

# The Incompatibility of Perception Verb with *to*-Infinitive

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**Kwon, Yonghyun. 2011. The Incompatibility of Perception Verb with *to*-Infinitive.** *The Linguistic Association of Korea Journal*. 19(2). 1-14. It is well-known that the perception verb does not accept the *to*-infinitive as its complement in the active. However, not many attempts have been made to explore what motivates the *to*-infinitive not to be allowed in the active. The grammatical phenomenon is often treated as much as if it were simply a stipulation or a rule. Against this backdrop, this article is going to support that the disqualification of the *to*-infinitive for the complement of the perception verb is well-motivated. This research is focused on the investigation of why the *to*-infinitive cannot be accepted in the active. It is going to suggest here that some inherent semantic property of the perception verb contributes to its incompatibility with the *to*-infinitive in the active.

**Key Words:** perception verb, bare infinitive, *to*-infinitive, active.

## 1. Introduction

The type of verb determines the possible proper forms of the complement. For example, verbs such as *want*, *desire*, *allow* choose the *to*-infinitive as their complements, as in (1).

- (1) a. I want you *to listen* to me.  
b. He allowed me *to skip* the class.

However, there are special types of verb which do not allow the *to*-infinitive as their complements. Among them is the class of perception verb.<sup>1)</sup>

We are going to focus on the perception verb such as *see*, *watch*, *hear*, *notice*, *observe*, *feel*, etc. With this class of verb, the *to*-infinitive is known not to qualify for their complements. It is shown in (2).

- (2) a. \*I heard him *to sing*.  
 b. \*I saw him *to leave*.

*Heard* and *saw* are followed by the *to*-infinitive (*to sing*, *to leave*) in (2). The selection of the *to*-infinitives causes the two sentences to be ruled out. If the *to*-infinitives are replaced by the bare infinitive, they turn back to normal, as seen in (3).

- (3) a. I heard him *sing*.  
 b. I saw him *leave*.

The perception verb accepts some other forms of verb as well as long as they are not a *to*-infinitive.<sup>2)</sup> The present participle can be licensed also as their complements, as in (4).

- (4) a. I heard him *singing*.  
 b. I saw him *leaving*.

The only difference between (3) and (4) is that the act of singing or leaving in (4) was in progress at the time when the person (*I*) heard or saw whereas the whole process of singing or leaving was completed in (3). The choice of either

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1) Apart from the perception verb, some causative verbs also such as *make*, *let*, and *have* also do not select the *to*-infinitive as their complements. For more details as to their syntactic behaviors, see Palmer (1988: 195), Quirk and Greenbaum (1973: 365-6), Swan (1997: 413), and Leech & Svartvik (1994: 393). In this respect, the perception verb and the causative verbs above had a syntactic similarity. However, they do not share the same semantic property at all. So what motivates the causative verbs not to allow the *to*-infinitive should be separately treated.

2) According to the closeness principle, the issue of whether to take the *to*-infinitive or the bare infinitive as a complement in (1, 3) is to do with actuality or potentiality. In (1a), the actuality of your listening to me is not guaranteed. It has only a potential value. In contrast, it is understood in (3a) that he actually sang. The event is actual.

the bare infinitive or the present participle depends on whether the acts are already completed or still in progress.<sup>3)</sup>

If *to* is put before the present participle, the insertion triggers (4a, b) to be unacceptable, as seen in (5).

- (5) a. \*I heard him *to be singing*.  
 b. \*I saw him *to be leaving*.

(2, 5) demonstrate that the perception verb does not go together with the *to*-infinitive in the active.<sup>4)</sup> There are more instances where the *to*-infinitive does not qualify for the complements of the perception verb. Let us examine (6, 7) together.

- (6) a. I heard him *beaten*.  
 b. I saw him *beaten*.

- (7) a. \*I heard him *to be beaten*.  
 b. \*I saw him *to be beaten*.

(6) show that the past participle is allowed as the complements of the perception verb. But still the *to*-infinitive is not agreeable with the perception verb in (7).

This research is going to discuss what motivates the *to*-infinitive not to be allowed in the complement position of the perception verb in the active. However, the unacceptability of the *to*-infinitive is valid with active constructions only. *To* must be inserted in the passive counterparts, as in (8, 9).

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3) Jespersen (1933: 341) compares the two different constructions. He says that the present participle form is more descriptive. According to Eastwood (1994: 173), a bare infinitive means the complete action, but the present participle means action for a period of time, whether or not we see the whole action.

