 1237), unlike other previous studies, consider the example of *be heard to-Inf* to be ungrammatical, as in (i). This is due to the fact that the perception verb *hear*, even in the active form, cannot take the *to*-infinitival complement in some cases, as shown in (ii).

(i) a. *He ***was heard to be*** an impostor. (where *see* would be quite normal) (Huddleston and Pullum 2002: 1237)
b. Sills ***was heard to sing*** at the Opera House. (Kirsner 1977: 174)
c. Bill could ***be heard to be talking*** to himself. (Felser 1999: 32)
d. John ***was heard to have*** an accent. (Hornstein et al. 2008: 200)

(ii) a. I ***heard*** him ***to be*** very foolish. (Palmer 1987[2]: 189)
b. Mary ***heard*** the teacher ***to be dropping*** a book. (cf. Moulton 2009: 140)
c. *We ***heard*** him ***to be running*** down the street. (Rosenbaum 1967: 27)
d. ?I ***heard*** him ***to be*** famous. (Palmer 1987[2]: 199)
e. *We'd ***heard*** him ***to be*** an impostor. (Huddleston and Pullum 2002: 1237)

Furthermore, the *to*-infinitive (or the preposition *to*) does not co-occur with the present participle when the perception verbs taking the present participial complement become the passive form, as in (iii).

(iii) a. John ***was seen*** (****to***) ***crossing*** the street. (Kurafuji 2002: 13)
b. *John ***was heard to singing*** the song. (Censored.)

As for the past participial complement for the passive form of the perception verbs, it is not grammatically correct according to previous studies such as Palmer (1974: 202).

(iv) a. *The children ***were seen beaten***. (Palmer 1987[2]: 199)
b. ?The car must have ***been seen stolen***. (Quirk et al. 1985: 1207)

Although this paper does not discuss it in detail, Takizawa (2011: 79) states that these expressions as in (iv) are not used because the two past participles are consecutive.

[16] Regarding the bare infinitive in (125c), Bolinger (1975[2]: 399) explains that whereas it can be grammatically correct, as in (ia-b), this type is not an established practice and the examples that use verbs other than *go* and *leave* are ungrammatical.

(i) a. She ***was*** {***seen*** / ***heard***} ***go***. (Bolinger 1975[2]: 399)
b. She ***was heard leave.*** (ibid.)
c. *She ***was seen crack*** a nut. (ibid.)
d. *She ***was seen write*** a letter. (ibid.)

[17] Some previous studies such as Higginbotham (2009: 49) and Gisborne (2010: 234) have dealt with the grammaticality of (139a), as in (i).

(i) a. Mary ***saw*** John ***not play*** golf last Saturday. (Higginbotham 2009: 49)
b. John ***saw*** Mary ***not smoke***. (Gisborne 2010: 234)

According to Higginbotham (2009: 49), the acceptability of (ia) depends upon conceiving the complement as expressing something stronger than negation, and contributing to the complement as a whole meaning, such as: John pointedly refrained from playing golf; or, John did not play golf when he might have been expected to; or, more figuratively, John played golf so poorly that he could hardly be said to have been playing the game; or something similar. What Mary saw in (ia) is an event suspending the prospect of John's playing golf, or interfering with his playing it properly: what sort of event must be gleaned from the context. If this is right, then cases like (i) should not be understood in terms of negative events. Gisborne (2010: 234-235) also states that (ib) would be grammatical when the subject expected the perceptual object to smoke but it refrains from smoking, because it would be worth a comment. In sum, the acceptability for the complements of perception verbs with negation depends on the presence or absence of preconditions such as the expectations. Felser (1999: 75) cites the following examples, as in (ii).

(ii) a. Yesterday morning, we could {***see*** / ***hear***} the neighbour's car ***not starting*** again (i.e., we saw or heard it refrain from starting). (Felser 1999: 75)
b. It is your job to entertain the customers—so if I ever ***see*** you ***not dancing*** again, I shall give you the sack! (ibid.)

