

A Semantic Approach to Conditions on the Directional *In*

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In this research, we are concerned with the directional interpretation of the preposition *in*. Observe the following examples, cited in Nikitina (2008:178):

- (1) a. He walked in the room. [locative / directional]
 b. He walked into the room. [directional]

In (1a), the PP *in the room* can be interpreted ambiguously either as the place in which the activity *walking* happened, or as the goal at which a moving person arrived by walking. In the latter interpretation, (1a) can be paraphrased into (1b). Thus, the *in* can be interpreted either as locative or directional. We will call the directional interpretation of *in* the directional *in* (hereafter, IN_{dir}).

In contrast to (1a), the following sentences in (2) do not license the IN_{dir}:

- (2) a. ?? They danced in the ballroom. (Nikitina (2008:185))
 b. ?? He ran in the desert. (Tutton (2009:8))

In (2a), the verb *dance* prevents us from interpreting the PP *in the ballroom* as directional. Likewise, (2b) does not allow the IN_{dir} because of the NP *the desert*. From the examples above, a question arises: when is the IN_{dir} acceptable?

The purpose of this research is to examine conditions for licensing the IN_{dir} from the semantic perspective. We propose that the IN_{dir} is acceptable when we can interpret a motion event as follow: a Figure, i.e. the moving entity, moves from the outside to the inside of a Ground, i.e. the goal, instantaneously. In other words, we establish two semantic conditions on IN_{dir}: (i) the motion event must be interpreted as punctual and (ii) the Ground NP must have a single boundary.

Conditions on IN_{dir} have been studied for the last decade (cf. Thomas (2001), Nikitina (2008), Tutton (2009), Beavers et. al (2010), etc.). The work of Nikitina (2008) is a particularly comprehensive study of different contexts in which IN_{dir} is acceptable. Her main claim is that IN_{dir}s are disfavored (a) if the motion verb has a highly specific manner meaning, or (b) if the Ground is not interpreted as a container. She attributes these conditions to the meaning of IN_{dir} which profiles the goal of motion. To illustrate the condition (a), observe the following examples (Nikitina (2008:185)):

- (3) a. ?? They danced in the ballroom.

- b. ?? He crawled in the ballroom.

The verbs *dance* and *crawl* describe elaborate manner of motions. In her analysis, the IN_{dir} describes the result state of a spatial transition and is incompatible with the profiling of the process of motion along a path. The condition in (b) captures the difference of Ground NPs shown in (4).

- (4) a. He walked in the {room / backyard / store}.
b. ?? He walked in the {city / field / mountain}.

(Nikitina (2008:187))

In (4a), the Ground NPs *room*, *backyard*, and *store* can be regarded as “containers” because they are surrounded by well-defined boundaries in every direction. On the other hand, the NPs such as *city*, *field*, and *mountain* in (4b) are difficult to understand as containers because of the absence of well-defined boundaries. According to Nikitina (2008), Ground NPs must be conceptualized as containers because the *in* profiles the goal of motion. Thus, the *in* in (4a) can be licensed as an IN_{dir} but that in (4b) cannot.

Apparently, Nikitina’s (2008) two conditions might be plausible. However, there are clear counterexamples against them as below:

- (5) Sure enough, I *dived* in the water, swam up the other end, and he came after me.
(6) a. I had a horse who loved going on the beach and in *the sea*...
b. Put yourself in *my place* and see how you feel.

((5): BNC, (6): Tutton (2009:19, 21))

In (5), the verb *dive* describes a particular physical characteristic of the motion: someone jumped in head-first with his/her arms held straight above his/her head. Despite its elaborate manner meaning, the verb is perfectly compatible with the IN_{dir} . In (6a, b), the IN_{dir} s are acceptable although the Grounds *sea* and *my place* can be best regarded as unbounded “areas,” rather than “containers.” These examples are problematic for Nikitina’s (2008) analysis.

