

A Frame-Semantic Analysis of Prepositional Verbs with *On* and *Off*

Masumi Iwai

It has been widely accepted that the prepositions *on* and *off* are in a semantically opposite relation, as exemplified below:

- (1) a. get on the train
b. get off the train

The examples in (1) express one's opposite actions towards the train: riding and leaving. Each action can be denoted by the prepositions *on* and *off*. However, when the prepositions occur with the intransitive verb *live* and form a prepositional verb (henceforth, PV) as in (2), the meaning of the PV *live on* is nearly the same as that of the PV *live off*.

- (2) a. The Chinese live largely {on/off} rice.
b. Mary lives {on/off} her parents' money.

Sentence (2a) means that the subject referent (*the Chinese*) eats the object referent of *on* or *off* (*rice*) in order to live, and sentence (2b) *Mary* uses *her parents' money* in order to live. In this case, the prepositions *on* and *off* are interchangeable with each other.

It is not always possible, however, to interchange the prepositions *on* and *off* with each other. Observe the following sentence:

- (3) Mary lives {*on/off} her parents.

Sentence (3) shows that only the preposition *off* can occur and the phrase *lives off her parents* is acceptable. Furthermore, the following sentence, which is semantically very similar to sentence (2a), allows the verb *gorge* to form a PV with the preposition *on*, but not with *off*:

- (4) Cynthia gorged {on/*off} peaches.

The aim of this study is to give a detailed account of (3) and (4) in which the preposition *on* or *off* cannot occur in the sentence. We propose the following two points: (i) the preposition *on* evokes a direct relation between two entities, whereas the preposition *off* evokes a non-direct one, and the whole expression gives us the

frame of consumption, and (ii) whether the consumption is direct or non-direct is crucial to the occurrence of the prepositions *on* and *off*. As a preliminary of the main research, we consider the verbs that occur in the PVs in question.

According to dictionaries and the data found on the websites, there are many verbs that can occur with both prepositions *on* and *off* in order to form the PVs *V on* and *V off*: e.g., *dine*, *exist*, *feast*, *feed*, *flourish*, *graze*, *lunch*, *run*, *survive*, and *thrive*. In the examples below, the verbs *dine* and *run* occur with the prepositions *on* and *off*:

- (5) a. She dined {on/off} chicken and soup.
b. My car runs {on/off} diesel.

Given the meanings of the sentences in (2) and (5), the whole expressions have a certain semantic frame in common: the subject referent consumes what is expressed by the object referent of the prepositions *on* and *off*, and then, the event described by the verb is accomplished. For example, in (5a), the event described by the verb *dine* cannot be accomplished without consuming *chicken* and *soup*. In (5b), *the car* does not work unless it consumes *diesel*. The same thing is true for the examples in (2). In this way, we find that a certain frame is essential to interpret the meanings of the sentences. We call this frame the CONSUME frame.

Next, we turn our attention to the semantics of the prepositions *on* and *off*. Many previous studies on prepositions (cf. Hill (1968), Dirven (1993), and Lindstromberg (1998)) state that a preposition expresses a relation between two entities. This relation includes not only physical or spatial one, but also metaphorical or non-spatial one. Let us first consider the preposition *on*, as shown in (6):

- (6) a. The children were all lying on the floor.
b. He is on drugs.

Generally, the preposition *on* expresses a relation of contact between two entities. In (6a), the relation is held between *the children* and *the floor*, and therefore it is physical or spatial. By contrast, since (6b) expresses the custom of the subject referent *he*, the preposition *on* describes the relation of contact that is metaphorical or non-spatial. From the idea of contact, we can interpret the relation denoted by the preposition *on* as a more abstract one: a direct relation between two entities. The preposition *off*, on the other hand, denotes the opposite relation, as shown in (7):

- (7) a. The cover is off the box.
 b. She is off smoking.

