

Appositive Clauses with the *To-Infinitive* and the *Of-Ing*

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同格構文における To-不定詞句と Of-動名詞句

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Abstract

This paper focuses on the appositive clauses which are expressed in the forms of the *to-infinitive* and the *of-ing*. Some nouns are followed by *to-infinitive* clauses, others by *of-ing* clauses. The author examines what kind of head nouns are compatible with the former or the latter by clarifying the implications and functions of these two types of clauses. There are cases in which the same head noun is given a different interpretation depending on the type of clause used to modify it. Also arguments are made about how these respective appositive clauses affect the determination of meaning in these instances. In the process of looking into the relationships between head nouns and these postmodifiers, the author makes clear the semantic nature of head nouns and implications and the functions of *to-infinitive* clauses and *of-ing* clauses.

Key words: head nouns, *to-infinitive*, human volition, *of-ing*, objective situations

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同格構文に to-不定詞句と of-動名詞句によって表されるものがある。主要部名詞によっては to-不定詞句を従えるものもあれば、of-動名詞句を後置させるものもある。to-不定詞句と of-動名詞句の本来の意味と機能を解明し、それぞれがどのような特質の主要部名詞と共起するのかを議論する。また、同じ主要部名詞でありながら、同格句の違いによって異なった意味解釈が付与される場合もある。この2つのタイプの同格句がその意味決定にどのような影響を及ぼすのかも議論する。本稿はそうした後置修飾語句の主要部名詞との関係における機能で確認できたこと、また明らかになったことを示す。

キーワード: 主要部名詞、to-不定詞、人の意志、of-動名詞、客観的状况

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1. Introduction

One of the difficulties learners of English as a second language face is the acquisition of the difference in meaning and use between the NP + *to-infinitive* and the NP + *of-ing* clauses as postmodifiers. The reason stems from the fact that the learners are not well acquainted with the semantic nature of nouns taking *to-infinitive* clauses and those requiring *of-ing* clauses. The functions of these two types of clauses as a complement are another concept that is hard to grasp. Take eagerness and pleasure for example. The former is followed by the *to-infinitive* clause, while the latter is postmodified by the *of-ing* clause, although they both indicate an emotional aspect of the agent. This paper attempts to find and explain the rules governing the use of these appositive clauses. What should be brought to the readers' notice in this regard is that the following constructions are excluded: 1. *to-infinitive* clauses with nouns which serve as their subjects as in the case of "Mary has a smart dog to help her." and 2. the constructions in which the nouns play the role of their objects as in "Mary left me with a dog to take care of."

2.1. The relationships between head nouns and *to-infinitive* clauses

(A) The relationships between the verb *attempt* + *to-infinitive* clauses and the noun *attempt* + *to-infinitive* clauses

(1) a. He *has attempted to find a peaceful solution* to the Ossetian conflict...

b. They made *an attempt to develop a bipartisan approach* to educational reform.

(COB 2004)

Declerck(1991:468) defines *to-infinitive* clauses as often having a putative (theoretical) meaning and adds that a particular situation has not yet actualized at the time of the head clause situation. His explanation backs up the fact that verbs such as *attempt*, *decide*, *promise* and *permit* are compatible with *to-infinitive* clauses. All of these verbs connote situations that have not yet occurred and may arise in the future. It can be assumed that the noun *attempt* in (1a) takes a *to-infinitive* clause because the verb *attempt* is usually followed by *to-infinitive* clauses. (1a) implies that efforts have been made in the direction of a peaceful solution but that it is not known whether it has actually been reached or not. In other words, the situation described by the *to-infinitive* clause has not yet been realized. In like manner, (1b) suggests that it is unclear whether the situation expressed by the *to-infinitive* clause arose or not. Only the fact that the attempt was made is clear. Whether *attempt* is used as a verb or a noun, the compatibility with the *to-infinitive* clause remains valid in view of the implication the clause

originally has. In either case, it is evident that a volitional action was made in the direction of what the *to-infinitive* clause implies.

Just as *attempt* is followed by the *to-infinitive* clause regardless of its part of speech, the *decide to-infinitive* clause is used in the form of the *decision to-infinitive* clause. So is the *permit O to-infinitive* clause used in the form of the *permission for O to-infinitive* clause. From the viewpoint of the head noun, Quirk et al say that *to-infinitive* is found chiefly after nouns, *ie* those nouns which express modal meanings that involve human control over events. This explanation supports the validity of the claim that has been made above.