4) (5a, b) are not acceptable as long as they maintain the perceptive reading. However, if they have a cognitive reading, then they are acceptable. The possible cognitive readings of (5a, b) are: (5a') I heard that he was singing, (5b) I saw that he was leaving. The grammatical judgement of (5a, b) depends on whether the reading is perceptive or cognitive. However, the grammatical judgement of (5) is based on the perceptive status of *hear* and *see*, not on the cognitive status.

(8)<sup>5)</sup> a. He was heard *to sing*.

b. He was seen *to leave*.

(9) a. \*He was heard *sing*.

b. \*He was seen *leave*.

Our discussion here is going to be focused on the issue of the incompatibility of the *to*-infinitive with the perception verb in the active. The issue of the *to*-insertion in the passive<sup>6)</sup> is not going to be dealt with here. It is because the need of the *to*-insertion in the passive construction is supposed to be the result of an intervention of some other syntactic factors than the perception verb in itself. Therefore our discussion here is confined to the perception verb and its active construction only.

## 2. Review of Dixon (2005)

There have not been many attempts to explain why the perception verb does not accept the *to*-infinitive in the active. However, the issue is discussed in Dixon (2005: 251-3). He compares the bare infinitive in the active and the *to*-infinitive in the passive, and says that the different choice is significantly

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5) The *to*-insertion with the passive in (8) seems to be involved with a general syntactic constraint. It is to do with the sequence of verb+verb. In this case, the verb is all a type of full verb. The auxiliary verbs are not counted in. The constraint requires that when two full verbs occur successively together, the second verb should take the form of *to*-infinitive or *-ing*. The bare infinitive is not allowed. For example, the sentence *I want to go* has two full verbs (*want*, *go*) in it. They occur successively without anything in the middle. In this case, the second verb *go* has a *to*-infinitive. The sentence *I want go* is not allowed because the second verb is a bare infinitive and so the constraint is not honored. In the case of (8a), the full verbs are *heard* and *sing*. When they occur successively, the second verb should take a *to*-infinitive or *-ing*. (9a) is not correct because it does not observe the constraint. When the second verb takes a form of *-ing*, the sentence would be *He was heard singing*. This one also is accepted.

6) The *to*-insertion is not needed even in the passive if the complements are in the form of present participle or past participle. For example, the following sentences without *to* are correct: (i) He was heard singing / (ii) He was heard beaten.

related to the different degree of involvement in the two constructions. Let us review how the idea of involvement works.

- (10) a. They saw/heard/noticed John *kick* Mary.  
 b. John was seen/heard/noticed *to kick* Mary.

The verbs (*saw, heard, noticed*) in (10a) fall into the category of perception verb. They cause (10a) to take the bare infinitive (*kick Mary*), not the *to*-infinitive (*\*to kick Mary*). In contrast, the *to*-infinitive (*to kick Mary*) must be chosen in the passive instead of the bare infinitive in (10b). As to the presence or absence of *to* in (10), the difference is explained as below:

These (10a, b) do demonstrate the semantic characteristics of a Modal (FOR) TO complement—they describe John becoming involved in the activity of kicking Mary. (Note that if the complement clause is passivised we get an unacceptable sentence *\*They saw/heard/noticed Mary (to) be kicked by John*, simply because Mary—who is now complement clause subject—is not the participant who initiates the activity.) *See, hear, and notice do*, in this construction, imply direct and often spontaneous perception of some activity. It may be because of this that the *to* is omitted. (Dixon, 2005: 252)

According to Dixon's view, direct involvement is a decisive factor. In (10a), his view is that *to* is not needed in the active because John is involved in the activity of kicking Mary and because the subject (*they*) of the main clause is more directly involved in the act of perception. On the other hand, (10b) is a passive with a *to*-infinitive complement, so John is not directly involved in the activity of kicking Mary.

According to Dixon, the indirectness needs the *to*-insertion in the passive. When *to* comes in between *John* and *kick* in the passive,<sup>7)</sup> the insertion makes the syntactic integration between *John* and *kick* less. The syntactic distance causes *John* to be less directly involved in the activity of kicking. The way he explains is that the presence of the *to*-infinitive in the passive brings about some syntactic distance, which leads to less semantic bond and less involvement. In contrast,

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7) Dixon (2005: 252) says, "The passive verges towards being the description of a state, and that is why *to* is included."

the absence of *to* in the active increases the syntactic integration, which in turn enhances the semantic bond. So the closer semantic bond enhances the more direct involvement.<sup>8)</sup>

The following examples (11) are taken to support his idea of direct involvement.

