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FOREWORD

Aleš Bičan

The present issue of *Linguistica* ONLINE brings the fourth installment of the series *Brno Studies in Linguistics* which is especially dedicated to publishing papers by linguists residing and working in Brno, Czech Republic. It features five reprints of papers by Naděžda Kudrnáčová from the Department of English and American Studies at the Masaryk University and one previously unpublished review by Lenka Dočkalová from the Department of Linguistics and Baltic Studies of the same university. We hope to continue publishing and promoting works by Brno linguists.

Kudrnáčová's articles deal with the semantics of various English verbs, something that has been a long-term topic of the author's interest. The goal and the scope of the particular papers can be deduced from abstracts to be found at the beginning of each paper, and there is thus no reason to repeat it. It should be mentioned, however, that the author took the opportunity and revised all the articles.

The paper by Dočkalová is a review of a book by Eva Tichy dealing with the structure, reconstruction and history of Proto-Indo-European, an assumed ancestor of all Indo-European languages.

ON TREMBLING AND QUIVERING^[*]

Naděžda Kudrnáčová

Abstract. This paper addresses the question of the quasi-synonymy of the verbs *tremble* and *quiver* as reflected in the differences in the verbs' collocational ranges. In the semantic content of the verbs, two tiers of components are identified, namely, the genetic tier and the physical tier. The two tiers do not have an autonomous status and neither are they mere clusters of features but represent hierarchically ordered structures. It is further demonstrated that the potential neutralization of the reference to the physical, outwardly manifested attributes of movement attests to the verbs' evaluative status. The paper also deals with certain principled connections between the semantic content of the verbs and their syntactic behaviour: the use of the progressive, the rare but possible formation of causative transitive constructions and the recategorization of the semantic content of the verbs in figurative use.

The present paper offers a contrastive semantico-syntactic analysis of the verbs *tremble* and *quiver*, with special regard to oscillatory movements of the body or the body part(s).

These verbs are frequently put in contrast and labelled as near-synonyms. The features that are usually identified vary, depending on the respective author or the respective dictionary. In dictionaries the verbs are described, apart from expressing rapid oscillations, as sharing the feature 'slightness' (cf. *Webster's New Dictionary of Synonyms* 1978: 729, *Collins Cobuild English Dictionary* 1988: 1180 and 1988: 1559, and *New Shorter Oxford English Dictionary* 1993: 2453 and 1993: 3382). The types of causes that underlie the movement are mentioned, too, but dictionaries differ considerably as to their repertory. Sometimes the same cause (e.g. fear or excitement) is used as a feature to discriminate between *tremble* and *quiver*, sometimes it is identified as a feature uniting the two verbs, i.e. as a feature that the two verbs have in common.

In Levin (1993: 223-224) the verbs *tremble* and *quiver* are adduced among the verbs of 'body-internal states of existence'. Levin states that the verbs "typically take animate objects" and "describe a physical state of the subject that typically is a reflex of a particular psychological or physiological state" and that they may have "another sense involving an inanimate subject" (Levin 1993: 224). In the latter sense they are described as 'verbs of modes of being involving motion' (Levin 1993: 251). Faber and Mairal-Usón (1999: 280) mention explicitly neither *tremble* nor *quiver*. Nevertheless, within the class of verbs of movement, they identify a semantic subgroup which they define as "to move from side to side/back and forth/up and down repeatedly" and which comprises the verbs *swing*, *rock*

[*] A revised version of Kudrnáčová, Naděžda. 2004. "On trembling and quivering". *Anglica Wratislaviensia* 42.131-44. Wrocław: Wydawnictwo Uniwersytetu Wrocławskiego. [Editor's note]

and *shake* (needless to say, oscillatory *shake* clearly belongs to the *tremble/quiver* class of verbs). Dixon (1991: 118-119) does not mention *tremble* and *quiver* either, but again, he classes the verb *shiver* as belonging to the group of ‘corporeal verbs’ denoting ‘bodily gestures’ and involving a “human role (which may be extended to higher animals)”. He states, too, that the *shiver* subgroup is constituted by verbs that cannot be used transitively, i.e. they cannot be followed by any NP. Snell-Hornby (1983: 155) classes *tremble* and *quiver* among verbs embodying movement ‘to and fro’, and characterizes *tremble* as indicating “especially fear, but also agitation or weakness”; the verb *quiver* involves “primarily a tremulous motion, as of the wings of a butterfly” and “with a human Veh can indicate anger”.

The present analysis is based on the British National Corpus. Each example is tagged with a symbol identifying the text sample from which the respective example is taken.

In the verbal semantic structure, two sets of components (two semantic tiers) can be identified. The first, genetic tier incorporates features that pertain to the genesis of the movement. The physical tier incorporates features that pertain to the physical, spatio-temporal domain of the movement.

Let us first discuss the genetic tier. This tier represents the non-visible domain and includes two components responsible for triggering the bodily movement, namely, will and a certain psychosomatic state. The operation of will is, needless to say, excluded in the oscillatory movements of the *tremble/quiver* type. Strictly speaking, the movements are uncontrollable not only in their instigation phase but also in their course (the person can, naturally, be aware of the oscillations). Consider:

- (1) Jessamy discovered that she had begun to tremble. (H8F)
- (2) He lay back in his chair limply, and felt himself begin to tremble. (HGG)
- (3) And despite herself her lip quivered, and her face began to crumple. (HE)
- (4) She trembled involuntarily when she saw him. (FRC)
- (5) Again she found that she was quivering slightly as she studied the picture of Richard Parsons. (G0P)

In the following example the operation of control over the instigation phase (or over the course of the movement) is implied. This, however, does not run counter to our above observation that oscillatory movements under investigation are not subject to the operation of will. True enough, under certain conditions will may bring them under control but this does not recategorize the movements as voluntary because the movements are, strictly speaking, triggered not by will but by some (internal or external) cause. Will can only prevent the movements from occurring or, when they do occur, terminate their progression. Such cases are, indeed, very rare:

- (6) Oliver nodded, trying hard not to tremble. (FRK)

Seemingly paradoxically, the possibility of combining the verbs with expressions unequivocally indicating the involuntary status of the movements serves as a signal that the movements may be, under certain circumstances, brought under control (see example (7)). In example (8) *almost* signals the presence of a certain, however low, degree of control over the movement:

- (7) The next second David was on his feet, crossing to his grandmother, who was trembling uncontrollably. (JY0)
- (8) She could feel her nipples hardening beneath the touch of his fingers, and her body trembled almost uncontrollably. (JXX)

In example (9) the linguistic presentation of the facts of reality is clearly marked (the person exerts full control over the instigation of the movement), and this serves a specific narrative purpose:

- (9) “Stand still!” Not daring to tremble, she saw the point of his sword coming towards her heart, and, sure that this time she would die, closed her eyes. (FRE)

As far as the types of cause underlying the movement are concerned, they may be either internal or external. Internal causes (e.g., fear, agitation, excitement, anger, cold, happiness, etc.) typically represent psychosomatic states of the person as the bearer of the motion. As to the external causes (the causes operating outside the person), they may be the movements of an entity outside the person that set the body or its part(s) into oscillatory motion. Consider:

- (10) The loose skin of Vologsky’s cheeks and lower chin quivered under the increasing pull of the G-force and his entire body seemed to take on a couple of stone in extra weight. (CDA)

The prevailing type of cause is, naturally, the internal one because the movements denoted by *tremble* and *quiver* most typically function as manifestations of the inner state of the person. It should be stressed in this connection that even when the two verbs are used in sentences where no explicit cause is stated, the cause is still there: it can be deduced, with a varying degree of certainty, from the context:

- (11) She was trembling perhaps because she’d suddenly remembered that the origin of the toast she had just drunk lay in the Viking custom of saluting each other by drinking from the skulls of their enemies. (HA5)
- (12) They had kissed and caressed, but it was deeply frustrating. Surkov’s hand trembled as he lit another cigarette. (AE0)

Even in contexts in which the concrete type of cause cannot be inferred, it is evident that the movements are underlain by some (even if not clearly specified) psychosomatic

states of the person. That is, the occurrence of the verb *per se* is indicative of a decidedly psychosomatic causation of the movement. Consider, e.g.:

- (13) A splatter of sparks fell like miniature stars, the light flickered for a fraction of a second, hissed venomously, and then splat again into darkness and silence. He was trembling now, his back still against the door, his eyes searching for the ill-formed contours within the room. “Got a match?” he asked. (ADA)
- (14) “My dear, I can’t tell you how sorry I am.” She quivered, then his gaze travelled past her, and she was unable to say with quick energy, “Daddy’ll climb right up again, he always does. He’s a brilliant player.” (G0S)

In the light of this, oscillatory movements denoted by the verbs under investigation have an indexical function in that they point to some (although sometimes not further specified) psychosomatic states of the person. It can thus be maintained that both the verbs serve an evaluative presentation of reality and as such may be labelled as *evaluative verbs*. The evaluative status of the verbs clearly shows itself in cases where one and the same oscillatory movement is referred to by two verbs: it may either be the combination of trembling plus shaking, or the combination of quivering plus shaking (in example (18) the participating entity is an animal):

- (15) He quivered, very slightly, all over, as though he were perished with cold. He simply sat there, shaking. (G0Y)
- (16) Frozen with horror, Moore moved slowly across the room. He began to shake and tremble. His strength left him, and he was unable to move a muscle. (H9U)
- (17) The king was now leaning forward. Wolsey just quivered in terror, shaking like one of the jellies his chefs had so recently served us. (HH5)
- (18) We dread having to take her to the vets for her nails to be cut. She quivers and shakes and is terrified of the surgery. (ACM)

As can be seen, shaking (which is used here as a neutral verb as to the specification of both the cause and the physical character of the movement) presents the oscillation as a mere (objective) fact, while trembling (or quivering) presents the oscillation as an outcome of some psychosomatic state, i.e. as its outward manifestation.

In this connection let us recall the fact mentioned above, namely, that the verbs under investigation are sometimes differentiated according to the type of causes they can be combined with. Leech (1983: 17) states that *tremble* and *quiver* are quasi-synonyms and differ in their, using Lyons’s terminology (cf. Lyons 1996: 62), “collocational range” (one trembles with fear but quivers with excitement). However, both *tremble* and *quiver* can combine with both the causes (so one can tremble with fear or excitement and quiver with fear or excitement):

- (19) She found she was trembling not with fear but with excitement. (CKD)

Our search for the difference in the collocational range of the verbs has not brought any positive results since both the verbs can combine with the same set of causes (e.g., anger, excitement, indignation, cold). Consider:

- (20) They trembled not from fear, but from anger and resentment which had built up rapidly in the 24 hours since he had heard [...] (CDA)
- (21) Sally began to quiver with anger. (BMW)
- (22) Richards was trembling with indignation. (HRA)
- (23) Herr Nordern's voice quivered with indignation. (A7A)
- (24) Her thin arms trembled in the cold. (FRE)
- (25) His face was dark, his fists were clenched, his body quivered with fury. (JY9)
- (26) Lady Roscarrock was quivering with the rage of one who is certain she has God on her side. (EWH)
- (27) Myles' body was trembling with anger and outrage. (B1X)
- (28) Sara's legs were trembling with exhaustion by the time she reached the stables. (A0R)
- (29) She was trembling with anger and tiredness. (HA5)
- (30) Her chin trembled with anxiety and her big, blue eyes looked far beyond Henry and [...] (ASS)
- (31) I could not like him, in fact my whole body trembled with disgust when he touched me, but I had to protect him. (FPU)

Although I have not found a single combination of the verb *quiver* with *exhaustion*, *tiredness*, *anxiety* or *disgust* in the British National Corpus, native speakers do allow such combinations.

It shows, then, that the type of cause underlying the two movements is not the feature that differentiates between the verbs and that such a feature must be sought in the physical domain of the movements. (This tentative observation is also corroborated by the fact that the two verbs may occur in sentences in which no cause is explicitly stated.)

The physical tier includes features that pertain to the physical (we may say 'visible') domain of the movement. The features specify spatio-temporal characteristics of the movement.

Let us first define the spatial attributes of the movements under investigation. The verbs *tremble* and *quiver* imply movements consisting of a number of kinetic phases. (I define ‘kinetic quantum’ in its minimum sense, i.e. as the distance between the successive points along the path. I define ‘kinetic phase’ as a sequence of kinetic quanta that follow linear progression, i.e. as a sequence of quanta without an implied reversal of direction.) As to the physical character of the kinetic phases, they are of a homogeneous character in that they follow a more or less strict linear course and are of the same, i.e. more or less regular, length. (Let me mention, for the sake of comparison, that the verb *twitch* may, under specific conditions, denote a special type of oscillatory movement which is marked by a slightly heterogeneous spatial progression.)

As far as the temporal attributes are concerned, the movements denoted by *tremble* and *quiver* involve (a) short temporal intervals both between individual kinetic quanta and between individual kinetic phases (i.e. the movements are ‘quick’) and (b) temporal regularity (time intervals are more or less the same). The latter feature excludes irregularity as implied in, e.g., the verb *twitch* mentioned above. The specification ‘slight movement’, which is often adduced as a constitutive lexico-semantic feature of the two verbs under investigation, is thus a composite term covering a short length of the phases and their quick progression. (Needless to say, the perception of the movements as ‘quick’ is also facilitated by their relatively homogeneous, i.e. ‘not ragged’, spatial progression.)

There is one more feature that characterizes the two movements, namely, their unbounded duration, i.e. an unlimited number of kinetic phases. This feature is, naturally, a result of the uncontrollable nature of the movements. We may thus say that the genetic tier shapes certain aspects of the physical tier, so the two tiers do not represent two autonomous functional domains.