Nouns derivative of verbs such as *determination*, *commitment*, *proposal* and the nouns *plan* and *plot* that have the same form as the verbs are interpreted as suggesting the speaker's modal meanings and, therefore, are well connected with the *to-infinitive* clauses, which imply the speaker's intentional attitude. The same goes for *will* and *effort* which also share a volitional implication.

(B) Fail to-infinitive clauses as opposed to miss-ing clauses

Fail takes *to-infinitive* clauses while *miss* takes *ing* clauses though these two verbs are quite similar in terms of meaning. To find out why they require a different form of verbs, let us compare their essential implications and contrast the functions of the two types of clauses that follow.

- (2) a. She *failed to gain admission* to the university of her choice. (OALD 2000)
 b. I got in too late and *missed seeing the news* on TV. Swan (1995²:332)

Missed in (2b) indicates that the agent could not do what he wanted to do probably because of his work, the traffic situation or something but the statement does not connote effort or will on the part of the agent. *Ban*, *quit*, *avoid*, *skip*, which also take *ing* clauses, have the implication that the actions represented by gerundial clauses involve no more effort or hard work than *miss* does. This is because *ing* clauses refer to the fact that the process of the actions is already in progress as Biber et al (1999:741) suggest or does not take much work to get started. Therefore *ing* clauses can go well with the above mentioned verbs. In other words, *miss* is like the others in that it does not have a strong association with actions implying the agent's will.

CIDE(1995) defines *fail* as 'not being successful in what you are trying to achieve or expected to do.' This indicates that the agent has the intention or will to accomplish something that requires a certain amount of effort. Although the verb *fail* may seem to have a negative meaning like *ban*, *quit*, *avoid* and *skip*, it connotes a positive and active situation in which the agent took some intentional action in the process of achieving his purpose, while

the latter verbs do not. This implication of the verb *fail* makes it compatible with *to-infinitive* clauses, which imply volitional actions directed toward the future. Consequently, as in (A), the compatibility of the noun *failure* with *to-infinitive* clauses can hold valid.

(C) Head nouns such as *refusal* and *reluctance* suggesting unwillingness

- (3) a. On cold mornings the car always *refuses to start*. (CIDE 1995)
b. *His refusal to talk* was simple stubbornness. (COB 2004)

The definition of *refuse* by ODE (2003) states that it is to indicate or show that one is not willing to do something. This suggests that the verb contains a semantic element implying the agent's intention or will not to perform a required action. In (3a), the speaker uses *refuse* for the inanimate agent. This is because, by personifying the car, the speaker wants to convey the message that his car is as uncontrollable as if it were endowed with human emotion and will.

The *to-infinitive* has the function of showing the direction in which the action hereafter proceeds. Thus, *refuse to-infinitive* is taken to mean resisting going in the way directed by the *to-infinitive*. The nature of the verb *refuse* implying a person's intention and will and that of the *to-infinitive* indicating the action that is hereafter to be taken, make these two components compatible with each other. This leads us to infer that the noun *refusal*, a derivative of *refuse*, can work well with *to-infinitive* clauses. So are head nouns such as *reluctance*, *unwillingness*, and *disinclination*, which express the agent's intentional attitude.

(D) Characteristics of nouns such as *authority*, *qualification* and *foundation* and their relationships with *to-infinitive* clauses

- (4) a. The judge had *no authority to order a second trial*. (COB 2004)
b. NEPA does not provide *direct authority for addressing the substantive issue* of whether a mine should be permitted on the border of the oldest national park.
(WB 2001 US Written)
- (5) a. That time with him is *my qualification to write this book*. (COB 2004)
b. So what are *his qualifications for acting like a little tin god?* (IDM 2002²)
- (6) a. Modeled after the U.S. Geological Survey, NBS was to provide *a scientific foundation to support the management and the conservation of America's ecosystems*.
(WB 2001 US Written)
b. I also played a lot of handball at school and that's when I laid *the foundations for being a goalkeeper*. (WB 2001 UK Written)