- (11) a. John helped me *to write* the letter.  
 b. John helped me *write* the letter.

(11a) has a *to*-infinitive complement while it is a bare infinitive in (11b). The difference between (11a, b) is explained away:

Sentence (11a) might be used to describe John facilitating my writing the letter—suppose that he provided pen and ink, suggested some appropriate phrases and told me how one should address a bishop. But, in this scenario, I actually wrote the letter myself. Sentence (11b), on the other hand, might be used to describe a cooperative effort where John and I did the letter together, perhaps writing alternate paragraphs. Sentence (11b)—without *to*—is likely to imply that John gave direct help... In contrast, (11a) is more likely to be used if he gave indirect assistance.<sup>9)</sup> (Dixon, 2005: 251-2)

According to his analysis, the choice of a *to*- or bare infinitive is determined by the extent or degree to which John is involved with the help. If it is a direct involvement, *to* is not needed.<sup>10)</sup> If the assistance is indirect, *to* is needed. But it is questionable how his theory of directness is psychologically real.

His analysis does not sound persuasive because he admits that his theory of directness does not apply well to other cases.

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8) Basically, Dixon follows and accepts the idea of what is termed semantic bond and syntactic integration in Givón (1990: 516).

9) The numbers (11a, b) are adapted here for the purpose of consistency. Originally, they are (50a, b).

10) Dixon (2005: 251) employs his theory of directness to account for the presence or absence of *to* in the examples: (i) Mary made/had/let John drive the car. (ii) John was made to drive the car.

This does not, however, explain why *force*, which often relates to coercion, takes *to*; and why the causative sense of *have*, which may involve some indirect means, omits *to*. (Dixon, 2005: 252)

If the factor of directness is really at work, such verbs as *order*, *command*, *force*, *compel* should take the bare infinitive as their complements in the active constructions, considering that such verbs are directly involved in making things happen. However, they always take the *to*-infinitive whether in the active or in the passive in spite of their direct involvement. It suggests that his idea of direct or indirect involvement is not well-grounded.

Biber *et al.* (1999: 737) compares the *to*-infinitive or the bare infinitive with regard to the *help*-construction. According to them, the difference comes from dialect and register factors rather than from the involvement factor. With reference to the preference of a bare infinitive over a *to*-infinitive, they say, "A bare infinitive clause is strongly preferred over a *to* clause, to avoid the sequence of *to* + verb + *to* + verb." It implies that the choice between the *to*-infinitive and the bare infinitive is more likely to be determined by the stylistic consideration rather than by the semantic difference.

Swan (1997: 247) owes the choice of the bare or *to*-infinitive in the *help*-construction to the degree of formality. According to him, the infinitive without *to* is rather informal in British English. All in all, the presence or absence of *to* does not seem to have much to do with the degree of direct involvement.

### 3. Inherent Property of Perception Verb

The theory of directness does not sound very reasonable. The motivation for the choice of the bare infinitive in the active must be found somewhere else. The alternative view that this research will suggest here is that the avoidance of the *to*-infinitive with the perception verb has more to do with the inherent characteristic of the *to*-infinitive.

It is not deniable that essentially the *to*-infinitive has the strong tendency to indicate that events marked by the *to*-infinitive are futuristic. The futuristic feature of the *to*-infinitive is not alive all the time. Sometimes the feature is lost.

However, when we consider that the *to* in the infinitive originated in the preposition *to*,<sup>11)</sup> the *to*-infinitive is supposed to keep the futuristic feature more or less. The inherent semantic property of future in the *to*-infinitive still remains strong with some syntactic structures. Let us see the futuristic characteristic of the *to*-infinitive here in (12).

- (12) a. He wanted me *to read* the book the next day  
 b. He wants me *to leave* the next day.

In (12a), the *to*-infinitive (*to read the book*) indicates that the act of reading the book happens later than the act of wanting, if the latter act actually happens.<sup>12)</sup> For example, if the day of wanting is two days ago, the day of reading the book is the next day. The two different acts of wanting and reading do not happen at the same time. There is a temporal gap between the two acts. The time of reading, marked by the *to*-infinitive, comes later than that of wanting.

The same logic applies to (12b). The time of his wanting is in the present, and the time of leaving comes later than that. The presence of the *to*-infinitive suggests that events marked by the *to*-infinitive come later than the time point of reference if they actually happen. However, the actuality of the events (*me to read the book the next day* in (12a), and *me to leave the next day* in (12b)) is not guaranteed. The two events are just potential.

The futuristic property of the *to*-infinitive is much more noticeable in (13).

