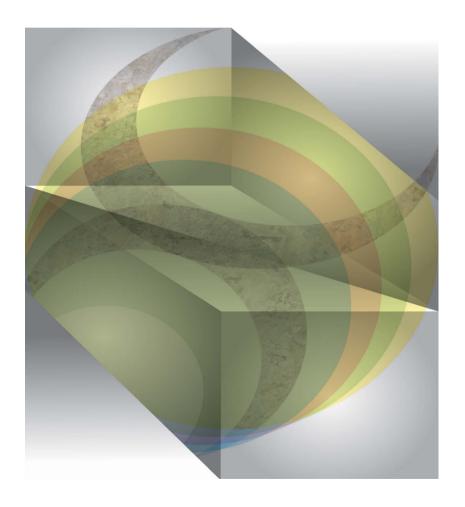
Caused Motion: Secondary Agent Constructions

Naděžda Kudrnáčová





OPERA UNIVERSITATIS MASARYKIANAE BRUNENSIS FACULTAS PHILOSOPHICA

SPISY MASARYKOVY UNIVERZITY V BRNĚ FILOZOFICKÁ FAKULTA

Číslo 420



CAUSED MOTION: SECONDARY AGENT CONSTRUCTIONS

Naděžda Kudrnáčová



Acknowledgements:

I would like to express my sincere thanks to the reviewers, Prof. PhDr. Jarmila Tárnyiková, CSc., and Prof. PhDr. Jaroslav Peprník, CSc., for their invaluable comments on this book.

Reviewers:

Prof. PhDr. Jarmila Tárnyiková, CSc.

Prof. PhDr. Jaroslav Peprník, CSc.

© 2013 Naděžda Kudrnáčová © 2013 Masarykova univerzita ISBN 978-80-210-7633-4 (online: pdf) ISBN 978-80-210-6373-0 (paperback) ISSN 1211-3034

Contents

1	Intr	roduction					
2	The Specific Semantico-Syntactic Status of Secondary Agent Constructions						
3	An	An Overview of Approaches to SA Constructions					
	3.1	Against the Small Clause Hypothesis					
4	Dire	ectional Phrases in SA Constructions					
5	SA Constructions as Verb-Class-Specific Constructions 37						
6		bal Semantics and Causal Structuration A Constructions					
	6.1	On the Applicability of Verbs in SA Constructions					
	6.2	Causal Structuration in SA Constructions					
	6.3	Intentionality of Action in SA Constructions					
	6.4	Verbal Qualia Structures in Relation to Causal Structuration in SA Constructions					
	6.5	Non-Coercive SA Constructions					
	6.6	Coercive SA Constructions					
7	Inte	ernally vs. Externally Operating Energy					
8	Fur	ther Factors Licensing SA Constructions					
9	Semantic Roles of Causer and Causee: Further Observations						
10	Age	ntivity Type in Animals 80					

11	Verbal Semantics in Relation to Pragmatic Meanings of SA Constructions
	11.1 A Note on Accompaniment Scenarios 100
12	Marginal Cases
	12.1 Body Parts as Causees
	12.2 On "Swimming the Baby to the Shore"
	12.3 On "Walking the Bicycle up the Hill"
	12.3.1 Degrees of Active Involvement of the Patient 117
13	Reflexive Constructions
	13.1 The Total Object Inclusion as Manifested in the Meaning of the Reflexive
	13.2 The Profiling of Intention in Relation to an Increase in the Patient's Affectedness
14	Summary
15	References

