

# On the Holistic Status of Direct Object Participants

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## Abstract

*This paper looks into certain principled connections between total object inclusion, affectedness and causality in transitive structures with self-agentive locomotion verbs. It shows that causally affected direct object participants display a holistic status involving total affectedness by the action, which imposes heavy restrictions on the repertory of verbs admitted into transitive structures. In locomotion situations in which the participant in the direct object position is not causally affected by the action, the participant's total inclusion in the action is a mere potential feature and correlates with the telicity of the motion situation.*

*Keywords: Locomotion events, transitive structures, affectedness, causality, holistic coverage*

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## 1. Introduction

It is a well-known fact that direct object position is prototypically taken up by arguments that are included in the event encoded in the verb in their entirety. The total object inclusion, i.e. the holistic status of direct object arguments, was first formulated in Anderson (1971). An often cited example illustrating the effect that the direct object position has on arguments which appear in it is the one with verbs from the *spray/load* verbal class:

- (1) a. They loaded the hay onto the wagon.  
b. They loaded the wagon with the hay.

In (1a) the whole quantity of hay was loaded onto the wagon, in (1b) the whole of the wagon was loaded with hay. This type of alternation (locative alternation) serves as a clear example of the operation of what is sometimes referred to as “the holism effect” (Pinker 1989, Gropen et al. 1991).

Apart from the locative alternation, similar meaning contrasts are encoded in other types of object/oblique alternations, for example those with verbs of consumption, hitting and cutting (cf. e.g. Broccias 2003, Levin 1993).

- (2) a. John ate the cake.  
b. John ate at the cake.  
(3) a. John hit Peter.  
b. John hit at Peter.  
(4) a. John cut the bread.  
b. John cut at the bread.

The conative alternations in (2b), (3b) and (4b) yield an atelic reading, whereas the direct object alternations yield a telic reading. In (2b), only a piece of the cake was consumed. In (3b), Peter may or may not have been hit. In (4b), the bread may or may not have been cut.

A similar contrast in meaning can occasionally be found in motion events, cf. the following example from Levin (1993: 42):

- (5) a. I pushed the table.  
b. I pushed at (/on /against) the table.

As opposed to the object alternation, the oblique alternation encodes “an ‘attempted’ action without specifying whether the action was actually carried out” (Levin 1993: 42).

Similar meaning contrasts between prepositional (oblique) constructions and their non-prepositional (direct object) counterparts can also be found in an alternation which Levin (1993) terms “preposition drop alternation”:

- (6) a. They climbed Mount Everest.  
b. They climbed up Mount Everest.

As opposed to the prepositional construction (6b), the path in the prepositionless variant (6a) yields a telic (holistic) reading (cf. e.g. Dixon 2005, Moravcsik 1978, Schlesinger 1995). The preposition drop alternation is open for several verb classes, including self-agentive verbs of locomotion (as in ex. 6).

Now, consider the following constructions which also employ self-agentive locomotion events. The direct object position is taken up not by a path (as is the case in the preposition drop alternation) but by a participant that changes its state (or its location) as a result of the movement lexicalized in the verb. The XP phrase then specifies the type of result:

- (7) a. John walked himself (/Peter) to the door.
- b. John walked himself (/Peter) to exhaustion.

In anticipation of the discussion presented in this paper, let me state here that these constructions are, maybe surprisingly, also instantiations of the holism effect.

The paper will look into the semantics of transitive structures with self-agentive locomotion verbs (i.e. those exemplified in ex. 6 and 7). More specifically, it will be concerned with how the principle of total object inclusion manifests itself at the syntax-semantics interface and how it is related to affectedness and causality.

## 2. Causally Affected Direct Object Participants

The direct object participants in the following examples are causally affected by the motion denoted by the verb:

- (8) John marched himself to the store.
- (9) John marched Peter to the store.
- (10) John danced himself to exhaustion.
- (11) John danced Peter to exhaustion.
- (12) John ran the pavement thin.
- (13) John walked his shoes to shreds.