- (13) a. I remember *meeting* her last week.  
 b. I remember *to meet* her next week.

Obviously, *remember* accepts both *to*-infinitive and gerund, as seen in (13). The choice of *to*-infinitive or gerund depends on when the event of meeting her

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11) See Palmer (1988: 160, 191-4) for more details concerning the semantic feature of futurity with the *to*-infinitive. Seven classes of verb are discussed to demonstrate the futurity. The origin of the *to* in the *to*-infinitive is discussed in Jespersen (1933: 329-30).

12) *If the latter act happens* is added because the possibility cannot be excluded that I did not read the book even if he wanted me to do so. The event (*me to read the book*) is not always actual.



happens. The gerund (*meeting*) is chosen in (13a) while the *to*-infinitive (*to meet*) is in (13b). Here, the gerund is *before*-oriented whereas the *to*-infinitive is *after*-oriented. They are confirmed by the presence of *last week* in (13a) and of *next week* in (13b). In (13b) the event of meeting her comes later than the reference point of *remember*. On the other hand, the event of meeting her in (13a) happens earlier than the reference point of *remember*.<sup>13)</sup>

As is seen in (12, 13), events marked by the *to*-infinitive are inherently futuristic even if the property is sometimes not so salient. The futuristic feature of the *to*-infinitive suggests a significant solution to the unacceptability of the *to*-infinitive in the active.

All of the perception verbs have one semantic feature in common. They all pertain to sensory perceptions such as smell, taste, vision, touch, etc. It is not difficult to imagine that when we smell, hear, and see, the sensory experiences are only possible as long as what we perceive already exists or happens at the moment of perception. For example, it is not imaginable that human beings can 'see' at the present moment what will happen tomorrow. It is not possible to 'see' at the present moment events which already happened yesterday. Both the act of seeing and the event of what is being seen must share some period of time at least. Let us compare (14).

- (14) a. I saw her *smile* at me.  
 b. \*I saw her *to smile* at me.

The choice of *smile* in (14a) means that she smiled at me at the time when I saw her. Undoubtedly, the act of her smiling at me actually happened. The event is not potential, but actual. The time of seeing cannot be disconnected from the time of smiling. The two events meet at one point of time at least. However, the presence itself of the *to*-infinitive (*to smile*) in (14b) implies that the act of smiling comes later than the act of seeing. In this case, the two events do not share any period of time at all. It is not possible for human beings to see things that will happen later than the moment of seeing. It is beyond humans. People are not gifted with such a capability.

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13) More details on retrospective verbs such as *forget*, *remember*, *regret* are discussed in Quirk *et al.* (1985: 1193).

The same logic applies to the auditory sense of hearing. Let us examine (15).

- (15) a. I heard her *calling* my name.  
 b. \*I heard her *to call* my name.

(15a) has the present participle (*calling*), which suggests that the event of calling my name was going on when the act of hearing happened. The act of hearing is somewhere in between the beginning and the end of calling. So the time of hearing falls within the time period of calling. On the other hand, the choice of *to call* in (15b) implies that the act of calling happens later than the act of hearing. There is a time gap between the two events. They are temporarily separated. They do not share any period of time at all. The sound of calling does not wait to be heard later. It just disappears. That explains why the perception verb of *hear* is not compatible with the *to*-infinitive as its complement.

(16a, b) appear to be contradictory to the observation above.

- (16) a. We saw him *to be* an imposter. (Huddleston & G. Pullum 2003: 1236)  
 b. \*We saw him *be* an imposter.

The *to*-infinitive (*to be*) is chosen over the bare infinitive (*be*) in (16a), but the sentence is correct. (16b) is not correct, even though the complement has the form of a bare infinitive. The examples in (16) apparently go against what we have observed up to now. The answer lies in the semantic characteristic of *see*. In the case of *see* in (16), it does not function as a perception verb.<sup>14</sup> It is a mental cognition rather than a sensory perception. *To be an imposter* is not an act. Rather it is a state of being. The perception functions when we sense things happening. However, *to be an imposter* cannot be regarded as an act. The function of *saw* in (16) is very similar to cognition verbs such as *know*, *understand*, *believe*, *think*, etc. (16a) has the same meaning as *We saw that he was*

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14) According to Palmer (1988: 199), almost all verbs of perception can function as verbs of reporting. One of his example sentences is *He saw the children to be eating their lunch*. *Saw* in the sentence does not function as a perception verb.

*an imposter*.<sup>15</sup>) That explains why *saw* in (16a) takes a *to*-infinitive, and that the sentence is correct. The complement is a bare infinitive in (16b) and it is not acceptable. The cognition verb does not allow the bare infinitive as seen in (17).