1 Introduction

This book investigates semantic aspects of caused motion constructions which involve the inducive causation of a self-agentive locomotion. These types of caused motion construction, commonly treated under the heading of induced action alternations and referred to here as "secondary agent constructions", are exemplified by sentences like John walked Mary to the station, John danced Mary around the ballroom or John jumped the horse over the fence. The analysis offered here demonstrates that the factors which license the formation of this kind of construction can be identified by appealing to the semantic structure of verbs that enter into them (the verbs' agentive qualia must be homogeneous and their constitutive qualia must be devoid of features that point to the state of the executor of the motion and to the circumstances accompanying the motion) and to the specific interaction between the causer's prior intention and the causee's intention in action (on qualia structures see Pustejovsky 1993 and 1995; on the distinction between prior intention and intention in action see Searle 1983). One outcome of this interaction, iconically reflected in the syntactic configuration (Haiman 1985), is a more or less balanced force-dynamic schema (on force-dynamic patterning see Talmy 1988 and 2000).

The identification of a set of principled connections that hold between the verbal semantic structure and the structure of the causative situation, in terms of the relationship holding between the causer's intention and the causee's intention, enables us to posit the transitive causative construction in question as representing a regular (and hence to a considerable degree predictable) semantico-syntactic configuration, linked in principled ways to caused motion situations that involve coercive force on the part of the causer (i.e. that display a marked imbalance in their force-dynamic patterning). Secondary agent constructions may thus be viewed as verb-class-specific constructions (cf. Croft 2003), providing strong evidence for the interdependence of semantics and syntax.

The material is taken from the British National Corpus. In some cases, in order to further substantiate the argumentation or to provide an example missing in the British National Corpus, attested examples obtained via the Google web search engine have been used.

2 The Specific Semantico-Syntactic Status of Secondary Agent Constructions

Caused motion situations expressed in sentences like John walked Harry to the door, They swam the cattle to the shore, The trainer ran the athletes around the track, John danced (/waltzed) Mary to the other end of the ballroom. John jumped the horse over the fence. John pranced (/cantered/ trotted, etc.) the horse have a specific character. The syntactic configuration 'NP - VP - NP (- PP)' is the pattern used for lexical causatives, which present situations involving the merging of the causing event and the caused event. The common way of expressing this situation is to say that the cause and the result merge (owing to the absence of a mediating event between the two subevents, the causation has been traditionally described as direct, cf. Fodor 1970, McCawley 1978, Shibatani 1976 and many others). Since lexical causatives require a single clause, they denote a single event only, which is in accordance with the general principles of iconicity in syntax (Haiman 1985). In the types of constructions under consideration, the causing event and the caused event also merge to form a single unit. Here, however, the causee's movement is not solely a result of the energy that is transmitted from the causer to the causee. The causee represents a second energy source that underlies the motion (cf. Davidse and Geyskens 1998). That is, in spite of playing a patientive role, the causee displays features characteristic of agents. More specifically, he is the executor of a volitional impulse instigating the motion and the executor of conscious control over its course. The sentence John walked Harry to the door thus entails Harry walked to the door. In other words, these constructions express situations in which both the causer and the causee actively participate in the action but each of them displays a different hierarchical position in the causal structuration of the situation: the causer assumes a dominant, controlling position and the causee assumes a subordinate, controlled position.

We may thus say that the causee plays the role of a 'secondary agent' (Lyons 1969:365 uses the term the "agentive object"). The construction expressing the caused motion situations in question will thus be termed a 'secondary agent construction' ('SA construction' henceforth).¹ Although the term 'secondary agent' is a simplified one and cannot grasp

¹ Langacker (1991: 412–413) uses the term 'secondary agent' to designate a causee that is "secondary in the sense of being downstream from the original energy source, yet agentive in the sense of having some initiative role".

all the relevant aspects of the situation, its application to the causee in SA constructions captures the Janus-headed position of this participant. In concrete terms, the causee is both a controlled participant, causally affected by the causer (the causee is the recipient of energy transmitted to him by the causer, who is a 'primary agent' in the sense of bearing primary responsibility for the action), and an agent, volitionally and consciously carrying out a given movement. The term 'secondary agent' is explicit enough to differentiate between constructions involving 'multiple agency' (on 'multiple agents' see Parsons 1994: 83) and periphrastic causative constructions, which involve what may, for the purpose of the present discussion, be termed 'double agency'. The former type of construction is exemplified by

(2.1) a) John and Harry walked to the door.b) John walked to the door with Harry.

and the latter type of construction is exemplified by

(2.2) a) John made (/had) Harry walk to the door.b) John forced (/got) Harry to walk to the door.