These transitive constructions with locomotion verbs have a complex, i.e. a causative structure (on the complex status of causative events see esp. Levin and Rappaport Hovav 1999). They involve two arguments and two events, the causing event and the caused event. The external argument is represented by the causer, and the internal argument (the participant in the direct object position) by a patient (ex. 10–13) or a patientive causee (ex. 8–9). John causes himself (or some other participant) to change location (ex. 8–9), or induces a certain change of state either in himself (ex. 10) or in some other participant (ex. 11–13) by means of moving in a certain manner.

These structures encode a direct causal link between the movement and the patientive causee's change of location or the patient's change of state: being causally affected by the action lexicalized in the verb, the direct object participant undergoes some change, be it a change of location or a change of state. The close link between patienthood, affectedness and change of state (or change of location) has been frequently noted in the literature (cf. Dowty 1991 or Rappaport Hovav 2001, among many others). As Foley and Van Valin (1984: 61) put it, there exists "a clear correlation between the occurrence of an argument as an undergoer and a reading of total affectedness".

These direct object participants are thus fully-fledged patients, subject to a change whose cause is the force imparted to them by the participant in the subject position. It is a well-known fact that causativity is transitive in nature (e.g. Bierwisch 1975 or Lyons 1978) and that it involves transmission of energy (e.g. Croft 1991, 2012 or Langacker 1990). It cannot be overlooked that the transmission of energy in the locomotion events in

question is made possible precisely by the fact that the direct object position is taken up by an entity which can “absorb” the energy exerted by the mover and, as a result, can change its location or its state. In actual fact, all the constructions in question are instantiations of secondary resultative predication. As Goldberg (1995:188) observes, resultative phrases can only be applied to arguments which undergo a change as a result of the action denoted by the verb.<sup>1</sup> In addition, such arguments must be force recipients (cf. Rappaport Hovav and Levin 2001). In sum, then, direct object participants in resultative constructions are subject to change owing to the fact that they are receivers of energy which changes their external properties (their location in space) or their internal properties (their state).

As is well known, the participants in the direct object position must be totally included in the action lexicalized in the verb (Anderson 1971). Closer scrutiny reveals that this fact has one very important ramification. Direct object participants in causative structures encoding motion events can only be subject to causal force if all the aspects of the caused event are covered by the causing event. Put another way, the holistic status of such participants includes their total affectedness by the action, which, in turn, imposes heavy restrictions on the repertory of self-agentive locomotion verbs admitted into these structures (cf. Kudrnáčová 2013).

To repeat, the total affectedness of direct object participants is a reflection of the complex, i.e. causative character of the locomotion situations in question. As observed by Kudrnáčová (2013), causative structures with affected direct object participants only admit verbs that designate basic physical aspects of a motion. Aspects of movement that point to the state of the mover (or to some aspects of the overall situational frame in which the movement is set) cannot fulfil a causal role because they are not subject to the mover’s conation (cf. Kudrnáčová 2014). In other words, additional (supplementary) aspects do not have the capacity to effect the movement. The upshot, then, is that verbs bearing reference to them are not admitted into causative structures.

Let me illustrate the point by way of the example of limping. When one limps, one walks with a limp – walking is core and limping is merely supplementary. In other words, the mover’s translocation is effected by the core component of movement (walking), not by its supplementary part (limping). Therefore, the supplementary, non-core components of movement can be causally related neither to the change of location (or change of state) of the subject argument nor to the change of location (or change of state) of the object argument. Consider:

- (14) \*John limped himself to the kitchen.
- (15) \*John limped Peter to the kitchen.
- (16) \*John limped himself to exhaustion.
- (17) \*John limped Peter to exhaustion.

Last but not least, general circumstances of the motion are not subject to causal force either, cf.:

- (18) \*John jogged Peter to the park.
- (19) \*John waded Peter to the shore.

The verb *jog* encodes reference to the purpose of the motion (*jog* means, roughly, “run slowly for exercise”), the verb *wade* encodes reference to the specific type of medium in which the movement is carried out (mud or deep water).