The analysis of the physical domain performed up to this point has not revealed much with regard to our search for the feature differentiating between the two verbs. However, a closer analysis of sentences in which the verbs are used with the same cause shows that the two verbs imply a slight difference in the physical make-up of the movement (see especially examples (20)–(23) and (26)–(27)). Native speakers regard trembling, as opposed to quivering, as suggesting somewhat ‘more vigorous’ movements which are, at the same time, ‘more relaxed’. The specification ‘vigorous’ can be taken to indicate that the kinetic phases are slightly longer and the specification ‘more relaxed’ can be taken to indicate the absence of nervous tension in the participating body (parts). By contrast, quivering is described as ‘lighter and faster’. We would rather say that the kinetic phases are shorter and that this fact enhances the perception of the movement as quicker. (In other words, shorter distances that are traversed by the body or the body parts enhance the perception of the temporal intervals between the kinetic quanta and between the kinetic phases as shorter.)¹

Trembling, then, involves a more violent shaking than quivering. Trembling is thus typically accompanied by the modificants of the *violently* or *badly* type, whereas quivering is often used with the modificants *slightly* or *gently* or with the verb *seem*, which signals that the movement is so slight that it is difficult to discern (for example, one’s nostrils or

¹ It seems that the decision on speed is more dependent on what might be called subjective (less objective, perception-conditioned) evaluation than the decision on the length of the path. One might speculate that the two basic components associated with physical motion, namely, progression in time and progression in space, are hierarchically structured and that speed assumes a secondary status.

one's nose may quiver but not tremble because these body parts cannot be reasonably conceived of as capable of more pronounced oscillations).²

Examples with *tremble*:

- (32) His hands trembled so violently that he was unable to bring it to his lips. (H84)
- (33) The blood from my wound ran over my back and chest, and the knife seemed to burn like hot iron. But I was trembling so badly that it shook the knife out of my skin, and I could move again. (FSJ)
- (34) "How very predictable you can be at times." Robyn was trembling so hard that she could barely breathe. (HGT)
- (35) "Take the soap and lather it up," she hissed, standing, arms folded, in the doorway. I was trembling so much I kept dropping the soap but I did what she said. (HJC)

Examples with *quiver*:

- (36) And now, her face straight, her lips seeming to quiver, she went into the song; and so beautiful was her rendering of it [...] (CFY)
- (37) She nodded doubtfully, and he leaned closer to kiss her. She quivered slightly at his touch. (FRS)

The presence of more forcible oscillations in trembling is also corroborated by the fact that when inanimate entities are involved, trembling denotes more vigorous movements than quivering:

- (38) Where some of us stood watching, aghast and spell-bound by the burning horror, the ground trembled and surged violently to and fro. (CLX)
- (39) They dropped the catch as the door quivered under an enormous blow, again and again [...] (BPA)
- (40) The aircraft quivered when it penetrated the thin layers of cloud in its path. (CKE)

Consider also example (41), in which both the verbs occur. Trembling clearly indicates a more pronounced oscillation than quivering (this goes hand in hand with the type of entity involved in the motion):

² On *badly* as a manner/degree specification see Johansson 1995.

- (41) Although he had defied her before, it had only been in words but now the thought that he had the choice of putting those words into action and so set a new pattern, and in doing so break one of the threads that tied him to her, caused his whole body to tremble and his voice to quiver as he said, “Either you give me [...]” (CFY)

However, it might come as a surprise to learn that not only the verb *tremble* but also the verb *quiver* can combine with the modifiers *violently*, *badly* or *hard*, all of which denote forcible oscillations:

- (42) As she laid her hand on the little mare’s neck, she quivered violently, but didn’t move away. (CA0)
- (43) His feet began to tap more and more loudly beneath the desk and his jaw quivered more and more violently as Blanche put her side of the story and pleaded for more time to finish the investigation. (G15)

And, conversely, trembling can be presented as involving slight oscillations (note the use of *slightly*):

- (44) She tucked her dark blue silk scarf more securely into the neck of the beige jumper she wore under her thick tweed jacket. Her hand trembled slightly, a measure of her anxiety for this unpleasable child. (APU)
- (45) And Clara, overcome by the wonderful, felicitous acceptability of his offer, an offer so familiar to her, so marvelously manageable, trembled only most slightly as she said, staring down at the limp arrangements of her hands, “Qui, surement.” (EFP)

Sometimes the oscillation in trembling is so slight that, as is sometimes the case in quivering, it is difficult to discern:

- (46) They looked at the radio, as if it would tell them something, and then their cold eyes settled on Bruno, who was not laughing any more. In fact he was trembling like a leaf, but they didn’t seem to notice. (G3B)
- (47) As Mrs Lee opened the fourth one she cried out, recognizing her daughter’s face. As her cry rent the air, Mr Lee gazed at his daughter’s eyes and murmured, “I fancied I saw them tremble”. Mrs Lee felt the body, which was still warm. (BOG)

It seems that our search for the feature differentiating the two verbs has not proved successful so far. However, a closer inspection reveals that a proper analysis should take into consideration both the inner state of the participating person (his/her body parts) and the physical character of the motion itself. First let us recall the fact mentioned above, namely,

that the connection between the cause and the movements denoted by *tremble* and *quiver* is very tight. In fact, it is so tight that the movements are virtually conditioned by the cause. This is not to say, however, that the operation of the cause is less pronounced in quivering than it is in trembling just because quivering implies less vigorous movements. On the contrary, fear as the cause of the movement may operate with the same force in both quivering and trembling (this is, in fact, the reason why native speakers do not see any difference in the character of fear when combined with *tremble* and with *quiver*). However, native speakers regard quivering as ‘less relaxed’ than trembling. This evaluation suggests that quivering is accompanied by some inner tension (inner strain) in the person. The inner tension may be either mental or physical but, in any case, it is this attribute that is the strongest candidate for the feature differentiating between trembling and quivering. Note, e.g., the use of *suspense* in the following example:

- (48) “Give me the pen,” she whispered. Sam quivered with suspense. What was she going to do? (AEB)

The presence of inner tension in quivering explains why the kinetic phases are perceived as shorter and faster: forcible oscillations are impeded by inner tension. The absence of tension in trembling enables the entity to traverse longer distances (the oscillation then appears to be more vigorous). In other words, inner tension (inner strain) accounts for the difference in the physical make-up of the two types of motion.

Seemingly paradoxically, it also explains why the two verbs do not have to follow the usual physical pattern. We know already that under specific circumstances trembling and quivering indicate slight oscillations and forcible vibrations, respectively. In any case, the feature that differentiates the two movements is, again, the presence (in quivering) and the absence (in trembling) of some inner strain. When quivering is presented as very vigorous (cf. examples (42)–(43)), the operation of the cause is, due to the presence of inner strain, foregrounded. In other words, inner strain adds to the force of the cause. And, conversely, when trembling is presented as very slight (cf. examples (44)–(45)), the absence of inner strain diminishes the operation of the cause.

The following two examples serve as, to my mind convincing, evidence that the presence (absence) of inner strain is precisely the feature differentiating between the two verbs. Consider:

- (49) They were all empty, but rows of Moi females were seated along the other walls, banging the gongs and drums. All were naked to the waist, and their bodies quivered and trembled rhythmically to the beat of their instruments. (FUB)
- (50) The softly murmured name was like a hand stroking over her flesh. She started to tremble deep inside, a nervous quivering that was beyond her control. The tremors increased when fitzAlan crossed the room and hunkered down beside her stool. (HH1)

In either example the verbs refer to one and the same movement. In example (49), the verb *quiver* renders the oscillatory motion as accompanied by some inner strain and the subsequently used verb *tremble* characterizes the concrete physical properties of the movement. In example (50), the order is reversed: first the occurrence of some kind of (inner) oscillation is brought onto the scene and only then is the oscillation specified (in this case it is accompanied by inner strain). At this point of our discussion, one more thing deserves attention. The fact that *tremble* and *quiver* do not necessarily have to differ with regard to the physical, outwardly manifested attributes of the movement but differ in their reference to inner states accompanying the movement, further confirms that the verbs have a primarily evaluative status.

