

A Modification of the Unique Path Constraint

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1. The Unique Path Constraint

It has been pointed out that a change-of-state expression cannot co-occur with a change-of-location expression in a single clause (Goldberg (1991:368)). In (1), the change-of-state expression *black and blue* and the change-of-location expression *out of the room* are not compatible:

- (1) a. * Sam kicked Bill black and blue out of the room.
- b. * Sam kicked Bill out of the room black and blue.

Goldberg calls this co-occurrence restriction the Unique Path Constraint (UPC). She notes that sentences like (2), in which the change-of-position expression *straight* is compatible with the change-of-location expression *up*, do not violate the UPC because they satisfy condition (3). Goldberg states that this condition is applicable to change-of-position verbs such as *stand* and *sit*:

- (2) Stand up straight
- (3) [T]he object undergoing the change remains anchored at a fixed location, while rearranging parts of its extension in space. (Goldberg (1991:375))

Condition (3) states that when change-of-position is not independent of change-of-location, both of the changes can be seen as a unique change. In (2), *up* defines the motion of only a part of the body, with the legs anchored at a fixed location, which satisfies the condition. The change-of-position of *straight* is not independent of the change-of-location of *up*; therefore, both changes can be considered a unique change. Thus, (2) does not violate the UPC.

2. Apparent counterexamples to the UPC

Levin and Rappaport Hovav (1995:60) (L&RH) argue that (4) is problematic for the UPC because the change-of-state verb *crack* co-occurs with the path phrase *into the glass*:

- (4) The cook cracked the eggs into the glass.

To explain the acceptability of (4), L&RH propose an additional constraint (5):

- (5) A change-of-state verb is compatible with a change-of-location expression when the object NP can refer to two entities.

According to L&RH, (4) is acceptable because *the eggs* can refer to two entities, the content and the shell, thus satisfying constraint (5). Their explanation is also applicable to (6):

- (6) * I broke the mirror into the garbage pail.

L&RH claim that (6) is unacceptable because *the mirror* cannot refer to two entities; a broken mirror cannot be understood to refer to “a mirror.”

L&RH’s analysis appears to solve the contrast in acceptability between (4) and (6), but sentence (7a) below, which includes the NP *the mirror*, poses a serious problem for their analysis.

(7a) is acceptable even if *the mirror* cannot refer to two entities:

- (7) a. John broke the mirror into the trash can little by little.
b. # John broke the mirror into the trash can.

(7a) is acceptable in the interpretation “John divided the mirror little by little while he put the piece of it into the trash can.” In this interpretation, only a part of the mirror moves into the trash can at one time. In contrast, sentence (7b) shows that with the interpretation “John broke the mirror into pieces on the floor, and then, he put all of the pieces into the trash can at one time,” this sentence becomes unacceptable. In this interpretation, the whole part moves into the trash can at one time. Thus, L&RH’s analysis not only makes a wrong prediction about the grammaticality of (7a) but also tells us nothing about the contrast between (7a) and (7b).

3. Proposal

In this paper, I argue that sentence (4) is not a true counterexample of the UPC and can be explained by modifying condition (3). I propose that this condition can also apply to change-of-state verbs (e.g., *break* and *burn*) as well as change-of-position verbs. We can thus explain the acceptability of sentence (4): it is only the content part that moves into the glass, and the shell part remains anchored at a fixed location, say, the cook’s hands. In fact, the following sentence is not acceptable in an interpretation in which both the content and the shell move along a path:

- (8) # John broke the egg into the bowl. (Situation: John broke the egg, and both the content part and the shell part fell into the bowl.)

Our analysis also explains the acceptability of (7a). In this sentence, only part of the mirror moves at one time, with the rest of it anchored at a fixed location. Moreover, we can rule out (6) by saying that it violates condition (3); in this example, the whole mirror moves along a path, and nothing remains anchored at a fixed place.

The same explanation also holds for (9):

- (9) a. * The rocket burned into the hotel. (Jackendoff (1990:241))
b. The fire burned to the northwest, ... (F. Barstad, *Best Hikes near Portland*)

In (9a), *the rocket* as a whole moves along a path, thus violating condition (3). In (9b), however, part of *the fire* moves along a path, thus satisfying this condition.

References

- Goldberg, A. (1991) “It Can’t Go Down the Chimney Up: Path and the English Resultative,” *BLS* 17, 368-378.
- Jackendoff, R. (1990) *Semantic Structures*, MIT Press, Cambridge, MA.
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