In the constructions in examples (2.1a) and (2.1b), 'multiple agents' have the same semantic status in that they both execute the motion denoted by the verb and, at the same time, their movements are not causally related. Certainly, the syntactic configurations in (2.1a) and in (2.1b) differ. The configuration in (2.1b) expresses what Parsons (1994: 83) terms 'displaced conjunction'; the movement of the agent in the subject position thus has a comitative flavour.

In the analytic causative constructions in the examples in (2.2), two agents are on the scene but, importantly, their actions are causally related. The operation of the causer is external because the causer remains outside the caused event, so to say. The causing event (John's action) and the caused event (Harry's movement) do not merge but represent two self-contained units (hence the provisional term 'double agency'). From this it follows that the causing event need not be cotemporaneous with the caused event (John may merely initiate Harry's movement) and, also, that the causer need not execute control over the caused movement. These facts are iconically mirrored in syntax (cf. Haiman 1985): the periphrastic construction, effecting the split between the two events, renders the relationship between them as involving conceptual distance.

A secondary agent construction shares one feature with the analytic, 'double agent' type of construction, namely, the external operation of the causer. The causer's activity stays, as it were, outside the causee's movement because the caused motion is of a type that necessarily involves internal causation in the sense of the physical genesis of the movement (put in plain words, the movement can only be executed by the causee). At the same time, however, the SA construction effects the merging of the causing event and the caused event (or, rather, the causing event is superimposed on the caused event). That is, in spite of the external position of the causer, the SA construction presents the causer as operating "inside" the caused event. In other words, it presents the causer's activity as forming an intrinsic part of the caused motion - note that the syntactic configuration 'NP-VP-NP(-PP)', encoding this very specific causative configuration, employs one verb. That is, it encodes, at a surface level, one action. The causer, functioning as the bearer of primary responsibility for the action encoded in the verb, represents "the starting point of the situation" (cf. Langacker 1990). Accordingly, he occupies the subject position, i.e. the position prototypically reserved for dominant, controlling participants. The causee occupies the direct object position, prototypically taken up by subordinate, controlled participants. Nevertheless, as mentioned above, the causee has a Janus-headed semantic status: being subordinate to the causer's activity, he is the patient, and, being the actual executor of the motion, he is the agent.

The syntactic configuration 'NP-VP-NP(-PP)', encoding this very specific causative structure, must therefore employ verbs whose semantic structure makes it possible to accommodate both the causer and the causee. The analysis presented in this study will show that what plays a role are the principled connections between verb meanings and the type of causative structuration in question. The analysis will show, too, that the factors that license the formation of SA constructions are also the prototypicality of the caused motion situation and certain systemic relations holding between syntactic constructions expressing caused motion.

By way of concluding this short discussion, a remark concerning the status of SA constructions in relation to analytic causative constructions will be in order. SA constructions (*John walked Harry to the station*) cannot be viewed as variants of analytic causative constructions (*John had (made) Harry walk to the station*) in spite of the fact that both types of construction involve 'caused agency' or 'inducive causation'. Kemmer

² The term the 'bearer of primary responsibility' is borrowed from DeLancey (1985).