The fact that, in certain cases, the force of oscillation is irrelevant and that what matters is the implication of inner tension is evident in sentences with figurative uses of the verbs under investigation:

- (51) “Marriage?” The question trembled on her tongue. “But you never got in touch [...]” (HA5)
- (52) I am afraid I did not pause to read my mother’s letter, but tore open the enclosure with spastic fingers. The words quivered on the page: “You will probably be surprised at this letter,” Leslie wrote. (AMC)

In both the examples the oscillatory movements indicate some kind of anticipation (or expectation), but the verb *quiver* (in example (52)) signals an additional feature, namely, the tension in the situation as felt by the person (note also the use of the expression *spastic* indicating the presence of inner tension).

Let us at this point come back to Leech’s observation mentioned above (cf. Leech 1983: 17), namely, that trembling collocates with fear and quivering collocates with excitement. Although, as we have seen, the two verbs may combine with either cause, Leech’s observation is justified on the grounds that the two causes may differ in their nature. This requires further clarification. As opposed to fear, excitement may be seen, by virtue of its nature, as more susceptible to be accompanied by some nervous strain, which facilitates its collocability with *quiver*. By the same token, fear, marked by the absence of inner tension, may be seen as more readily collocable with trembling. We should not forget, however, that neither trembling nor quivering relate to separate sets of causes and that the said collocability expresses no more than a mere tendency, underlain by the (possible but not necessary) compatibility of meaning.

It should also be noted that we cannot put an equation mark between inner tension and nervousness. This fact manifests itself not only in the collocability of *tremble* and *quiver* with expressions denoting nervousness but also in their collocability with pleasure, joy or happiness, i.e. with favourable states that might be devoid of nervous tension. Consider:

- (53) She had bright, eager eyes like a bird, and her hands trembled nervously. She greeted Leithen warmly. (H9U)

- (54) Beside him Ratagan was quivering like a nervous horse, his eyes on fire under the bristling brows, his hand clenched on the shaft of his axe. (GWF)
- (55) The children like this part, when the mermaid comes back to life, they quiver with pleasure at the strong magic of it. (G0S)
- (56) He loved his friend, the beauty of whose manly limbs made him tremble with pleasure. (A6D)

Oscillatory movements can be, by virtue of their nature, extended in time. Both *tremble* and *quiver* can thus occur both with the progressive (which profiles the temporal extension of the movement) and with the inchoative *begin* (which marks the onset of the movement). Consider for example:

- (57) She was trembling now from head to foot. (CB5)
- (58) Her voice was quivering beneath the pressure of tears. (H7A)
- (59) He began to tremble as he stepped through the door and looked up at the dim stairway [...] (ADA)

Since trembling is devoid of tension, it lends itself more readily to extension in time, cf. examples (60)–(63):

- (60) In the near-total darkness Dong could not see the old coolie stretched out on the muddy floor beside them. He had been trembling violently for several hours but now no sound came from the place where he lay. (FU8)
- (61) Or like Jenny's mother, whose grey head trembled constantly, so that she reminded Winnie of a nodding Chinese doll she had owned as a child. (ASE)
- (62) Oh, he was a man of great wealth but at night he would awake screaming about foul, bloody murder, his body coated in sweat. Sometimes he would tremble for at least an hour, but never once did he confide in me. (K95)
- (63) Inside, she trembled continuously. (H94)

This is not to say, however, that trembling cannot be linguistically presented as covering a limited sequence of kinetic phases – see examples (64)–(66):

- (64) Her lip trembled briefly as Tony hugged her and Maureen kissed her again before they left. (G16)
- (65) She was holding herself so stiff that from time to time she trembled. (GWB)

- (66) The sun trembled for an instant on the edge of the distant hills, then started to sink behind them. (H7W)

Tension as present in quivering naturally impedes the implication of considerable duration (I have not found a single combination of the verb *quiver* with a temporal specification of the type *for several hours* or *constantly*). Consider example (67), in which a bounded (though, of course, not precisely specified) sequence of kinetic phases is implied:

- (67) Mrs Frizzel's nose quivered as she caught the scent of change. (CDN)

It will have been noted that both *tremble* and *quiver* may occur both with the simple and with the progressive. The difference between the simple and the progressive is aspectual. The progressive form presents the oscillatory movement as more vivid. The upshot is that it drags, as it were, the hearer/reader into the situation. We might even say that the progressive serves an evaluative function: by profiling the progression of the movement it emphasises the oscillation and, in doing so, it enforces the forcible operation of the cause underlying the movement, cf.:

- (68) "Look, I'm furious, I can barely contain my rage, every gram of flesh I have is quivering with anger. [...]" (HWA)

The simple form, by contrast, presents the oscillatory movement as a fact that simply happened (although even here the ties of the movement with its cause are not loosened and the verb retains its evaluative status):

- (69) His hands hung simply by his trouser pockets, ungloved, and Rudakov could see that they trembled. "More." (CJT)

- (70) "At least I won't have to pawn myself every day to Hsiao Jen like this pig-brained cretin here!" Spatz trembled with rage. "Guards!" he yelled. (GUG)

Surprisingly enough, and contrary to the observations that the verbs do not occur in transitive constructions (cf. Levin 1993: 224 and Dixon 1991: 119), both the verbs can be employed in constructions in which the subject position is occupied by the cause and the object position by the person's body or its parts:³

- (71) A slight smile quivered the ends of his mouth. (HGM)

³ Needless to say, constructions with the causative *make* or *cause* are possible, too:

Topaz gave him a smile which made him quiver pleasurably. (EVC)

Her schoolmaster father had been a disciplinarian who firmly believed that sparing the rod spoilt the child and whose memory caused many a local male heart to tremble. (ASE)

- (72) [...] but Jane Ashton was now not only the first beautiful girl Killion had kissed good night, she was the first to kiss him in return, and kiss him as if she had a great deal to give as well as take. Even now the shock trembled him, and when she put her arm in his he was afraid to speak. (HRA)
- (73) He rotated on his right heel and left toe and brought the left boot alongside the right with a delicate crash which trembled his pink jowls. (HRA)

The rare but possible formation of causative transitive constructions indicates that the facts of reality responsible for triggering the movements operate as direct causes, i.e. that they do not occupy a mere mediating position in a given causative chain.