From what has been adduced thus far it follows that the causal force, whose source is the subject participant, necessarily encompasses the caused event (i.e. the direct object participant’s change of location or change of state) in its entirety, not just its parts. This is, then, the reason why, in constructions denoting locomotion events with causative structures, all aspects of the direct object participant’s change of location or change of state are totally included in the event. Put another way (cf. the discussion above), causally affected direct object participants display a holistic status precisely owing to the fact that they fulfil the role of receivers of energy - that which is responsible for inducing their change of state or their change of location.

In sum, then, the holistic status of causally affected direct object participants is a logical outcome of the transitive causative nature of the locomotion events in question.

### 3. Causally Nonaffected Direct Object Participants

#### 3.1 Bounded Paths

Consider examples with a path of motion in the direct object position:

- (20) John swam the lake.
- (21) John climbed the mountain.
- (22) John jumped the fence.
- (23) John ran a mile.

In these examples, the direct object participants cannot become receivers of energy (whose source is the subject participant), hence they cannot acquire the status of patients. In these motion situations the direct object position is taken up by a phrase representing a path, be it a path represented by an entity existing independently of the movement (*the lake, the mountain, the fence*) or a path represented by a measure phrase (*a mile*). What the two types of path have in common is the fact that they are totally included in the locomotion event, i.e. they both display a holistic status. As observed by e.g. Dixon (2005), Taylor (1995) and Schlesinger (1995), all these transitive constructions yield a telic interpretation.

If the path of the motion appears in the oblique phrase, the telicity of the situation (i.e. the total inclusion of the path in the motion event) is a mere potential feature and depends on the semantics of the verbs and the semantics of the path (note, however, that measure phrases cannot appear in prepositional structures, hence one cannot say *\*John ran over (/ across) a mile*). Consider:

- (24) John swam across the lake. (invariably telic)
- (25) John swam in the lake. (invariably atelic)
- (26) John climbed up the mountain. (telic or atelic, depending on the context)
- (27) John jumped over the fence. (invariably telic)

As is well known, one of the factors that determine the telicity of the motion event is the boundedness of the path. Using Tenny's (1992: 8) terminology, the path "measures out and delimits the event described by the verb". Seen from the point of view of what Beavers (2006) refers to as "holistic coverage", the path has a holistic status if it is totally included in the motion. The telicity of a motion event and the total inclusion of the path in the motion are thus natural correlates.

A question arises as to whether, in prepositionless structures, the holistic status of the path is correlated with its affectedness. Seen from the point of view of transmission of energy, the lake (the mountain, the fence) are not patients because they are not recipients of force whose source is the mover. Certainly, there is direct physical contact between them and the mover, but the contact does not involve the transmission of force.

Although Beavers (2010, 2011) argues that telicity is among those features that add to the direct object participant's affectedness (in his conception, affectedness is a gradual concept), he shows, too, that affectedness and lexical aspect only display a partial correlation. Affectedness involves some change and one cannot reasonably argue that the path undergoes one. As Beavers (2010: 852) observes, "coverage of the path is not itself a type of affectedness". Schlesinger, on the other hand, contends that "a participant will be more affected when the action has been successfully completed" (1995: 66). It should be realized, however, that Schlesinger takes affectedness as aspectual-based (therefore he stresses a close connection between telicity and affectedness) whereas Beavers sees it as a genuinely semantic phenomenon.<sup>2</sup>

In sum, telicity of the path in this type of motion situation is not correlated with affectedness. Beavers (2006) also observes that affectedness must be kept distinct from telicity even though these two aspects may co-occur. Although the motion event is telic, one can hardly consider its path as affected. Admittedly, an affected argument is an argument "which measures out and delimits the event described by the verb" (Tenny 1992: 8), which, in its effect, would qualify this path as affected. It should be realized, however, that Tenny's treatment of affectedness is purely aspect-based and that affectedness in her approach is a concept that does not necessarily involve a change that the argument undergoes.