and Verhagen (1994: 119-220) apply the term 'inducive causation' to analytic causative constructions of the type She made (/had) him type the letter. Talmy (2000: 474) uses the terms 'caused agency' and 'inducive causation' to refer to situations in which an animate agent induces another animate agent to act; he exemplifies this type of causation by a sentence like I sent him downstairs. (For a very informative analysis of formal and semantic aspects of have constructions see Martinková 2012.) Owing to the merging of the causing event and the caused event in SA constructions (which also includes a spatio-temporal overlap of the two sub-events), the causer is presented as exercising control over the entire movement, including the possibility of co-moving with the causee: cf. the difference between John walked Harry to the station and John had (/made) Harry walk to the station.³ The difference between SA constructions and analytic causative constructions is apparent even in situations which exclude the causer's co-movement - cf. the difference between The lion-tamer jumped the lion through the hoop and The liontamer had (/made) the lion jump through the hoop. The former sentence renders the causer as initiating the movement and as controlling its entire course, whereas the latter sentence presents the causer as a mere initiator of the movement. In actual fact, the presence of control over the entire caused movement is one of the factors licensing the formation of SA constructions of the type John swam the baby to the shore (here the baby is a patientive, not an agentive participant).

³ Goldberg (1995: 162) adduces the sentence Sam walked him to the car as a caused motion situation "involving ongoing assistance to move in a certain direction".

3 An Overview of Approaches to SA Constructions

This section offers a survey of the relevant literature dealing with SA constructions.

Lyons (1969: 365) views the pair John walked the horse - the horse walked as an ergative pair, differing from the more common ergative pair John moved Bill - Bill moved in the agentive character of the participant that occupies the subject position in the intransitive construction and the object position in the transitive construction (Lyons uses the term 'agentive object'). Lyons points out that the limits on the use of constructions of the John walked the horse type are unclear and that verbs that can appear in the pair John walked the horse - the horse walked represent a highly restricted class. He adds, too, that the difference between John walked the horse and "the more common type of 'double-agentive' sentence" John made the horse walk is that, in the former sentence, John is the direct agent (because he led the horse or rode it) while in the latter no such implication seems to be involved. Interestingly, Lyons takes the semantic role of John in John made the horse walk as neutral with respect to the distinction 'direct agent' versus 'indirect agent' (the latter being, in the majority of cases, exemplified by John had a house built).

Halliday (1967: esp. 41–47) specifies the semantic role of *he* in *he* marched the prisoners as that of the initiator (because *he* did not carry out the marching) and the role of the prisoners as that of the actor (in the intransitive variant the prisoners marched the participant in the subject position fulfils a dual role in being both the initiator and the actor). Halliday (1968: 198) takes the relationship between marched and the prisoners as "a happen-relationship"; the actor is described as the "enforced actor" (1968: 185).⁴

Davidse and Geyskens (1998), elaborating on the theory developed by Halliday (1967, 1968, 1985), regard ergative constructions with intransitive manner of motion verbs as a special class of causative constructions. In these constructions, the active participation of the causee is considerably strengthened in that the causee actually performs the action. The causee thus represents a second energy source. The criteria they use to discriminate between the different types of caused motion situation are

⁴ Poldauf (1970: 123) points out that Halliday's description of the transitive *march* in *He marched the soldiers* as 'cause to march' is too simplistic.

the following: (a) the presence or absence of physical contact between the causer and the causee in the instigation of the action (this criterion is only optional), (b) the co-extension of the instigation and the induced action (i.e. their co-extensiveness in time and place) and (c) the nature of power asymmetry (i.e. whether there is a strong or a mild power asymmetry between the causer and the causee). Davidse and Geyskens have shown, too, that these constructions do not represent a homogeneous class, both from a semantic and a syntactic point of view. They have singled out six different sub-types and have identified some of the reasons why certain causative situations do not necessitate the presence of directional phrases (against the widely held view that manner of motion verbs can causativize only when they express a directed motion).