The transitive construction, by placing the body (its part) in the object position, reinforces its passive, object-like interpretation. Although the affected status of the body (part) cannot be reasonably disputed, it is still impossible to form the passive (having, needless to say, a stative, resultative meaning): **His legs were trembled/quivered*. This restriction results from the fact that the body (or its part) does not change its final localization, i.e. no displacement is involved. This is clearly reflected in the following example, in which ‘quivering’ is followed by ‘moving’:

- (74) The bird, a small creature, abruptly fled. The thicket quivered, then moved. It dissolved into six human forms, each taking on the attributes of head and arms and limbs. (HTM)

There are signals that, in figurative use, the semantic content of certain verbs denoting bodily movements is recategorized. This fact, naturally, affects the verbs’ syntactic behaviour: the verbs can enter into syntactic constructions which are otherwise closed for them (cf. also Kudrnáčová 1996: 57). Due to their uncontrollable, nonvolitional nature, oscillatory movements of the kind discussed here do not occur in imperative sentences because, under standard circumstances, only those movements that are under the control of the agent can be commanded. Therefore, the imperative sentence “don’t tremble” in example (75) does not express a command (*tremble* is not used in its strictly physical sense), but a reassurance that the person need not be afraid (i.e. *tremble* is used here to refer to one’s inner state):

- (75) Don’t tremble – for I am near. Come into my arms, darling. (CEV)

By way of concluding the paper, let me state the following. The analysis has shown that the two tiers (the genetic tier and the physical tier) as present in the semantic structures of the verbs *tremble* and *quiver* do not operate as autonomous domains. It has shown, furthermore, that the two tiers are not mere clusters of features but represent hierarchically ordered structures. The feature that is dominant in the genetic tier is the psychosomatic cause underlying the movement because it clearly overshadows the operation of will. The dominant position of the psychosomatic cause serves to corroborate the primarily evaluative status of the verbs. The feature that ranks highest in the physical domain is the inner strain: under standard circumstances (when quivering implies slighter oscillations than

trembling) it is this feature that decides on the physical make-up of the movement. When the force of oscillation is irrelevant, it is the only feature that differentiates between the two types of movement. The analysis has also pointed to certain aspects in the syntactic behaviour of the verbs under investigation that are a direct manifestation of their semantic structures.

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ON ONE TYPE OF RESULTATIVE MINIMAL PAIR WITH AGENTIVE VERBS OF LOCOMOTION^[*]

Naděžda Kudrnáčová

Abstract. The paper focuses on a semantic analysis of one type of resultative construction with agentive verbs of locomotion (*he ran himself to exhaustion*) and its non-reflexive variant (*he ran to exhaustion*). Due to the homogeneity of the event structure of the non-reflexive construction, the property scale (pertaining to the modality of motion) and the spatial scale (pertaining to the progression in space) must be temporally co-existent and internally isomorphic. The heterogeneity of the event structure of the reflexive construction ensures that this requirement need not be observed.

This paper offers a semantic analysis of a pair of resultative constructions employing agentive verbs of locomotion, namely constructions with a resultative *to*-phrase that are marked by the presence of the reflexive (*he ran himself to exhaustion*), and their counterparts that are marked by the absence of the reflexive (*he ran to exhaustion*). Let us call the first member of this minimal pair ‘reflexive constructions’ and the other member ‘non-reflexive constructions’.¹

First we will consider reflexive constructions:

- (1) “Vampires are peculiar creatures,” he said [...] “They love a challenge. I knew one once who *walked himself to death* in sunlight, merely because someone had sneered at him for only being able to come out at night.”
http://www.twbookmark.com/books/12/0316608068/chapter_excerpt15630.html
- (2) Ian Thorpe tonight *swam himself to near collapse* in a remarkable performance to break his third world record [...]
http://www.ausswim.telstra.com.au/news/news_item.cfm?ObjectID=79&from=news

[*] Previously published as Kudrnáčová, Naděžda. 2005. “On one type of resultative minimal pair with agentive verbs of locomotion”. *Patterns: A Festschrift for Libuše Dušková* (eds. Jan Čermák, Aleš Klégr, Markéta Malá & Pavlína Šaldová), 107-14. Prague: Department of English and American Studies, Faculty of Arts, Charles University & Modern Language Association. [Editor’s note]

¹ It must be pointed out that native speakers usually doubt the plausibility of the non-reflexive construction of the kind under consideration, which, beyond doubt, reflects its truly marginal status – more so in view of the fact that, in order to gather enough material for the analysis, I was forced to use the Google web search machine and not the British National Corpus.

- (3) Four days a week you can find these athletes *running themselves to exhaustion*, developing new moves, and refining fundamentals [...]
<http://www.colorado.edu/StudentGroups/ColoradoMensLacrosse>
- (4) But many of the otters, even the younger, fitter ones, found themselves falling behind. In the end, many of the otters *marched themselves to exhaustion* without satisfying Gorse's pace requirements.
<http://redwallfanfiction.com/index.php?s=b27483d9adef65963da63d5a76acc14b&showtopic=11>

The single participant in reflexive constructions is both an agent (appearing in the prototypical subject position) and a patient (appearing, in the form of a reflexive, in the prototypical object position). In other words, the single participant, combining both agenthood and patienthood, assumes a Janus-headed semantic position. Following Pauliny's lead (cf. Pauliny 1943), we may say that the motion originates in the agent and comes back to him (Saksena 1980 uses the term 'affected agent').

The dual semantic role of the participant, underlain by the transition of the effects of motion onto the agent, is a natural outcome of two facts:

- (a) the motion event can be broken down into two functionally dependent, yet distinct sub-events: the event of running and the event of becoming exhausted;
- (b) there is a causal link between the two.

The observation that resultative constructions have a complex, and hence a causative, nature is not a novel one (recently, it has been argued for by Rappaport Hovav and Levin 2001, and Levin and Rappaport Hovav 1999, inter alia).

Let me point out, too, that the Janus-headed semantic status of the participant is in line with the semantic status of the resultant state. More specifically, the resultant state is construed as an effect that the motion exerts upon its executor. Put another way, the final state of the agent has the status of a (genuine) result.

In non-reflexive constructions (*he ran to exhaustion*), however, the event represents an internally homogeneous unit, not easy to break down into two sub-events. This is the reason why we cannot establish a causal link between the movement and the final state.² In other words, the motion, in contrast to the motion in reflexive constructions, does not fulfil the role of a causer. The non-reflexive *he ran to exhaustion* therefore offers a paraphrase in the form "his running was executed to the point of his exhaustion" or "he ran until he was (completely) exhausted", whereas the reflexive *he ran himself to exhaustion* can be paraphrased as "his running brought about his state of exhaustion". Consider:

- (5) She had the reputation of being a frivolous coquette, abandoned herself eagerly to every sort of pleasure, *danced to exhaustion*, laughed and jested with young men, whom she received in the dim light of her drawing-room [...]
<http://www.bartleby.com/319/2/7.html>

² Let me point out that the *to*-phrase in directed motion constructions of the *he ran to the store* type also fulfils the function of marking the final quantum of motion. But in this case it does so on a strictly spatial scale, not on a property scale.

- (6) He had not listened when the instructor recommended that he get a 3mm shorty. He did not agree that he needed help so he *swam to exhaustion*.
<http://geocities.com/wetnwilddivers/newsJune2002pg3.html>
- (7) In a 1995 study published in the Journal of Applied Physiology, 14 runners *ran to exhaustion* in 75 degree heat under normal conditions and after pre-cooling in a chamber for 30 minutes at 41 degrees.
<http://www.copacabanarunners.net/i-pre-cool.html>

In reflexive constructions, the primary position is taken up by the caused event (e.g., the event of becoming exhausted). The movement itself, bringing about a resultant state, assumes a mediating role only - in other words, it plays a secondary role.