However, most of the previous studies that consider (139a) grammatical provide examples with the verb *see*, but no other verbs are mentioned, except for (iia). Mittwoch (1990: 108) points out that sentences below are simply grotesque, on the grounds that an event whose occurrence is explicitly denied cannot possibly constitute the object of immediate sense perception.

(iii) a. #I ***heard*** the baby ***not cry***. (Mittwoch 1990: 108)
b. #I ***felt*** the wasp ***not sting*** me. (ibid.)
c. #I ***watched*** the baby ***not eat*** his porridge. (ibid.)

Mittwoch (1990: 108) further states that such examples are at best borderline, denizens of some limbo region between the grammatical and the deviant and adds that, in five years of looking out for real-life utterances of such sentences, she never encountered a single example, 'not even one meant ironically.' Additionally, in large corpora such as BNC and COCA, not a single example is detected. So, this study analyzes (139a) as ungrammatical, following the previous study such as Mittwoch (1990), although a large-scale and highly elaborate informant survey would be needed to close the gap between the view of Mittwoch (1990) and the views of Higginbotham (2009) and Gisborne (2010) in the acceptability of (139a).

[18] Furthermore, the following language facts also may be considered as evidence of this. According to Felser (1999: 85) and Moulton (2009: 142), the *to*-infinitival complement for the passive form of perception verbs is epistemically non-neutral, as is the case with the *to*-infinitival complement for the active form. Therefore, the following examples come out as a contradiction, as in (i).

(i) a. #He ***was seen to write*** Japanese, but they all thought he was just doodling. (Felser 1999: 85)
b. #Fred$_i$ ***was seen to be driving*** too fast by the police$_j$, but they$_j$ thought he$_i$ wasn't. (Moulton 2009: 142)
c. #Mary ***was heard*** by her friends ***to be singing*** out of tune, but they thought she was in tune. (Moulton 2009: 143)
d. *John$_i$ wondered if a bell had ***been heard*** by him$_i$ ***to ring***. (Declerck 1983a: 39)
e. *John$_i$ doubts if the body ***was seen*** by him$_i$ ***to move***. (ibid.)

On the other hand, the present participial complement for the passive form of perception verbs is epistemically neutral, as is the case with the present participial complement for the active form, so the following example does not come out as a contradiction, as in (ii).

(ii) Fred ***was seen*** by Mary ***drinking*** a soda, but she thought he was just holding a can of grease in front of his face. (Moulton 2009: 142)

The epistemic non-neutrality of the *to*-infinitival complement for the passive form, as is the case with the *to*-infinitival complement for the active form, may be because the indirect evidentiality leads to modality and the direct evidentiality leads to non-modality (cf. Narrog (2009: 10)) and because the *to*-infinitival complement for the passive form indicates weak direct evidentiality and strong indirect evidentiality.

[19] Although the adverb *apparently* generally has the function of reducing the definiteness of an utterance (cf. Palmer (1990[2]: 51), Greenbaum (1969: 204)), Konishi (1989: 178-180) and Hosaka (2014: 3-4) note that there are also some usages of *apparently* that strengthen the definiteness of an utterance. However, according to the Wisdom English-Japanese Dictionary of 3rd and 4th editions, such usage is rare.

[20] Kirsner and Thompson (1976) also points out that the perceiver of the perception verb *see* is not agentive, as in (i).

(i) The policeman {deliberately / carefully / conscientiously} {****saw*** / watch} the children ***cross*** the street. (Kirsner and Thompson 1976: 226)

Kuno (1972), Furuya (2012) and Yasui and Yasui (2022) also provide similar examples, as shown in (ii).

(ii) a. ??/****See*** a dog ***run***! (Furuya 2012: 59)
b. ****Hear*** what I am telling you. (Kuno 1972: 204)
c. ***See*** {the movie / *this picture}. (ibid.)
d. {Look at / ****See***} this picture. (Yasui and Yasui 2022: 328)
e. {Listen to / ****Hear***} the music. (ibid.)

[21] Kirsner (1977) provides other evidence that the passive form of perception verbs indicates accidental perception, as in (i) and (ii).