Ikegami (1969: esp. 96-99,162-164) treats the subject in the man walked (the prisoners marched) as 'agent', and the subject and the object in the man walked the horse (he marched the prisoners) as 'agentive initiator' and 'agent', respectively. He states explicitly that these two roles "are no more than the variants of one and the same element" (1969: 97) because both refer "to something acting voluntarily" (1969: 96). He observes, too, that due to the semological status (more specifically, due to the association with voluntary movements) of verbs like march, jump or gallop, the object that is caused to move can only be the agent. Interestingly, Ikegami observes that he in he marched the prisoners displays a low degree of immediacy associated with the agent acting as a causer: he "may be a commander who simply gave an order and let his officer take care of the prisoners" (1969: 99). From this fact he concludes that this sentence "is almost synonymous with a sentence involving a simple causative verb: he caused the prisoners to march" (1969:99).

According to Cruse (1972), sentences like *The general marched the soldiers, John flew the falcon* or *John galloped the horse around the field* express "causation by command" (1972: 522). They encode situations in which "a human or hominoid causer transmits his will to an obedient, but independent agent" (1972: 521). Contradiction of any element in this causative situation produces the following deviant sentences:

Nonhuman causer: *The floods marched the army further north. Defective transmission of will of causer: ? John marched the prisoners, who did not understand any of his commands, across the prison yard. Object not obedient: ? John galloped the horse, which was being totally unresponsive to his wishes, around the field. Nonagentive object: *John flew the sparks.

In (1973) Cruse provides some more examples of deviant sentences which serve to substantiate his characterization in terms of "initiation of an action by giving a command" (1973: 20). Command causation necessitates contexts which involve (a) the agentive role of the causee (hence the abnormality of *John galloped the horse, which had died the previous day, round the field*), (b) "a channel of communication" between the causer and the causee (hence the abnormality of *John galloped the horse, with which he had no means of communicating, around the field*) and (c) "the responsiveness" of the causee to the command (hence the abnormality of *The warder marched the prisoners, who were successfully resisting any form of persuasion or command, across the yard*).

Palmer (1974) mentions SA constructions only in passing. He classes them among transitive constructions and takes the subject in a transitive construction as semantically "a further 'causative' element". Though he recognizes the presence of 'causation' in the sentence *The sergeant marched the soldiers*, he regards the sentence *He walked the children across the road* as involving "little or no causation" (1974: 92).

In Dušková (1976a), verbs that can enter into the pair he walked the horse - the horse walked are treated under the heading of one specific type of verbs, viz. those that are predominantly used in intransitive constructions. Their marked form is thus the transitive one. They can enter into transitive causative construction in which the object is the transposed subject of the intransitive construction: the prisoners marched - he marched the prisoners, the horse walked - he walked the horse, the horse galloped - he galloped the horse, the horse jumped (over the fence) - he jumped the horse (over the fence). The marked character of the transitive construction is a result of "the splitting of verbal action into two components, causation and the particular verbal action, dissociated between the two participants" (1976a: 175) and is manifested in the fact (mentioned also in Halliday 1967: 47) that intransitive constructions cannot be interpreted as involving object deletion. Transitive constructions with this class of verbs represent a special type of transitivity characterized by "the causative role of the subject with respect to the action assigned to the object" (1976a: 174) and by a highly restricted number of verbs that can enter into them.⁵ She observes, too, that the agentive character of the participant in the direct object position does not seem to be essential because the same relationship holds between intransitive and transitive constructions employing verbs that, in their intransitive use, "take non-

⁵ Kubišová, Bázlik and Votruba (2009: 89) also view the participant in the subject position as the causer and the participant in the direct object position as the performer.

agentive, 'affected', subjects": he starved - they starved him, the horse sweated - don't sweat your horse (1976a: 173). She substantiates this claim by appealing to the potential change in the semantic status of the transposed subject in transitive constructions with some of the verbs belonging to this class, namely the verbs sit up and stand (in transitive constructions with these verbs, the object may be deprived of its agentive character). In spite of this fact, she views the classification of such verbs within the class of verbs of the march, walk, jump or swim type as justified on the grounds of their syntactic behaviour.