Nouns such as *authority*, *qualification*, *foundation* do not have any semantic elements suggesting the agent's intentional attitudes which are observed in *attempt* in (A) and *reluctance* in (B). The head nouns mentioned in (4), (5) and (6) imply the power or right to make decisions or make people obey, a condition required to pursue a job, *ie* a base on which activities are carried out, respectively. The common denominator that can be found in these terms is "a source of support" on which people depend and without which they could not achieve anything. From the viewpoint of the meaning, the *to-infinitive* following *attempt*, *decision* and *refusal* indicates that the action has not yet been taken at the time of utterance. What should be noted about the *to-infinitive* after *authority*, *qualification* and *foundation* is that it suggests the agent's purpose and the attainment of his goal, although they have the same meaning as those mentioned above in terms of the relationships between the action and time of utterance. As seen in (4b), (5b) and (6b), to convey the same message as in (4a), (5a) and (6a), the *to-infinitive* clauses can be paraphrased as *for-ing* clauses indicating the purpose of the agents. *To-infinitive* clauses have the implication that the agent proceeds to the action or the state he chooses as a purpose to fulfill. This leads us to conclude that not only head nouns which communicate will or intentional attitudes but also those implying the means by which the purpose is achieved, namely head nouns suggesting "a source of support" are compatible with the *to-infinitive*.

The principle by which head nouns such as *requirement* and *condition* also go well with the *to-infinitive* can be elucidated from the perspective of the relationships between "a source of support" and a purpose to be achieved.

(E) The misfortune to-infinitive clauses and the strength/readiness to-infinitive clauses

Let us discuss why the noun *misfortune* can co-occur with *to-infinitive* despite the fact that it does not reflect a person's characteristics, emotional state at the moment or his purposive action as in "*have the strength/readiness to-infinitive*."

(7) She *had the strength to withstand this pressure*.

Huddleston and Pulluman (2002:1260)

(8) I *had the misfortune to share a room* with someone who snored loudly. (COL 2002)

Huddleston and Pullum (2002:1260) paraphrase (7) as "She *had the strength necessary to withstand the pressure*." The added adjective *necessary* can lead us to interpret that she had the tenacity that was needed to achieve what she was supposed to do. (8) has to be given a different interpretation although it is the same as (7) in terms of construction. *Misfortune* means an unwanted situation in which the agent finds himself at the moment in question. It

does not refer to any of the agent's personal qualities, characteristics or his emotional states like *courage* or *readiness*. Nor does the *to-infinitive* clause following the noun indicate the action he was expected to do. Rather, it describes an unfortunate condition that the agent had to face.

If the sentence in (7) and that in (8) are categorized as the same in structure, an alternative interpretation has to be given to the implication of the *to-infinitive* clauses used here. The *to-infinitive* clauses that follow *strength*, *readiness* and *courage* suggest actions that have to be performed or purposes that have to be achieved with personal qualities, characteristics or emotional states described by the head nouns. What should be noted concerning (8), however, is that in this context the *to-infinitive* clause implies the "degree" to which the agent has to perform his action. In other words, the clause specifically tells the level of unfortunateness by describing what he experienced. If interpreted this way, the clause following *misfortune* can be construed to mean the high degree of misfortune he had to face.

Just as the adjectives like *strong* and *unfortunate* have their degrees described by adverbs, so do their noun forms have their degrees described by adjectives or adjectival clauses, one of which is a *to-infinitive* clause. The same rule can be applied to the expression *to have the curiosity/energy/luck to-infinitive clauses*.

Let us add a discussion on the meaning of the definite article *the* in this connection.

- (9) a. She had *enough sense to turn off the gas*.
b. She had *the sense to turn off the gas*.

Thompson and Martinet (1986⁴:224)

Thompson and Martinet (1986⁴:224) note that *have + enough + abstract noun* is sometimes replaced by *have + the + abstract noun*. This means that in (9b) *the* has the implication of *enough*. And a further possible explanation would be that the following *to-infinitive* clause indicates the degree of sense to which the action mentioned is performed. COB(2004) defines *the* in this context as follows: "You use *the* to indicate that you have enough of the thing mentioned for a particular purpose," and cites an example: "We must have the patience to continue to work until we find a peaceful solution..." This can be paraphrased as "We must have *enough patience to continue to work* until we find a peaceful solution..." implying how sufficient our patience has to be.