(i) a. ?President Roosevelt ***was heard to declare*** war on Japan. (Kirsner 1977: 174)
b. President Roosevelt ***was heard to curse*** under his breath. (ibid.)

(ii) a. ?Nureyev ***was seen*** by thousands ***to dance*** at the concert hall.
(Kirsner 1977: 174)
b. Nureyev ***was seen*** by a reporter ***to leave*** by the side door. (ibid.)

[22] The causative verb *have* also shows similar acceptability, as in (i).

(i) Oh look, Lou ***has*** Charlie {***dance** / **dancing***}! (Belvin 1993: 62)

[23] Fukumura (1959: 1260) states that the bare infinitive in (170j) is used for poetic necessity. However, this analysis lacks validity, as there are previous studies denoting that the *to*-infinitival complement for the passive form of perception verbs was also used for phonological factors, and there are no previous studies that similarly analyze the bare infinitival complement for the passive form of the causative verb *make* and *let*.

[24] Even in the English Bibles, there is no diachronic consistency in the use of the non-finite verbs that appear in the complement for the passive form of perception verbs, as in (i).

(i) a. Now Jonathan and Ahimaaz stayed by En-rogel; and a maidservant used to go and tell them; and they went and told king David: for they might not ***be seen to come*** into the city. (Wycliffe Bible Late Version. 2 Samuel 17: 17)
b. Now Jonathan and Ahimaaz stayed by En-rogel; and a maidservant used to go and tell them; and they went and told king David: for they might not ***be seen to come*** into the city. (Revised Version. 2 Samuel 17: 17)
c. Jonathan and Ahimaaz were waiting at En-rogel; a servant-girl used to go and tell them, and they would go and tell King David; for they could not risk ***being seen entering*** the city.
(New Revised Standard Version. 2 Samuel 17: 17)

[25] As shown in the biblical example in (i) and (ii), it is possible that the *hear φ say* type may have declined due to the rise of expletives.

(i) a. A people great and tall, euen the children of the Anakims, whom thou knowest, and of whom thou hast ***heard say***, Who can stand before the children of Anak? (Geneva Bible. Deuteronomy 9: 2)

b. A people great and tall, the children of the Anakims, whom thou knowest, and of whom thou hast ***heard say***, Who can stand before the children of Anak! (Authorized Version. Deuteronomy 9: 2)

c. a strong and tall people, the offspring of the Anakim, whom you know. You have heard it said of them, "Who can stand up to the Anakim?"
(New Revised Standard Version. Deuteronomy 9: 2)

(ii) a. And the people of the hoste ***heard saye***, Zimri hath conspired, and hath also slayne the King. Wherefore all Israel made Omri the captaine of the hoste, king ouer Israel that same day, euen in the hoste.
(Geneva Bible. 1 Kings 16: 16)

b. And the people that were encamped ***heard say***, Zimri hath conspired, and hath also slain the king: wherefore all Israel made Omri, the captain of the host, king over Israel that day in the camp.
(Authorized Version. 1 Kings 16: 16)

c. and the troops who were encamped heard it said, "Zimri has conspired, and he has killed the king"; therefore all Israel made Omri, the commander of the army, king over Israel that day in the camp.
(New Revised Standard Version. 1 Kings 16: 16)

However, given the overlap between the period of the establishment of expletives and the period when *hear φ say* was commonly used, it is difficult to state that the emergence of expletives was the decisive factor in the decline of *hear φ say*.

4. Conclusion

So far, this paper has analyzed the restriction on the infinitival selection in the complements of the causative and perception verbs. Firstly, the active form of causative verbs takes the bare infinitive (or the *to*-infinitive) as its complement, depending on the meaning of the matrix verbs. For example, because the causative verb *make* denotes the compulsory causation, the bare infinitive is used to indicate the aspect of perfectivity, reflecting the forced nature of the matrix verb, as shown in (1a) and (1b). The causative verbs *have* and *let* also show that there is no resistance to the causative action, so the bare infinitive indicating perfectivity is used in their complements, depending on the meanings of the verbs. On the other hand, the *to*-infinitive denotes futurity and the processual nature of the causative action. This semantic conflict between causative verbs and non-finite verbs does not allow the causative verbs to take the *to*-infinitive in the complements, as shown in (1c), (1d), (1e) and (1f). On the other hand, the causative verb *get*, which indicates persuasion with hardship or effort and its causative action with resistance, cannot be used with the bare infinitive, as shown in (1g) and (1h), because the meaning of the causative verb *get* and the bare infinitive which indicates perfectivity and simultaneity are semantically incompatible.