Gruber (1976: 201–202) mentions the types of construction under consideration in passing only. He states that the causative sentence *John walked the dog around the block* has a sense of accompaniment, not present in, for example, *John moved the train along the track*, which, owing to the presence of this additional meaning component, represents a causative construction of a different type.

Pinker (1989: 225–227) observes that many of the transitive causative uses of verbs denoting voluntary locomotion in some manner (like *trot* or *gallop*) are felicitous with nonhumans (usually horses). When used with humans (*He marched the soldiers across the field, She walked her baby across the room*), they either involve accompanied motion or "involve cases that connotate something less than freely willed humanness on the part of the actor (such as soldiers or babies)" (p. 226). Pinker classifies *walk* as belonging to a separate class of causativizable intransitives denoting voluntary locomotion, namely, those that involve accompanied motion via some means such as *drive*, *fly* or *sail* (the verb *walk*, involving manner of motion, is thus an exception in this class).⁶

Brousseau and Ritter (1992: 54–55) treat what they call 'Compelled Movement Alternations' (The trainer jumped the lions through the hoop) as instantiations of indirect causation. Transitive causative verbs that appear in this type of alternation are derived from intransitive verbs (The lions jumped through the hoop) by adding a second active argument (trainer). The trainer, specified as "an indirect agent of the action", is only indirectly responsible for the movement. The reason for this is two-fold. First, the indirect agent is not the executor of the movement and, second, "although (s)he has some control over the lions, it is the lions who ultimately decide whether or not to do the jumping" (1992: 54). The other argument (lions), being the executor of the movement, is taken to be directly responsible for the movement.

⁶ In this latter class "the intransitive form is not embedded intact as an effect structure in the transitive version," hence when Bob drives Sue to Chicago, he is not causing her to drive (Pinker 1989: 226).

Levin (1993: 31) describes SA constructions under the heading of "induced action alternation". She offers the following description: (a) the alternation in question is used mainly with a subset of the *run* verbs (selfagentive manner of motion verbs, cf. Levin 1993: 265–267), (b) it differs from the causative/inchoative alternation in that "the causee is typically an animate volitional entity that is induced to act by the causer", (c) the causer may often be accompanying the causee and (d) the induced action alternation requires a directional phrase; if a directional phrase is not overtly present, it is understood (as in *Sylvia jumped the horse*). Nevertheless, the discussion presented later in this section will show that the requirement for the obligatory presence of directional phrases need not be met in all the cases (on this see also Davidse and Geyskens 1998).

Tenny (1995) distinguishes "verbs of imparting motion" (carry, push, pull, tow, drag, etc.) and "verbs of consuming distance" (walk, run, march, swim, dance, gallop, ride, paddle, drive, amble, jog, stagger, skate, ski, meander, scramble, etc.). Verbs of imparting motion take an obligatory internal argument ("translated-object"): Laura carried/dragged the package to the corner (*Laura carried/dragged to the corner). Verbs of consuming distance do not have an obligatory internal argument (Laura ambled/walked/zoomed to her door). When they occur with an internal argument (Laura walked/marched/bicycled/flew/paddled/ danced/ helicoptered her friend to her door), the causee (i.e. the internal argument) is not, strictly speaking, a translated-object. Tenny observes, too, that some of the verbs of consuming distance do not take an internal argument (*Laura ambled/climbed/plodded/crawled her friend to her door). She records these surface phenomena, without offering an analysis that would explain the partition of the verbs of consuming distance into those that can take an internal argument and those that cannot. As to the constructions of the Laura walked her friend to her door type, she refers to their description as provided in Levin (1993) and adds that, due to their agentivity, the causees in these constructions do not represent translated-objects. Although Tenny's work is more descriptive than explanatory, her observation concerning the status of the causee as the internal argument in transitive causative constructions with verbs of consuming distance seems to point in the right direction. More specifically, it conveys the idea that both the causer and the causee become part of the verb's theta-grid. This naturally poses the question of the nature of the mechanism that makes it possible to present both the causer and the causee as direct participants in the event rendered in the syntactic configuration 'NP-VP-NP(-PP)' and, also, the question of why only a limited set of verbs of imparting distance may appear in this configuration. It will be shown that the factors licensing this type of construction must be sought not only in the verb's semantics and the semantics borne by the syntactic configuration in question, but also both in the event structuration (i.e. in the type of the causal structuration of the complex situation) and in the degree of the prototypicality of a given scenario.