- (17) a. I believe/know/think him *to be* innocent.  
 b. \*I believe/know/think him *be* innocent.

(17a) is correct for the same reason as (17a) is correct. (17b) is not correct for the same reason as (17b) is not correct.

The main idea of our discussion up to now is that the unacceptability of the *to*-infinitive to the perception verb in the active has much more to do with the fact that the *to*-infinitive has the inherent semantic feature of futurity. The act of perceiving and the event which is perceived must share some time period. However, the event carried in the *to*-infinitive happens later than the moment of perception. They do not meet temporarily. That is how the *to*-infinitive is not compatible, by nature, with the perception verb.

The perfect form is used to indicate that events happen earlier than the time indicated by the tense of the main verb. Considering this characteristic of the perfect, we can see that there exists a time difference between the two acts involved. Let us examine (18).

- (18) a. \*I heard her *have called* my name.  
 b. \*I heard her *having called* my name.

Neither of (18a, b) is correct, even though neither of them has a *to*-infinitive in the complement positions. The unacceptability is very clear. It is because some time gap exists between the two separate events involved. In (18a), the perfect infinitive (*have called*) implies that the event of calling happens earlier than that of hearing. The time points of the two events do not join together at one point. Naturally, people are not expected to be able to hear the event of calling which happened earlier than the time point of hearing. (18b) is also ruled out based on

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15) The cognition verb allows the following syntactic correspondence: (i) I think/believe/know/understand/consider him *to be* an imposter. (ii) I think/believe/know/understand/consider that he is an imposter.

the same ground.

We have observed that the *to*-infinitive is not accepted in the active as the complement of the perception verb because the form of the *to*-infinitive inherently tends to suggest that events marked by the *to*-infinitive happen later than the time point of reference. Another observation is that the perfect infinitive also does not qualify to be the complement of the perception verb. The reason for the disqualification also supports that the inherent nature of the perception verb requires that the two points of time for the act of perceiving and the event which is perceived should meet together at one point of time at least. In the case of *to*-infinitive or perfect infinitive, there exists a gap in time, which explains that the perception verb cannot accept *to*-infinitive or perfective infinitive as its complements. It is to do with the inherent semantic nature of the perception verb.

Jespersen (1933: 329-30) mentions the sphere of utility of the bare infinitive, saying, "It is used...in a few cases in which the connexion between the infinitive and what precedes it is very close." However, his '*very close*' is not specifically defined. It is not clear enough in what sense the connection is close. The idea suggested in this research is saying that the connection is close in the sense that there does not exist the time gap between the time when events are perceived and the time when we perceive. The two times overlap.

Givón (1990: 516) also mentions the relationship between syntax and semantics. He says, "The stronger the semantic bond is between the two events, the more intimately is the syntactic integration of the two propositions into a single clause." When we compare the bare infinitive and the *to*-infinitive in terms of syntactic integration, the former is more integrated into the superordinate clause because the absence of *to* makes the connection closer or stronger between the superordinate clause and the subordinate one. As to the perception verb, its choice of not the *to*-infinitive but the bare infinitive as its complement is related to what Givón terms semantic bond. People are only able to perceive what actually happens or is happening at the time of perceiving, neither before nor after. People cannot perceive, at the time of perception, what will happen later or happened earlier. Events marked by the bare infinitive are actual and certain. However, the *to*-infinitive does not ensure that events marked by the device are actual, when we consider that events marked by the

*to*-infinitive are futuristic and uncertain. So the reason explained in this research for the choice of the bare infinitive over the *to*-infinitive by the perception verb is much in line with the semantic reflection on syntactic structure.

#### 4. Conclusion

The focus of this research is on why the *to*-infinitive is not eligible for the complement of the perception verb in the active. The reason for the ineligibility is much to do with the inherent semantic feature of the *to*-infinitive. The *to*-infinitive inherently indicates that events conveyed in the *to*-infinitive is future-oriented. The perception verb, which employs the sensory organs to perceive events, requires events which happens or is happening at the time of perceiving the events. However, the futuristic feature of the *to*-infinitive as the complement does not agree with the semantic requirement by the perception verb. At the same time, such a semantic requirement explains that the perfect forms also cannot qualify for the complements of the perception verb. It is because the perfect form dictates that events happen earlier than the time point of reference. The semantic property of the perception verb is responsible for the incompatibility of the *to*-infinitive and the perfect infinitive or the perfect participle with the perception verb in the active.

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