At this point in the discussion, it should be pointed out that a direct object position itself is not a guarantee that the path is totally included in the motion, i.e. that the motion event is telic. I take up this question below, in section 3.2. That the path is not affected can be verified by its failure to pass the classic diagnostic question of the *What happened to X* type (cf. e.g. Cruse 1973, Jackendoff 1990, Rappaport Hovav and Levin 2001):

- (28) \*What happened to the lake is John swam it.
- (29) \*What happened to the mountain is John climbed it.
- (30) \*What happened to the fence is John jumped it.

As Rappaport Hovav and Levin (2001) observe, the *What happened* question is a diagnostic test for singling out force recipients, i.e. participants that are subject to transmission of force.

The potentially holistic status of the path in direct object alternations can be captured from a different, ontological perspective. The holistic nature of the path is also underlain

by the fact that the paths in question (*the lake, the mountain, the fence*) are not created in the course of the motion. They are entities (*qua* places) whose physical boundaries mark the boundaries (i.e. the extent) of the motion. Consider the following situation:

(31) John walked to the store.

Here, the path that John traverses does not exist independently of his movement. That is, the path in this motion event is not an entity (*qua* a place) that exists in space (and as such can be pointed at) but is created in the course of the movement. In other words, if the motion event did not occur, this path would not be existent. In John's walking to the store, the initial point of the path is marked by the beginning of John's movement and its end-point is marked by the end of his movement (put in spatial terms, the end-point of the movement is determined by the position of the store). In this sense, then, John "creates his way" to the store, as Goldberg (1995) puts it. The upshot is that this type of motion event (that which involves creation of the path) cannot be rendered by means of a transitive construction (one cannot say *\*John walked the store* meaning "John walked to the store"). In this type of motion situation, telicity (the total traversal of the path) is dependent on the type of preposition – cf. the difference between the telic *John walked to the store* and the atelic *John walked towards the store* (the path phrase with the preposition *towards* designates a mere spatial orientation of the movement).

### 3.2 Unbounded Paths

The paths in the following examples are of a different type than those in the preceding section; cf.:

(32) John walked the corridor.

(33) John walked the streets of London.

The paths in these motion situations are not bounded, i.e. the spatial boundaries of the place (*qua* a path) do not mark the temporal boundary of a given motion. Owing to event-object homomorphism (Krifka 1998), the unboundedness of the path is correlated with the unboundedness of the motion. That is, the motion situations in question are atelic, as shown by the classic diagnostic test with temporal adverbials and with the phrase '*V X halfway*' (cf. Tenny 1994):

(34) John walked the corridor for ten minutes (/the streets of London for five hours).

(35) \*John walked the corridor in ten minutes (/the streets of London in five hours).

(36) \*John walked the corridor halfway (/the streets of London halfway).

Now, a question arises, namely, why these motion events are atelic. The reason most probably lies in the fact that the omission of the preposition effects the backgrounding of the directionality of the motion. This certainly does not mean that such a construal deprives the movement of its one-dimensionality (on one-dimensionality of movement see Jackendoff 1992, 1996). The backgrounding of the directionality of the motion means that the

movement is presented as a mode of the mover's dynamic existence which takes the form of a continuous change of the entity's location. Related to the (relatively) suppressed directionality of the movement is the fact that the directionality component in the semantics of the path is, to a certain extent, backgrounded too. Since a path is a one-dimensional piece of space that has a direction (Jackendoff 1996), and since directionality may be seen as having the capacity to convert a static piece of space into a path (Kudrnáčová 2008), the (relative) suppression of a directional dimension leads to the foregrounding of the path's spatial component. The result, then, is that the path functions as a spatial setting of the mover's movement rather than a strictly unidirectional axis of the movement (cf. e.g. *John wandered the streets of London*, which may serve as a clear example of the relative suppression of the path's directionality).

However, what remains to be answered is what deprives the path in prepositionless structures like 'walking the corridor (/the streets)' of the potential to be totally included in the motion, i.e. to acquire the holistic status. This question gains in importance in view of the fact that both the unbounded paths in examples 32 and 33 (*the corridor, the streets of London*) and the bounded paths in examples 20-22 (*the lake, the mountain, the fence*) belong to the category of "locative objects" (cf. Quirk et al. 1985: 749).<sup>3</sup> It may be that, as Taylor (1995) suggests, the inability of the path to appear in prepositionless structures is simply a matter of an idiomatic property of a verb. This question thus awaits further investigation.