Another deduction that can be drawn with regard to the meaning of the article is that *the* that precedes *strength/patience/sense/misfortune + to-infinitive* clauses is not anaphoric but cataphoric. There is no knowing what *the* refers to until the *to-infinitive clauses* are stated. With or without aforementioned contexts, it can refer to the following *to-infinitive* clauses. It carries the task of specifying the head noun in relation to the actions or situations explained

by *to-infinitive* clauses.

Mention must be made of *misfortune* followed by an *of-ing* clause as in (10). In this context, the sentence does not suggest the degree of unfortunateness the agent had but it conveys what kind of misfortune she had, with its emphasis placed on the content of that misfortune.

- (10) A fierce and upright creature who had *the misfortune of being unable to pronounce her "Rs"*, she was named Reverend Mother Rita ... (WB 2001 UK Written)

2.2. An agreement to-infinitive clause and an agreement that-clause

Let us examine the difference in meaning between the case where the head noun is followed by a *to-infinitive* clause and the one in which it is complemented by a *that*-clause.

- (11) a. Some firms have reached *agreements to cut workers' pay below the level set in their contract*, a practice that is illegal in Germany... (COB 2004)
b. Some firms have reached *agreements that they will cut workers' pay below the level set in their contract*.
- (12) a. I think the issue here with the Congress and the White House is that both are in agreement that this was the right thing to do. (WB 2001US Spoken)
b. *Both are in *agreement for this to have been the right thing to do*.
[(11a) and (12a) were underlined by the author.]

Agreement has two meanings: one is a formal decision about future action which is made by two or more countries, groups, or people (COB 2004). This leads us to interpret it as "contract" or "pact," by which certain events are expected to occur in the future. OALD's (2000) definition states that it is an arrangement, a promise or a contract made with somebody. This makes it clear that *agreement* in this sense involves human volition. The other meaning is the state of sharing the same opinion or feeling (OALD 2000), suggesting "accordance in opinion or feeling," which has the implication of a shared thought or sentiment people have at present or they have come to hold as a result of certain situations.

The *to-infinitive* clause in (11a) implies that some firms will cut workers' pay at a certain time in the future and that, as a matter of course, the action will require the will of those concerned. This directs the interpretation of *agreement* to "contract," because it conforms to the former definition suggesting what has been decided between the two groups, what will happen in the future and what will be done by human volition. The message can also be

communicated by a *that*-clause as in (11b) if it conveyed with auxiliary verbs like *will*, *should* or *can* that are indicative of future events and human volition.

On the other hand, in (12a) since *agreement* is in connection with the situation to which both parties concerned give approval, it means “accordance in opinion.” It is without doubt impossible to give the interpretation of “contract” here because there is no human volition involved in the statement in the *that*-clause, and for the same reason using a *to-infinitive* clause to describe the situation is unacceptable.

The same goes for the head noun *decision*. It means a “choice” or “determination” you make based on your own will when it precedes *to-infinitive* clauses while it means “judgment” when it precedes *that*-clauses. It is worth mentioning in this regard that *that*-clauses can express established facts but *to-infinitive* clauses cannot.

3. Conditions for *of-ing* clauses to appear

As we have discussed, appositive *to-infinitive* clauses appear in situations in which the speaker intends to convey the agent’s volition, emotional attitudes, purposes and possible future actions. Now let us focus our attention on how *of-ing* clauses behave in connection with specific head nouns.

3. 1. The relationships between the head noun *history* and *of-ing* clauses

The implications of head noun + *of-ing* clauses are made clear by looking into examples which distinctly distinguish themselves from head noun + *to-infinitive* clauses.

- (13) a. The boy’s mother had *a history of abusing her children*. (COB 2004)
b. *The boy’s mother had *a history to abuse her children*.
- (14) a. His illness is *a result of breathing in paint fumes* over many years. (OALD 2000)
b. *His illness is *a result to breathe in paint fumes* over many years.

In (13b) *history* is not compatible with *to abuse her children* because a noun which has a semantic nature of conveying events in the past is used with the clause which is supposed to imply an action that has not been taken yet. In other words, the vectors indicating the direction of time point in quite the opposite directions. If we look at this contradiction from a different perspective, it becomes clear that the reason why the clause *of abusing her children* makes sense in conjunction with the noun *history* is that *of-ing* clauses have an implication of facts that already exist or have been established.