The primary semantic position of the caused sub-event in a reflexive construction receives support from certain linguistic facts. Consider:

- (8) He quickly ran himself to exhaustion.

The sentence implies that the motion brought about the given state of the agent quickly, and not that the agent's quick motion brought about his state of exhaustion. That is, the manner adverbial *quickly* modifies not the causing sub-event (the motion *per se*), but the caused one (the attainment of a given state).

Another piece of evidence in favour of the primary status of the caused sub-event is provided by commands. If the participant is asked to, e.g., "dance himself to exhaustion", he is asked to bring about the state of exhaustion by means of engaging in the given type of motion, cf. the following example:

- (9) Take part in events, compete in contests, and *dance yourself to exhaustion!*
<http://www.play.net/mo/events/day.asp?ID=1020&date=3%2F10%2F2002>

That is, the person is not asked to execute the motion in a certain manner (i.e. up to the point of exhaustion). This interpretation would obtain if the participant were asked to "dance to exhaustion" as is the case in (10):

- (10) Be aware of your own limitations; *do not dance to exhaustion* and rest strained or cramped muscles. Focus on correct technique [...]
<http://www.coursejunction.com/coursedetail.cfm/id/11642>

It is clear, then, that in the reflexive resultative domain, the command relates to the caused sub-event and not to the causing sub-event. This fact is a clear signal of the semantic precedence that the caused sub-event takes over the causing one.

So much for the event structure of the two types of resultative constructions. Let us now concentrate on other aspects of their semantic structuration which are tightly linked to the abstract event structure as discussed so far.

In the non-reflexive construction, the agent's state represents an end-point on a property scale marking the intensity of motion as its kinetic characteristic (needless to say, the kinetic intensity is expressed indirectly, via reference to the given state). The property scale pertains to the modality of motion, whereas the spatial scale pertains to the progression in

space. The motion, ending with a certain state, follows an axis that combines progression along a spatial scale and progression along a property scale. It is essential that the two scales be temporally co-existent and have isomorphic structures. This stipulation ensures that the final point on the spatial scale (the final kinetic quantum of motion) coincides with the final point on the property scale (the end-state of exhaustion). That is, this stipulation ensures that

- (a) the motion (necessarily) ends with the attainment of a given state;
- (b) the motion is telic, with the oblique phrase functioning as the event delimiter.

The mergence of spatial progression and property progression has an important ramification. The agent's resultant state, corresponding to the last kinetic quantum of motion, is construed as a characteristic (albeit indirect) of the modality of motion. In concrete terms, the state of exhaustion in the example below specifies, via reference to the agent's final state, the intensity of motion. Needless to say, intensity of motion (or any other aspect of the kinetic modality of motion) is a semantic feature which represents an inherent property of motion, i.e. represents such a characteristic of motion as conceptually follows from its nature. Cf.:

- (11) What explains the determination and perseverance of these regiments at the great Civil War battles, such as Fredericksburg [...], or Chancellorsville where the 5th Virginia *marched to exhaustion* in "Stonewall" Jackson's great flanking manoeuvre and then delivered a full-force assault?
<http://valley.vcdh.virginia.edu/Reference/rosters/intro.html>

Example (12) demonstrates the observation made above, namely that, in non-reflexive constructions, the last kinetic quantum of motion and the attainment of a certain state represent temporally co-existent and conceptually equivalent aspects of the motion situation:

- (12) He had some degree of first-hand knowledge of the matter from an early age, having barely survived drowning after attempting suicide by *swimming to exhaustion* in San Francisco Bay [...]
http://explorenorth.com/library/yafeatures/jack_london.html

Here, the state of exhaustion necessarily marks the final kinetic quantum of motion. This is not to say, however, that one cannot commit suicide also by swimming *oneself* to exhaustion. The non-reflexive construction establishes a direct causal link between the motion (carried out to complete exhaustion) and the ensuing death, whereas the reflexive variant establishes a direct causal link between the state of exhaustion (induced by the motion) and the ensuing death. This fact, also, testifies to the primary status of the caused sub-event (the attainment of a resultant state) in the reflexive presentation of the situation and to the secondary status of the causing sub-event (the movement *per se*). The primary status of the caused sub-event can also be considered in the light of general semantico-pragmatic considerations: the caused sub-event represents the result of action and is therefore a bearer of greater semantic weight than the process leading to it.

It will have been seen that, in the non-reflexive construction (*he ran to exhaustion*), there is a tight conceptual link between the motion and the resultant state. The resultant state, marking the final kinetic quantum, points to a specific aspect of the kinetic modality of motion (it designates its intensity via reference to the agent's state). In other words, the change of state is construed as a specific manner of motion and cannot thus be labelled as an effect which the motion has on its executor. From this it follows that there is a tight conceptual link between the motion and the resultant state.

In the reflexive construction (*he ran himself to exhaustion*), the resultant state has a different position. It does not form an integral part of the motion, because it denotes not the manner of motion, but the effect it has on its executor. Therefore the conceptual link between the motion and the resultant state is not that tight.

Let me illustrate the point by way of the following two examples:

- (13) *He walked to death.
(14) He walked himself to death.

The implausibility of (13) stems from the fact that death, as opposed to, e.g., exhaustion, cannot be an integral part of motion because of the conceptual incongruity of the two. In other words, it cannot designate the final kinetic quantum because it cannot denote any aspect of the kinetic modality of motion. This is not to say, however, that it cannot function as the effect that motion exerts on its executor (note the plausibility of 14).³

Let me at this point offer a pair of sentences with an agentive verb other than that of locomotion as an instructive illustration of the difference between the non-reflexive and the reflexive presentation of the facts of reality. Compare the non-reflexive construction

- (15) A person must *work to exhaustion* to achieve success.
<http://www.nfib.com/object/4168185.html>

with its theoretically possible reflexive counterpart:

- (16) A person must *work himself to exhaustion* to achieve success.

While the non-reflexive construction says that “one has to work very hard in order to be successful” (i.e. the resultant state of being exhausted designates a manner of action), the reflexive variant receives a somewhat bizarre semantic reading, which can be worded as “one has to reach the state of exhaustion in order to be successful” (the resultant state functions as an effect which the action has on its executor).

The claim that phrases denoting the agent's state (such as *to exhaustion*) function as specifications of a kinetic modality of motion may, theoretically, be invalidated by appealing to the conceptual difference between one's state and the kinetics of motion. However, the following example demonstrates that the agent's state does fulfil the function of pointing to a purely physical (kinetic) aspect of motion. Cf.:

³ Let me substantiate my argumentation also by means of the example taken from Goldberg and Jackendoff (2004: 550): *The tiger bled to death*. *Death* here is conceptually linked to the nature of bleeding, and can thus designate its final quantum.

- (17) Vary your paces from time to time. Don't *run to exhaustion* on every run.
<http://www.baytobreakers.com/info/trainingtips.html>

To exhaustion refers to an intensity of motion. Roughly, it comes close to the meaning “at a high speed” (note the wording *vary your paces*). This appears to be the reason why the co-occurrence of a direct, i.e. explicit, specification of speed and the *to*-phrase denoting the intensity of motion (via the agent's state) is unacceptable:

- (18) *He quickly ran to exhaustion.