(1) a. I ***made*** John ***wash*** the dishes. (Blanco 2011: 147)
b. *I ***made*** John ***to wash*** the dishes. (ibid.)
c. The doctor ***had*** his patient ***breathe*** deeply. (Baron 1977: 53)
d. *The doctor ***had*** his patient ***to breathe*** deeply. (ibid.)
e. The judge ***let*** Spiro ***go***. (Noonan 2007[2]: 56)
f. *The judge ***let*** Spiro ***to go***. (ibid.)
g. The doctor ***got*** his patient ***to breathe*** deeply. (Baron 1977: 53)
h. *The doctor ***got*** his patient ***breathe*** deeply. (ibid.)

However, according to Mustanoja (1960: 533), the active form of the causative verb *make* diachronically took both the bare infinitive and *to*-infinitive in the complement, and the infinitival selection in the complement for the active form of the causative verb was diachronically unstable. The use of *make NP to-Inf*, which is not grammatically correct in Present-Day English, was found mainly in Middle English and Early Modern English (cf. Yamamura (2015) and Iyeiri (2018)). As for the decline of the use of the causative verb *make* with the *to*-infinitival complement, this survey has pointed out the possibility that *make NP to-Inf* was widely used as the causative verb *make* indicated not only the compulsory causation, but also the variety of the causative events; however, it began to

decline due to the establishment of the causative verb *make* with the meaning of the coercive causation, the rise of the lexical causative verbs and other causative verbs such as *cause* and the semantic competition with them in Modern English.

The active form of the causative verb *let* in Present-Day English also takes the bare infinitive and not the *to*-infinitive, as shown in (1e) and (1f). However, the active form of the causative verb *let* also took both the bare infinitive and *to*-infinitive in its complement in early English. The use of *let NP to-Inf* is found from Middle English to Early Modern English, but it began to decline because the semantic connection between the causative *let* and the bare infinitive became stronger due to the rise of the idiomatic usage of *let* such as in "commands to third parties" and "prayers."

The passive form of the causative verbs also takes the bare infinitive or *to*-infinitive as its complement. The passive form of the causative verb *make* takes the *to*-infinitive in its complement because the passive form of the causative verb *make* indicates the sense of annoyance or resistance caused by the coercive causative action and the meaning of the passive form of the causative verb *make* is compatible with the *to*-infinitive, which has the future orientation or processual nature. Diachronically, the passive form of the causative verb *make* also took both the bare infinitive and *to*-infinitive as its complement. However, the use of *be made Inf* began to decline due to the establishment of the causative verb *make* with the meaning of coercive causation in Late Modern English and its implications of annoyance with and resistance against coercive causation.

On the other hand, the passive form of the causative verb *let* takes the bare infinitive in its complement in Present-Day English because it indicates that the causee's activity or state automatically occurs and because the meaning of non-interference in the causative verb *let* does not lose its simultaneity, even in the passive form. From these linguistic facts, it is clear that the choice of infinitive found in the complement of causative verbs varies according to the meaning of the causative verbs, in both active and passive forms.

The perception verbs also take the bare infinitive in the complement for the active form in order to indicate the perfectivity and simultaneity of the perceptual event. On the other hand, the present participial complement for the active form indicates imperfectivity and temporality, as in (2).

(2) a. I ***saw*** him ***cross*** the road. (From one side to the other.) (Allen 1974[5]: 186)
b. I ***saw*** him ***crossing*** the road. (On the way to the other side.) (ibid.)