The appositive clause in (13a) unquestionably suggests a past event in which the boy’s mother abused children. This is because of the head noun *history*, which refers to a series

of events in the past but never to any events which have yet to occur. The above reasoning shows that *of-ing* clauses have the implication of suggesting facts which are already existent or events in the past and therefore accord well with nouns associated with events in the present and the past.

Take the noun *result* for another example. It refers to something that is caused or produced because of something else, implying that the situation occurs after some events have taken place. It can be interpreted as a noun, whose semantic vector is directed at the present situation created by a series of events in the past. It follows that *to-infinitive* clauses cannot modify *result* because they suggest events that have yet to occur. In (14b), with the *to-infinitive*, the act of *breathing in paint fumes* is taken to suggest that the agent will do so in the future of his own will, which is impossible to imagine. The reason why the *of-ing* clause follows *result* in (14a) is that it has a semantic element that makes itself compatible with the head noun which implies an established fact.

By the same token, *of-ing* clauses have full compatibility with *record*, *story*, *tradition*, *fact*, *evidence*, *custom* and so forth. All of these nouns refer to facts that have been established by what happened in the past or by what has continued since some time in the past.

Let us discuss a case where one of these nouns occurs appositively with *to-infinitive* clauses.

- (15) a. The League has documented *evidence of a terrified deer climbing onto a cottage roof*
in sheer panic... (WB 2001 UK Written)
- b. There was *insufficient evidence to convict him*. (ODE 2003)

In (15a) it is obvious that the *of-ing* clause refers to an event in the past. What caused the League to document evidence is obviously the fact that a terrified deer climbed onto a cottage roof, that is, the very action the agent (*a terrified deer*) took at some time in the past, to be more exact, before the time of the head clause situation. The *of-ing* clause constitutes the content of the message defined by the head noun *evidence*. In (15b), on the other hand, the *to-infinitive* clause suggests the action that the agents (*we*) are going to take in the future. It clarifies the purpose of the statement that precedes it, while the head noun serves as “a source of support,” which has been dealt with in 2.1. (D).

The above example shows that some head nouns which are typically followed by *of-ing* clauses can take *to-infinitive* clauses, depending on the kind of messages that follow. If they are related to actions or events that have already happened, they take *of-ing* clauses, which imply established facts. If these nouns are used in relation to future actions that are to be taken to achieve certain purposes, they are postmodified by *to-infinitive* clauses. *Experience* and *record* are other good examples to which this rule can apply.

3. 2. The relationships between *the possibility* and *of-ing* clauses

Let us now examine why the head noun *possibility*, which implies actions, events or states in the future, does not take *to-infinitive* clauses.

- (16) a. I'm very excited about *the possibility of playing for England's first team*.
(USAGE 2004²)
b. I cannot entirely exclude *the possibility that some form of pressure was applied to the neck*.
(COB 2004)
- (17) a. *My prospects of returning to a suitable job* are dismal...
(COB 2004)
b. *My decision to return to a suitable job* is firm...

Quirk et al (1985:219) state that *of + -ing* clauses seem to occur chiefly after nouns such as *hope*, *possibility*, *prospect* and *risk*, which express extrinsic modality, *ie* after nouns whose meanings do not primarily involve human control of the action itself, but typically involve human judgment. Biber et al (1999:654) observe that head nouns such as *idea*, *hope*, *possibility*, *sign* and *thought* are commonly used with both *of + -ing* and *that*-clauses. As is evident from (16a), with the head noun *possibility*, it is impossible to assume that the agent (*he*) can create the situation the way he wants it to be of his own will. And the fact that this head noun also takes *that*-clauses, which are referred to as *content clauses*, reveals that they are nouns of a high degree of objectivity. Other similar nouns that are closely linked to *of-ing* clauses are *expectation*, *likelihood* and *probability*.

Reflecting on the characteristics of the nouns we deal with in this section, we may safely say that head nouns are supposed to have the implication of "impersonal ideas about the given situation or for the future situation." And the *of-ing* clauses which follow them suggest actions or states that are occurring or are going to occur, not situations over which human control can be exerted. To put it another way, the present and future situations described by *of-ing* clauses are conceptual and beyond the agent's power to manage. These clauses are different from *to-infinitive* clauses in that they do not convey volitional actions.