From the requirement of the temporal co-existence and internal isomorphism of spatial and property scales, as valid for non-reflexive constructions, it follows, too, that the movement cannot proceed after the given state has been reached, because the final property quantum must correspond to the final kinetic quantum. Consider, in the light of this observation, the non-acceptability of

- (19) *He ran to exhaustion on his way to the store.

The processual, unbounded phrase *on his way to the store* requires the presence of an atelic, unbounded movement, but the motion here is, due to the presence of the delimiting *to*-phrase, bounded.

In reflexive constructions, the requirement of the temporal co-existence and internal isomorphism of spatial and property scales need not be observed. The reason must be sought in the character of the event structure of reflexive constructions. In contrast to their internally homogeneous non-reflexive counterparts, reflexive constructions have a heterogeneous event structure, involving two sub-events. This fact enables one to linguistically grasp a situation in which the motion continues even after the resultant state has been reached. Cf. the theoretically possible sentence

- (20) He ran himself to exhaustion on his way to the store.

Let me, by way of concluding my analysis, add one remark concerning the iconicity of the syntactic constructions under consideration. In non-reflexive constructions, the state, marking the final quantum of motion, is, as we know, construed as an inherent part of motion, as its manner *sui generis*. This close semantic relationship between the motion and the final state is reflected also in form: the absence of the reflexive ensures that the relationship between the verb (designating the specific type of locomotion) and the oblique phrase (designating the last quantum of motion via reference to the agent's state) is presented as a very close one. In reflexive constructions, by contrast, the reflexive separates the verb from the oblique phrase and in this way expresses a looser relationship between the motion and the resultant state.

It has been proven, I hope convincingly, that each of the two resultative constructions under consideration displays a specific event structuration (and hence a specific construal of the resultant state) and that the omission of the reflexive results in a (regular) change in

the construction's semantic configuration, and is thus semantically motivated. More specifically, it has been proven that resultative phrases can be predicated not only of objects (*he ran himself to exhaustion*), but also of agents (*he ran to exhaustion*). This very fact serves as evidence against Simpson's (1983) radical grammatical view claiming that resultative phrases can only be predicated of underlying objects. This stipulation has been adopted by a number of researches, among others by Levin and Rappaport Hovav, who gave it the now widely accepted term 'the direct object restriction' (1992: 266). Levin and Rappaport Hovav claim that the reflexive "seems only to fulfil the syntactic need for the resultative phrase to be predicated of an object" (1992: 255). This syntactic generalization has been captured by Goldberg (1995) from a purely semantic perspective. In line with her construction theory founded on the basic idea that, roughly speaking, constructions have semantics. Goldberg observes that resultative phrases "can only be applied to arguments which potentially undergo a change of state as a result of the action denoted by the verb" (1995: 188).

The present paper demonstrates that – in view of the semantic difference between the reflexive resultative construction and its non-reflexive variant – the factor motivating the occurrence of the reflexive in the object position is primarily a semantic, not a purely grammatical one. In other words, the presence or, by the same token, the absence of the reflexive has a definite, marked bearing upon the semantic structuration of the motion situation in question.

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ON THE SEMANTICS OF ENGLISH VERBS OF LOCOMOTION^[*]

Naděžda Kudrnáčová

Abstract. The paper offers a semantico-syntactic analysis of a selected group of English verbs of locomotion, namely those that represent a borderline category between manner of motion verbs and path verbs. The analysis shows that in the verbs under investigation (a) directionality of motion does not have an additional status, (b) the sparsity of information about the manner of motion is conceptually related to the obligatory presence of a directional goal of motion and (c) the verbal semantic templates represent hierarchically ordered structures.

The present paper offers a semantic analysis of a selected group of manner of motion verbs with special regard to the meaning component ‘directionality of motion’. The verbs under investigation are those that carry explicit information about a high speed of motion, namely the verbs *dart*, *race*, *dash*, *speed*, *whisk*, *hasten*, *hurry*, *rush*, *bolt*, *scoot*, *hurtle*, *tear*, *shoot* and *zoom*.

These verbs are commonly classified among verbs that express manner of motion (cf., e.g., Levin 1993, Narasimhan 2003) because, needless to say, speed of motion is a feature that pertains to the kinetic modality of motion. Manner of motion verbs in general do not encode information about any specific direction of motion (*He ran*, *He walked*), unless they combine with an explicit directional phrase (cf., e.g., Levin 1993: 267): *He ran to the store*, *He walked to the store*. By contrast, the path verbs (*arrive*, *come*, *go*, *leave*, *enter*, *return*, *depart*, etc.) are mute about any specification of the manner in which the movement is carried out. These verbs are also called “verbs of inherently directed motion” (cf., e.g., Rosen 1984, Levin and Rappaport Hovav 1992) because they include “a specification of the direction of motion, even in the absence of an overt directional complement” (Levin 1993: 264), cf. *He entered*.

Although it is known that manner of motion verbs do not form a uniform class but involve a number of sub-types (cf., e.g., Miller and Johnson-Laird 1976), they are all considered to share two meaning components, namely the presence of information about the kinetic modality of motion and the absence of information on the directionality of motion. Contrary to this view, I claim that not all members of this class behave uniformly in this respect – more specifically, that certain verbs specifying a high speed of motion are not devoid of the component ‘directionality of motion’. Consider the following examples dem-

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onstrating that the manner of motion verbs under investigation are obligatorily accompanied by phrases indicating the locational goal of motion or the path that is traversed:¹

- (1) She darted into her bedroom and reappeared with a cut-glass bottle of a very expensive make. (H8J)
- (2) [...] I raced into the house, dialled the BBC [...] (H9Y)
- (3) He sped away back to the car and we could hear his urgent voice, though not the words. (ADY)
- (4) [...] she flashed the smile one more time – and then whisked away to her own cabin. (G3G)
- (5) Irina had dashed into the bathroom and was washing her hair [...] (APM)
- (6) He concluded that after the main chute had failed to open, Mr Tipping (34) either could not locate the handle for the reserve chute or possibly pulled the dummy by mistake as he hurtled towards the ground. (HJ4)
- (7) I bundled him into the car and zoomed off to the nearby University Herbarium with a whole leaf of the plant. (BMD)
- (8) He tore towards her, menace in every line of him [...] (JYC)
- (9) She shot into the bedroom like a released balloon. (CKE)
- (10) They spotted Sandison's approach and raced towards him. (ASN)

Directionality of motion does not have to be expressed solely by means of prepositional phrases employing the prepositions *to*, *into* or *towards*. Consider the following examples with the prepositions *on*, *along* and *across*:

- (11) He rushed along London Street and Bridge Road so fast that he puffed and staggered the last few yards [...] (BP1)
- (12) He hurried across to greet them, his ruddy face [...] (GVP)
- (13) They drove through Port Philip and sped on down south. (Collins Cobuild 1988: 1401)
- (14) He came out of the hole and tore across the hill faster than any creature in the world. (EWC)
- (15) They hurtled across the landing. (AEB)

The phrases with the prepositions *on*, *along* or *across* specify the path by indicating the vectorial character of the motion. It is well known that a constitutive property of a vector is its directedness. From this it follows that the reference to the vectoriality of motion indicates its directionality. This is the reason why some of the verbs from the verbal group in question can also combine with phrases that do not necessarily encode that a certain location is reached, as the above set of examples demonstrates.