The preposition *off* designates the relation of separation from something, which can be called source. Sentence (7a) describes the physical or spatial relation where *the cover* is away from *the box*. In (7b), the relation of metaphorical separation is held between the subject referent *she* and the custom *smoking*. However, the relation in (7a) can be distinguished from that in (7b): there is still a certain relation (e.g., part-whole relation) between *the cover* and *the box* even though they are not in contact in (7a), whereas there is no such relation between *she* and *smoking* in (7b). This means that the relation of separation which *off* describes depends on circumstances: the relation can be complete or partial separation due to the subject referent and object referent of *off*. This idea of separation allows us to understand the relation denoted by the preposition *off* as a more abstract one: a non-direct relation.

Given the CONSUME frame and the relations which the prepositions *on* and *off* denote, we can predict that the occurrence of the prepositions *on* and *off* in the PVs in question depends largely on the types of consumption: a direct or non-direct consumption. This prediction can be confirmed by the following contrast:

- (8) Mary lives {*on/off} her parents. (= (3))

By looking at the semantics of NPs, we find that there is no direct consumption between *Mary* and *her parents*: *Mary* cannot consume *her parents* directly. That is, the preposition *on* cannot occur in this sentence. The preposition *off*, by contrast, denotes a non-direct relation; hence it is chosen in (8). This explanation is supported by the following data:

- (9) a. Bob dines {on/off} pasta and salad at the restaurant.
 b. Bob dines {*on/off} the restaurant.

Since *Bob* consumes foods (*pasta and salad*), not *the restaurant* itself, the preposition *on* cannot occur in (9b). The preposition *off*, however, denotes a non-direct relation, so it can occur in the sentence. In this way, whether the two prepositions can occur or not depends on the relation of the type of relations in terms of consumption: a direct consumption or non-direct one. We can give an account of the following example in the same way:

- (10) Cynthia gorged {on/*off} peaches. (= (4))

The verb *gorge* can evoke the CONSUME frame, because it is classified into the verbs of ingesting, which involve the verbs *live* and *dine* (Levin (1993)). In Levin's analysis, *gorge* cannot be used in isolation (**Cynthia gorged.*) and what is eaten (the consumed) must be explicit. According to *COBUILD*, to gorge means that someone eats something in a very greedy way. This means that the verb *gorge* lexically specifies the manner of consuming. Since this manner meaning foregrounds the act of an agent, the consumed thing, i.e., what is acted on directly, must be explicit. For this reason, the preposition *on*, which denotes a direct relation, is chosen to form the PV *gorge on*. The preposition *off*, on the other hand, cannot be chosen because it denotes a non-direct relation, which is incompatible with the relation in terms of consumption between *Cynthia* and *peaches*.

Our prediction above can be confirmed by the following examples:

- (11) [John wants to be a professional dancer and practices dancing very hard. But he is in difficulties for money and food, so his parents support him.]
John dances {*on/off} his parents' savings.

The verbs or PVs that we have observed so far can evoke the CONSUME frame: *live on/off*, *dine on/off*, and *run on/off*. Sentence (11), however, involves the verb *dance*, which does not evoke the CONSUME frame by itself. Nevertheless, *John dances off his parents' money* can be construed as that *John* can dance or practice dancing thanks to *his parents' savings*. Due to the given context, the whole expression can describe the CONSUME frame (i.e., using the savings) and the PV *dance off* can be treated in the same way as the PVs we have seen above. The reason why the PV *dance on* is ungrammatical is that *John* does not consume *his parents' savings directly*. This example also shows that the relation between the consumer and the consumed is important, and that it plays an important role to determine the occurrences of the prepositions *on* and *off*.

In this paper, we have observed the PVs which consist of a certain type of verbs and the prepositions *on* and *off*. We have proposed that the preposition *on* evokes a direct relation between two entities, whereas the preposition *off* a non-direct one, and the whole expression gives us the frame of consumption. We have also proposed that whether the consumption is direct or non-direct is crucial to the occurrence of the prepositions *on* and *off* in PVs.