The comparison between (17a) and (17b) makes the difference clear. In (17a), although it is the agent (*I*) himself who is able to improve his prospects at his own will, what determines whether or not he can return to a suitable job is not his will but the circumstances in which he finds himself. The head noun *prospects* is an impersonal word and the situation described by the *of-ing* clause is what a personal will can do nothing about. In (17b), on the other hand, *decision* expresses a personal action and therefore it is capable of having an effect on the situations described by the following clauses. This is why the *to-infinitive* clause appears after the head noun.

3. 3. The relationships between *the pleasure, sorrow, and embarrassment and of-ing* clauses

Nouns such as *curiosity* and *eagerness*, which express feelings and emotions, are followed by *to-infinitive* clauses, while *pleasure* and *sorrow*, which similarly convey feelings and emotions, are compatible with *of-ing* clauses.

- (18) a. *His eagerness to fight back* could not be permitted to wither away. (PHV 2002²)
 b. The soil has been tended here not for profit or prestige but for *the pleasure of growing and caring for living things*. (USAGE 2004²)

In (18a), the *to-infinitive* clause following the head noun *eagerness* shows the direction in which the agent's volitional action is headed as a result of the feeling that he has. On the other hand, *pleasure, sorrow* and *embarrassment*, as example (18b) shows, are feelings and emotions that are generated by surrounding circumstances. They are feelings and emotions created by or after performing the actions described by *of-ing* clauses. Head nouns expressing feelings and emotions followed by *of-ing* clauses indicate what kind of feelings and emotions arise in relation to actions or states. It does not matter whether those actions or states took place or will take place. Another characteristic of *of-ing* clauses is that they describe situations as concepts. They do not necessarily refer to actions or states that were experienced or those that will be experienced in the future, but they treat them as knowledge. They describe them from an objective point of view, attaching little importance to the agent. These characteristics of *of-ing* clauses make themselves compatible with *joy, pleasure, sorrow, pain, embarrassment, shame, and honor*. These nouns do not indicate feelings or emotions which lead the agent to perform actions in the future like *curiosity, eagerness* and *desire*.

3. 4. Appositive clauses determine the meaning of their head nouns.

We'll see how the meaning of head nouns is specified by posmodifying clauses.

- (19) a. It was the first time she'd had *a chance to think it through*.
 b. Do you think they have *a chance of beating Australia*? (COB 2004)

There is a great difference in the meaning of *chance* between cases in which it is modified by *of-ing* clauses and when it is modified by *to-infinitive* clauses as seen in (19a) and (19b). The head noun in (19a) is interpreted as "opportunity," while the one in (19b) "possibility." *To-infinitive* clauses, as we have already discussed, are typically relevant to actions and states that the agent performs or creates at his own will. Therefore a *chance to think it through* is taken to mean an opportunity given to start the action of *thinking it through*, the action the

agent wanted to perform. In (19b), *of-ing* implies an action as a concept. It does not suggest a volitional action. Thus the definition of *chance* boils down to “possibility,” which ensures consistency with the implication of the *of-ing* clause.

Let us cite another example in which the head noun takes a different interpretation depending on the clauses that come after them.

- (20) a. The children know that when the teacher puts her finger to her lips, this is *a sign for them to be quiet*. (L A 1993:1234)
- b. European Community countries are showing *signs of cracking under intense pressure from the United States*. (COB 2004)
- c. His rifle bears *no sign of having been fired*.

One of the definitions of *sign* in ODE (2003) states that it is a gesture or action used to convey information or an instruction. Another states that it is something regarded as an indication of what is happening or going to happen. In (20a), where the head noun is followed by a *to-infinitive* clause, the definition, which reflects a semantic element that indicates a voluntary action directed in the direction described by the verb, is chosen from its semantic category. Thus the definition corresponding to “gesture” is picked out because it accords well with *to-infinitive* clauses, which suggest volitional actions.

In (20b), what is stated in the *of-ing* clause is a situation that takes place irrespective of the agents’ will. This warrants the assumption that the head noun takes a definition with no personal or volitional connotation. Thus the most appropriate choice of definition narrows down to “indication,” which conveys an objective and impersonal viewpoint.

Sign in (20c) shows that it has a semantic element which connotes the connection between past events and the results brought about by them like *result* and *evidence*. It can easily be assumed that the perfect gerund form *having been fired* is used here in order to make the implication of the head noun *sign* apparent by emphasizing the perfect aspect. Hence *sign* is interpreted as “trace” in this context.