The perception verbs also take the *to*-infinitive as the complement, but only to indicate indirect perception or inference based on direct perception, and the verbs used in the complement are limited to verbs such as *be* and *have*, as in (3).

(3) a. I ***saw*** them ***to be*** obnoxious. (Bolinger 1974: 66)
b. I ***saw*** the house ***to have been*** repainted. (Declerck 1991: 490)
c. *We ***saw*** John ***to steal*** the car. (Gee 1977: 480)
d. *We ***saw*** Kim ***to leave*** the bank. (Huddleston and Pullum 2002: 1237)

On the other hand, the passive form of perception verbs takes the *to*-infinitival complement regardless of the type of verb, unlike the *to*-infinitival complement for the active form, but it does not take the bare infinitive in its complement. The passive form of perception verbs indicates weak direct evidentiality such as indirect perception or inference based on the direct perception. Hence, there is no semantic conflict between the *to*-infinitive in (4a), which do not have strong direct evidentiality, and the passive form of the perception verbs, which also indicates weak direct evidentiality. In stark contrast, the bare infinitive in (4b) has the strong direct evidentiality, which is inconsistent with indirect perception or inference indicated by the passive form of perception verbs. Therefore, the bare infinitive in (4b) is not acceptable.

(4) a. The dog ***was seen to cross*** the road. (Gisborne 2010: 122)
b. *The dog ***was seen cross*** the road. (Gisborne 2010: 198)

However, there were some counterexamples to this analysis until the 17th century, as shown in (5).

(5) a. to þam Pentecosten ***wæs gesewen*** innan Barrucscire æt anan tune blod ***weallan*** of eorþan (PC1100, 3f.; Moessner 1989: 160)
b. through the gloom ***were seen*** Ten thousand Banners ***rise*** into the Air.
(Milton, PL. 1, 544-5; Ono and Ito 2009: 141)

As we have seen so far, the strong direct evidential nature of *be seen Inf* in Present-Day English is due to the bare infinitive's aspect of perfectivity. However, this aspect of perfectivity was also ambiguous in Modern English. As evidence of this statement, the examples which are ungrammatical in Present-Day English existed in Modern English such as the perception verb *see* with the inanimate logical subject with the movable

feature and the bare infinitive of the positional verbs, the perception verb *see* with the inanimate logical subject with the non-movable feature and the bare infinitive or present participle of the positional verbs, and the use of stative verbs in the bare infinitival complement. Therefore, it is assumed that the construction of *be* {*seen* / *heard*} *Inf*, which is not grammatically correct in Present-Day English, was used in practice without the semantic conflict between the bare infinitive, which has strong direct evidentiality, and the passive form of perception verbs, which indicates weak direct evidentiality such as the indirect perception or inference, because the aspect and evidentiality of the bare infinitive in *be* {*seen* / *heard*} *Inf* was unstable. Therefore, this analysis is not negated by the diachronic data and can further explain why such examples could exist.

From these analyses, it can be said that while the causative verbs use the different infinitives according to their meanings regardless of the voices, the passive form of perception verbs denotes indirect perception or weak evidentiality due to the absence of the perceiver, and thus is incompatible with the bare infinitive indicating the strong direct evidentiality, and the use of the *to*-infinitives or present participle is obligatory according to the meaning of indirect perception or weak direct evidentiality indicated by the passive form of perception verbs.

Furthermore, it could be argued that the restrictions on the choice of infinitive in the complement for the active and passive forms of causative and perception verbs are heavily influenced by the aspect (or evidentiality reflecting the aspect) of the infinitives inside their complements, which was established in Modern English. By assuming that the restriction of the infinitives in the complements of causative and perception verbs is influenced by the aspect (or evidentiality) of the infinitives inside the complements, we can conclude that the syntactic structure of the complements of the causative and perception verbs has the functional category that authorizes predication (PredP) and the functional category that provides morphological and semantic features to the non-finite verbs inside the complement (AspP), as explained in the introduction, and both active and passive forms of causative and perception verbs are derived by the same structure.

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