#### 4. Conclusion

The discussion has attempted to demonstrate that causally affected direct object participants in transitive constructions encoding self-agentive locomotion display the feature 'holistic (total) affectedness'. The constellation of features 'causal affectedness + total object inclusion', characterizing these participants, must appear in its full form, i.e. none of the components can be missing. Although causality and affectedness may seem to be the most natural (because they are conceptually related) correlates and, as such, may seem to be the core features of a causative locomotion situation, the fact is that total object inclusion is not appended to the situation as a mere potentially realizable component. Its obligatory status conceptually follows from the inherently transitive nature of causation, involving transmission of causal force to the direct object participant and the ensuing holistic coverage of this participant (in other words, all aspects of the caused event must be subject to causal force).

In actual fact, the holistic coverage of an affected participant may be captured from a more general perspective: an affected participant can only be subject to causal force if all the aspects of the caused event are covered by the causing event, i.e. if the causing event and the caused event display a total overlap.

The discussion has also demonstrated that in transitive constructions encoding locomotion events in which the direct object position is taken up by a path, i.e. a participant that is not causally affected by the movement, the holistic status of the path is determined by its boundedness, which naturally correlates with the telicity of the situation. That is, if the

path is totally included in the motion, the motion is telic. By contrast, if the path is not totally included in the motion, the motion event is atelic. That is, in the latter type of situation, the feature ‘total object inclusion’ is naturally missing.

## Notes

<sup>1</sup> As was first pointed out by Simpson (1983), resultative phrases can only be predicated of direct objects. The reflexive (ex. 8 and 10) thus fulfils “the syntactic need for the resultative phrase to be predicated of an object” (Levin and Rappaport Hovav 1992: 255).

<sup>2</sup> Hopper and Thompson (1980: 252–253) take affectedness as “the degree to which an action is transferred to a patient”. In their multifactorial account of transitivity, the degree of affectedness of the direct object participant and the telicity of the event are two of the ten parameters which they propose as determinants of the degree of transitivity of an event.

<sup>3</sup> Measure phrases (*a mile* in ex. 23) may also be classed along with them because they represent, according to Quirk et al. (1985: 749), a related category. Nevertheless, the fact is that, as noted above, measure phrases (“phrases of extent” in Quirk et al.’s terminology) cannot appear in prepositional phrases, which marks them as a separate category.

## Bibliography

- Anderson, John M. *The Grammar of Case: Towards a Localistic Theory*. Cambridge: Cambridge University Press, 1971.
- Beavers, John. “Semantic underspecificity in English argument/oblique alternations.” *Proceedings of the 33<sup>rd</sup> Western Conference on Linguistics*. Eds. Michal Temkin Martínez, Asier Alcázar, and Roberto Mayoral Hernández. Fresno, CA: Department of Linguistics, California State University, 2006. 23–37.
- . “The structure of lexical meaning: Why semantics really matters.” *Language* 86 (2010): 821–864.
- . “On affectedness.” *Natural Language and Linguistic Theory* 29 (2011): 335–370.
- Bierwisch, Manfred. “Semantics.” *New Horizons in Linguistics*. Ed. John, Lyons. Harmondsworth: Penguin Books, 1975. 166–184.
- Broccias, Cristiano. *The English Change Network: Focusing Changes into Schemas*. Berlin: Mouton-de Gruyter, 2003.
- Croft, William. *Syntactic Categories and Grammatical Relations: The Cognitive Organization of Information*. Chicago: University of Chicago Press, 1991.
- Cruse, D. Alan. “Some thoughts on agentivity.” *Journal of Linguistics* 9 (1973): 11–23.
- Dowty, David. “Thematic proto-roles and argument selection.” *Language* 67 (1991): 547–619.
- Dixon, Robert M. W. *A Semantic Approach to English Grammar*. Oxford: Oxford University Press, 2005.