The above discussion makes it clear that polysemous nouns take *to-infinitive* clauses to generate the implication related to volitional actions, and take *of-ing* clauses to extract the implication associated with impersonal and objective actions or states.

3. 5. The method of-ing clause and the method to-infinitive clause

Let us look at the meaning of these two types of clauses which postmodify *method* in order to find out another semantic aspect of *of-ing* clauses.

- (21) a. *The method of helping such patients* is explained in the following chapters. (COB 2004)

- b. *The most favoured method to get into a carriage* which is already packed to the gunnels is to get on the door step with your back to the teeming millions and shuffle in reverse... (WB 2001 UK Written)

ODE(2003) defines *method* as a particular procedure for accomplishing or approaching something, especially a systematic or established one. This definition makes it compatible with *of-ing* clauses in (21a), which does not necessarily involve personal or volitional actions. This statement refers to a generally accepted systematic way of achieving the purpose regardless of whether or not the agent wishes or intends to perform the action. The *to-infinitive* clause in (21b) generates the implication of an intentional action and it suggests involvement of volition, which provides the interpretation that it is a way people intending to get into a carriage should use. The head noun here can be taken to mean “a source of support” discussed earlier.

Since *to-infinitive* clauses have a strong tie with head nouns with volitional implications, they suggest that the agent is going to perform a certain action he wishes or intends to. *Of-ing* clauses, on the other hand, do not suggest that the agent is going to do something of his own will or he is intentionally making situations take place, but they express actions or states from a general or objective perspective. They occur when head nouns carry implications which are not connected with intentional or volitional actions.

The same explanation can apply to the following cases.

- (22) a. *The only way to escape the unwanted attentions of the local men* was not to go out... (COB 2004)
 b. He would laugh at *her soft, nonsensical way of talking*. (OTE 2004)

(22a) gives the idea that there is someone who wants to escape the unwanted attentions of the local people and that is the action the agent is likely to do. The readers can easily infer that the head noun *way* is used in the same sense as *method* in (21b). In (22b), on the other hand, *way* does not suggest a method she should use but her manner or style of talking. The clause modifying *way* is supposed to imply that the agent (*she*) performed the actions regardless of whether she wished it or not. The reason why the clause is interpreted this way is because *of-ing* clauses have an objective meaning and they do not imply future actions the agent intends to perform. If the *to-infinitive* were used in (22b), it would mean that it was her intention to talk softly and nonsensically in the future, which of course is not the case in this context.

One more point to be added concerning the *way + of-ing* construction and the *way + to-infinitive* construction is that the actions expressed by the former are assumed to be

unconscious as opposed to the actions described by the latter being made consciously.

3. 6. *The necessity to-infinitive clause and the necessity of-ing clause*

As mentioned earlier, Quirk et al (1985:219,1273) cite *aim*, *necessity*, *intention*, *possibility* and *responsibility* as examples which are followed by *of-ing* clauses. What makes a difference in the choice between *of-ing* clauses and *to-infinitive* clauses is the interpretation of “root modality” and “epistemic modality.” To put it in their words, “root modality” is “intrinsic modal” and “epistemic modality” is “extrinsic modal,” the former implying that human control is exerted on given situations, the latter suggesting human judgment of what is likely or unlikely to happen. In their interpretation, *of-ing* clauses modify nouns such as *aim*, *necessity* and *possibility*, which express “epistemic modality,” and are categorized as the kind of nouns which express human judgment. This proves consistent with the author’s interpretation that *of-ing* clauses have a strong tie with impersonal and objective head nouns which do not imply involvement of human volition.

- (22) a. She saw *the necessity to make an immediate impression on him*. (COL 2002)
b. *The necessity of having to meet her classes every day* and fulfill all her other faculty functions kept her going. (WB US Written 2001)

In (22a), the head noun *necessity* is modified by a *to-infinitive* clause. This gives it the interpretation of “root modality,” which can be taken to mean the need for her to perform the action she wished of her own will. In (22b), *necessity* is followed by an *of-ing* clause. The head noun here is given the interpretation of “epistemic modality.” She was under the pressure of meeting her classes not because of her will or wish but for objective reasons, namely, the pressure of circumstances.