As seen above, the IN_{dir} is one possible interpretation of *in* which occurs with a motion expression. To explain the conditions for IN_{dir} , therefore, we must take into consideration the semantic function of *in* and the nature of motion. Unlike the directional preposition *into*, *in* inherently denotes a static location (Tyler and Evans (2003)). On the other hand, according to Talmy (2000:35), movement can be

defined as the Figure's change of location from one place to another. From these respects, we can say that *in* receives a directional interpretation if it marks the Figure's final state as the result of movement. For example, in (1a) *He walked in the room*, the IN_{dir} marks the Ground NP as the static location in which the subject referent was located after the movement. On the basis of the inherent property of *in*, we can establish alternative conditions for IN_{dir} on the verbs and on the Ground NPs.

Let us begin with the condition on the verbs with manner meaning. The condition on the verbs concerns the property of the IN_{dir} as a non-gradable result phrase. Since the IN_{dir} only marks the endpoint of movement, it can be conceived of as a result phrase. Moreover, the *in* denotes a static location, so the resultant state is non-gradable (cf. **John is more in the room*). As a general fact, non-gradable result phrases such as *dead* can only occur with verbs denoting punctual changes like *shoot* but not with those of gradable ones represented by *beat* (e.g. *The outlaw {shot / *beat} the miller dead*).

In light of this fact, we can assume that since the directional *in*-phrase is a non-gradable result phrase, the verb must denote a punctual event. That is, the contrast between *dance* in (3a) and *dive* in (5) is reduced to the difference in punctuality of the events denoted by the verbs. The verb *dance* describes a continuous motion, while the motion of *dive* can be regarded as punctual: only (5) is acceptable. Therefore, it is the punctuality of the verbs that makes a difference in acceptability between (3a) and (5).

Our assumption of the punctuality is supported by two pieces of evidence. First, the IN_{dir} is acceptable only in the context where the motion event is punctual:

- (7) a. [Standing just outside of the room]
John walked in the room.
b. * [Standing down the hallway from the room]
John walked in the room.

(Levin et al. (2010:16))

(7a) implies that the distance for the movement is quite short. In other words, the context *standing just outside of the room* guarantees the punctuality of the event in which John moves from the outside of the room to the inside. On the other hand, the context in (7b) implies that the distance is long. The motion event is only interpretable as durative. Hence, (7a) is acceptable, but (7b) is unacceptable. This observation empirically supports our punctuality condition on IN_{dir} .

Second, IN_{dir} is not compatible with a sentence form that represents a process,

for example, the progressive form, as in (8):

- (8) * John was coming in the room.

In general, the progressive form represents the durative event. Here again, the IN_{dir} is not licensed because the relevant motion event is interpreted as a punctual.

We now turn to the condition on the Ground NP. As proposed above, the IN_{dir} denotes the endpoint of movement. When an event is construed as a motion event, what is crucial is only a single boundary which differentiates the outside and inside of a place: crossing a boundary is understood as a change of location, i.e. movement. Therefore, for *in* to be interpreted as directional, the Ground NP must denote an entity having at least one boundary. This boundary condition accounts for the acceptability in (4a, b): *room*, *backyard*, and *store* contain well-defined boundaries, whereas *city*, *field*, and *mountain* do not contain any explicit boundaries. Moreover, there is a case where the Ground is the boundary itself as in *gate* in (9):

- (9) Who's that coming in *the gate*? (BNC)

This attested example validates our single boundary condition on the Ground NP.

Our boundary condition further explains the fact that even *the desert* serves as a Ground NP, as in (10a). Apparently, *desert* does not have any well-defined boundary and hence cannot be interpreted as a container.

- (10) a. John started in New York and he appeared in *the desert*.
 b. The eagle disappeared again but another one came in *view*... (BNC)

According to COBUILD, the verb *appear* means that someone moves into a position where the speaker can see them. In light of this definition, it may safely be said that the boundary of the vision serves as the boundary of desert, which is subjectively defined by the speaker. (10b) shows that the view itself can serve as the Ground. In these cases too, our boundary condition can explain the acceptability of the IN_{dir} .

In conclusion, we have proposed two conditions on the IN_{dir} : the IN_{dir} is acceptable if the verb can describe a punctual motion event, on the one hand; the Ground is restricted to the entity which has a single boundary separating the inside from the outside of the Ground, on the other hand. These conditions are reducible to the interaction between the semantic function of *in* and the nature of movement as a changing event.