- Foley, William, and Robert Van Valin. *Functional Syntax and Universal Grammar*. Cambridge: Cambridge University Press, 1984.
- Goldberg, Adele. *Constructions: A Construction Grammar Approach to Argument Structure*. Chicago: University of Chicago Press, 1995.
- Gropen, Jess, et al. "Affectedness and direct objects: The role of lexical semantics in the acquisition of verb argument structure." *Cognition* 41 (1991): 153–195.
- Jackendoff, Ray. *Semantic Structures*. Cambridge, MA: MIT Press, 1990.
- . "Parts and boundaries". *Lexical and Conceptual Semantics*. Eds. Beth Levin, and Steven Pinker. Oxford: Blackwell, 1992. 9–45.
- . "The proper treatment of measuring out, telicity, and perhaps even quantification in English." *Natural Language and Linguistic Theory* 14 (1996): 305–354.
- Krifka, Manfred. "The origins of telicity." *Events and Grammar*. Ed. Rothstein, Susan. Dordrecht: Kluwer Academic Publishers, 1998. 197–235.
- Kudrnáčová, Naděžda. *Directed Motion at the Syntax-Semantics Interface*. Brno: Masaryk University, 2008.
- . *Caused Motion: Secondary Agent Constructions*. Brno: Masaryk University, 2013.
- . "Transitive causative constructions with verbs of self-agentive locomotion." Paper presented at the conference *Concept Types and Frames in Language, Cognition, and Science*. Düsseldorf, August 25–27, 2014.
- Langacker, Ronald W. *Concept, Image, and Symbol: The Cognitive Basis of Grammar*. Berlin: Mouton de Gruyter, 1990.
- Levin, Beth. *English Verb Classes and Alternations: A Preliminary Investigation*. Chicago: University of Chicago Press, 1993.
- Levin, Beth, and Malka Rappaport Hovav. "The lexical semantics of verbs of motion: The perspective from unaccusativity." *Thematic Structure: Its Role in Grammar*. Ed. Iggy M. Roca. Berlin: Foris Publications, 1992. 247–269.
- . "Two structures for compositionally derived events." *Proceedings of SALT 9*. Eds. Tanya Mathews, and Devon Strolovitch. Ithaca, NY: CLC Publications, 1999. 199–223.
- Lyons, John. *Semantics*. Vol. 2. Cambridge: Cambridge University Press, 1978.
- Moravcsik, Edith A. "Agreement." *Universals of Human Language: Syntax*, vol. 4. Ed. Joseph Harold Greenberg. Stanford, CA: Stanford University Press, 1978. 331–374.
- Pinker, Steven. *Learnability and Cognition: The Acquisition of Argument Structure*. Cambridge, MA: MIT Press, 1989.
- Quirk, Randolph et. al. *A Comprehensive Grammar of the English Language*. London and New York: Longman, 1985.
- Rappaport Hovav, Malka, and Beth Levin. "An event structure account of English resultatives." *Language* 77 (2001): 766–797.
- Schlesinger, Izchak M. "On the semantics of the object." *The Verb in Contemporary English*. Eds. Bas Aarts, and Charles F. Meyer. Cambridge: Cambridge University Press, 1995. 54–74.
- Simpson, Jane. "Resultatives." *Papers in Lexical-Functional Grammar*. Eds. Lori Levin, Malka Rappaport, and Annie Zaenen. Bloomington: Indiana University Linguistics Club, 1983. 143–157.
- Taylor, John R. *Linguistic Categorization: Prototypes in Linguistic Theory*. 2<sup>nd</sup> ed. Oxford: Clarendon Press, 1995.

Tenny, Carol. "The aspectual interface hypothesis." *Lexical Matters*. Eds. Ivan Sag, and Anna Szabolcsi. Stanford: CSLI, 1992. 490–508.  
---. *Aspectual Roles and the Syntax-Semantics Interface*. Dordrecht: Kluwer Academic Publishers, 1994.

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