Smith (1978) makes an important distinction between internally controlled verbs (verbs referring to an activity which can only be controlled by the person or creature engaging in it) and externally controlled verbs. Internally controlled verbs cannot appear in transitive causative constructions (*The green monster shuddered Mary) because these constructions are only compatible with direct causation. If, however, internal control can be relinquished, the transitive construction is possible (The nurse burped the baby). Smith further observes that activities which can only be under internal control "may differ only marginally from others, which can be externally controlled; the difference is reflected by the continuum of acceptability that one finds" (1978: 107). Smith illustrates this point by way of the following examples:

- (3.1) a) John cantered the horse.
 - b) John walked the horse.
 - c) ?John ambled the horse.
 - d) *John meandered the horse.
 - e) *John moseyed along the horse.

Smith concludes that the possibility of the verb's entering into a transitive causative construction then depends on whether the activity can be externally controlled.

Drawing on Smith's (1978) distinction 'internal control' vs. 'external control', Levin and Rappaport Hovav (1995) posit the distinction 'internal causation' vs. 'external causation'. In internally caused verbs "some property inherent to the argument of the verb is 'responsible' for bringing about the eventuality" (1995: 91). In agentive verbs of manner of motion, this property is the volition of the executor of the movement; internal causation thus subsumes agency. (The reverse, however, does not hold. For example, verbs of manner of motion such as *tremble* or *shudder* are not agentive, although they are internally caused.) That is, agentive verbs of manner of motion are internally caused and as such are basically monadic and non-causative (Levin and Rappaport Hovav 1995: 110–112 and 187–189). Their transitive counterparts in transitive causative structures are derived by a process of causativization (the causative form is thus the derived form, cf. also Levin and Rappaport Hovav 1994).

All of the constructions in question imply some sort of coercion (Levin and Rappaport Hovav 1994: 72), which is why verbs describing aimless motion (*stroll, mosey, meander* and *wander*) cannot causativize (these verbs denote activities that cannot be brought about by coercion):

(3.2) *We strolled (/moseyed/meandered/wandered) the visitors to the museum.

As opposed to the referent of the direct object in sentences like *John broke the vase*, the referent of the direct object in sentences like *The general marched the soldiers to the tents* retains a degree of agentivity. The "cause" argument can only be an agent in the true sense as attested by these examples:

- (3.3) *The downpour (/The tear gas) marched the soldiers to the tents.
- (3.4) *The lightning (/The whip/The firecracker) jumped the horse over the fence.

In addition, the transitive causative use of agentive verbs of motion requires that directional phrases be present (if a directional phrase is not present, it is understood, cf. Levin 1993: 31):

- (3.5) a) The soldiers marched (to the tents).
 - b) The general marched the soldiers to the tents.
 - c) ?? The general marched the soldiers.
- (3.6) a) The horse jumped (over the fence).
 - b) The rider jumped the horse over the fence.
 - c)? The rider jumped the horse.
- (3.7) a) The mouse ran (through the maze).
 - b) We ran the mouse through the maze.
 - c) *We ran the mouse.

Building on Perlmutter's (1978) classification of intransitive verbs into unergatives and unaccusatives, Levin and Rappaport Hovav (1992, 1994, 1995) claim that the obligatory presence of directionals stems from the unaccusative status of the verbs. Levin and Rappaport Hovav claim that

⁷ Unaccusative verbs are monadic verbs whose subjects are deep-structure objects