With regard to the nouns mentioned above, the differences in meaning these two types of clauses make seem to be so slight and implicit that it may safely be said that they are used interchangeably.

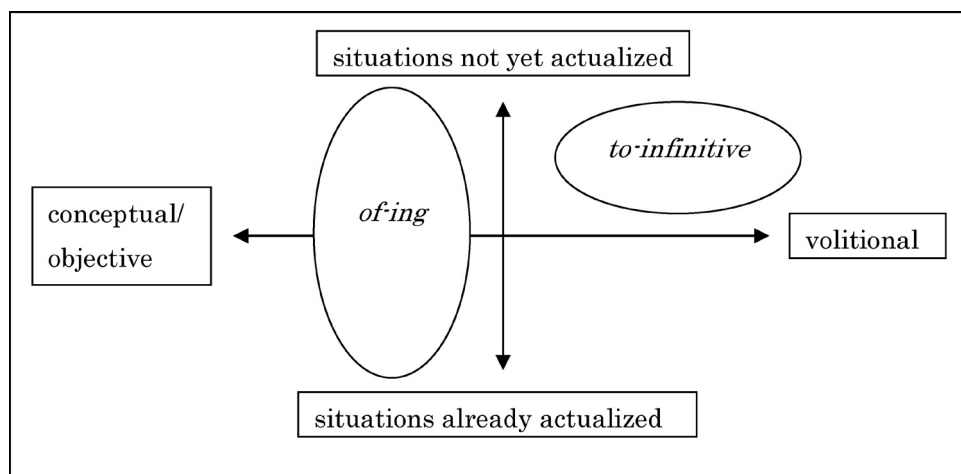
4. Conclusions

The conclusions that can be drawn from the discussions and analyses above are as follows.

- (1) Nouns expressing human intentions are followed by *to-infinitive* clauses, which indicate the directions of the actions or the states.
- (2) Nouns expressing personal characters, emotions and fortunes are postmodified by *to-infinitive* clauses, by which their “degrees” are described.

- (3) Nouns showing authorities, qualifications and foundations are followed by *to-infinitive* clauses and indicate “a source of support” to attain purposes described by the clauses.
- (4) *To-infinitive* clauses have the implication that the actions or events have not yet happened or are about to happen and that they are intentional.
- (5) *Of-ing* clauses indicate actions or events that have already taken place, that is, “established facts.” Therefore, nouns such as *history* and *result* are postmodified by these clauses.
- (6) Nouns describing objective prospects or signs occur with *of-ing* clauses and the clauses indicate actions or events that are likely or unlikely to take place. The actions or events are seen from an objective point of view and are taken as concept with no human volition involved in them.
- (7) Nouns suggesting emotions (*sorrow, pain, pleasure, shame, etc.*) aroused by extrinsic factors are followed by *of-ing* clauses. The clauses convey “the concept of the actions and the states” from a general and objective point of view.
- (8) Polysemous nouns postmodified by *to-infinitive* clauses provide interpretations connected to human volition. Those followed by *of-ing* clauses provide interpretations which reflect objective and impersonal implications.

The following chart shows a general outline of semantic natures of *to-infinitive* and *of-ing* clauses.



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Abbreviations of Dictionaries

- CIDE: *Cambridge International Dictionary of English*. (1995). Cambridge University Press.
- COB: *Collins COBUILD for Advanced Learner's English Dictionary New digital edition*. (2004). HarperCollins Publishers.
- COL: *Oxford Collocations Dictionary for Students of English*. (2002). Oxford University Press.
- IDM: *Collins COBUILD Dictionary of Idioms*². (2002). HarperCollins Publishers.
- LA: *Language Activator*. (1993). Longman.
- OALD: *Oxford Advanced Learner's Dictionary*. (2000). Oxford University Press.
- ODE: *Oxford Dictionary of English*. (2003). Oxford University Press.
- OTE: *Oxford Thesaurus of English*. (2004). Oxford University Press.
- PHV: *Collins COBUILD Dictionary of Phrasal Verbs*². (2002). HarperCollins Publishers.
- USAGE: *Collins COBUILD English Usage for Learners*². (2004). HarperCollins Publishers.
- WB: *5-million-Wordbank from the Bank of English*. (2001). HarperCollins Publishers.