At this point, a few remarks on the verbs *hurry*, *hasten*, *rush* and *speed* are in order. These verbs generally express the idea that someone performs some action quickly, e.g. *We hurried to finish our work*, *We hastened to tell him the good news*, *We needn't rush*, *He*

¹ The analysis is based on examples taken mainly from the British National Corpus (the bracketed symbols after the examples refer to the text samples from which the examples are taken) or from *Collins Cobuild English Language Dictionary* (1988).

sped to meet her. This means that they do not explicitly express locomotion by a human agent. However, they do so if the sentence contains an expression that encodes a locational goal of motion or the path along which the agent moves – cf. the following examples:

- (16) She sped into the half-light, aiming well to the left of the sound. (FP0)
- (17) Montgomery put down the telephone as Sergeant Bird hurried into the library on the tail of his brisk knock. (C8D)
- (18) She then hastened to the dining room, expecting [...] (HHB)
- (19) [...] we rushed to the sitting room to put on the TV. (A57)

Although Levin (1993: 105) enumerates the verbs *hasten*, *hurry* and *rush* as belonging to the manner of motion class of verbs, she is, to my mind, not correct in interpreting the verb *hurry* in the sentence *Maggie hurried through the museum* (Levin 1993: 271) as a general verb of rushing and not as a motion verb. It is clear that the prepositional phrase *through the museum* brings about (or, is a signal of) a shift in the verb's categorial meaning: the verb is used in a translocational sense here.²

It is interesting to note that some of the verbs from the verbal class under investigation clearly encode direction although they are not accompanied by any goal or path specification, cf.:

- (20) He's been warned not to try and bolt. (Collins Cobuild 1988: 149)
- (21) Since Tweed appears to have scooted, are you sending out a general alert [...] (ARK)
- (22) I'd better scoot. (Collins Cobuild 1988: 149)

We see that the verbs *bolt* and *scoot* lexicalize direction of motion even in the absence of any path or goal phrase, in spite of the fact that both the verbs belong to the manner of motion class. The reason lies in the fact that they incorporate information about the starting point of motion (*bolt* and *scoot* mean, roughly, 'leave a certain place'). It is clear, then, that the starting point of motion fulfils the same function as the locational goal of motion, i.e. that it indicates directionality (in the case of the verbs *bolt* and *scoot* even without the use of particles, i.e. without what Talmy (1985) called the verb's 'satellites'). The function of the particles to indicate directionality of motion can be illustrated in the following set of examples, in which the 'satellites' *out*, *off* and *away* indicate directionality of motion via referring to its starting point:

- (23) I started to tell you earlier, but you dashed off. (H7W)
- (24) As the young boy sped off to reassure his worried employer, the two constables walked the few hundred yards [...] (ANK)
- (25) Pete shot out with his hair standing on end like the bristles of a brush. (CDM)

² This fact may be taken as evidence in support of the construction grammar (on this see, e.g., Goldberg 1995). In line with this theory, the presence of the directional phrase should be seen as necessitated not by the semantics of the verb, but by the semantic requirements of the given type of construction. In other words, translocational meaning of the *hurry* sub-group of verbs should be interpreted as pertaining to the specific syntactic configuration, not as a feature inherent in the verb itself.

- (26) I have never left a vehicle more quickly in my life. I flew over Paddy's shoulders, bounced off the bonnet and rushed away like a madman. (AR8)

Needless to say, the function to indicate the starting point of motion can also be fulfilled by a prepositional phrase with the preposition *from*:

- (27) Ana turned and bolted from the room. (EWH)
 (28) Then she tore from the room. (CB5)
 (29) Swiftly before whoever it was could ring again, Leith sped from the kitchen. But she discovered she had delayed too long [...] (K5D)

The obligatory presence of a locational goal (or the path traversed in the course of movement) attests to the fact that in the verbs under investigation, directionality of motion is not a mere potential feature. It is an obligatory component that completes the verb's meaning. This means that in these verbs, directionality of motion does not have an additional status. It arises from the core meaning of the verb itself and not compositionally, through the addition of a directional phrase. From the non-additional status of the meaning component 'directionality of motion' it follows that phrases encoding the goal or the path of motion have the status of arguments, not of adjuncts. In connection with this, let me mention Goldberg's test in the form 'no -ing occurred', which she proposed as a "useful heuristic for determining the verb's basic meaning" (cf. Goldberg 1995: 43). The unacceptability of 'no darting/tearing/dashing etc. occurred' shows that directional phrases are complements of the verb. From this it follows that directionality of motion belongs to the conceptual structure of the verbs in question and, therefore, it directly manifests itself at the syntactic level.

We have seen, then, that in the verbs under investigation manner of motion is not in complementary distribution with direction, as it is sometimes claimed (cf. Levin 1993: 252). A question may now be posed, namely which component in the semantic structures of the verbs in question is responsible for the obligatory presence of directionality of motion. First, let me recall that the verbs, apart from denoting a high speed of motion, provide very sparse information about concrete physical attributes of motion. For example, the verb *speed* may refer to a motion carried out on foot, but one may speed somewhere in a car or on a bike, *hurtle* may refer not only to walking or running but also to falling (cf. example (6)), *whisk* may refer to a movement carried out by animate beings that have no feet (snakes whisk into holes), etc. It would, therefore, be tempting to assume that the factor that is responsible for rendering the motion as directed is represented by the manner component 'a high speed of motion'. There are three reasons that might speak in favour of this assumption:

(a) High speed is a central semantic feature in the class of verbs under investigation (the term 'central semantic feature' is borrowed from Cruse 1986 – it is a feature that is common to all the lexemes belonging to a given class).

(b) In the verbs under investigation, high speed does not have a mere derived status. Let me explain the point in the example of the manner verb *run*. This verb does not carry ex-

plicit information about the presence of high speed. In Kudrnáčová (2003) I claimed that in running, high speed of motion is a secondary semantic feature because it only follows from the kinetic character of the respective motion, which also explains why the combination of *run* with *slowly* is not paradoxical. By contrast, the verbs under investigation provide sparse information about a specific kinetic modality of motion, which ensures that speed assumes a dominant position in their semantic structures – note in this connection the unacceptability of the combination of these verbs with the adverb *slowly* as in **He rushed slowly to the door*.³

Let me, in connection with the discussion on the functional position of the manner component ‘high speed’, point out that its dominant position is underlain by the considerable sparsity of information about other manner characteristics of the motion. From this fact it follows that the component ‘high speed’ may operate independently of other manner components. Put another way, it does not require that other manner components be present (recall that, as mentioned above, in the verbal group under investigation high speed does not have a mere derived status). It appears that the component ‘high speed’ is a manner component *sui generis*, which manifests itself also in its ability to single out the verbal class in question as a special category.

(c) High speed is, on semantico-pragmatic grounds, closely related to a locational goal, i.e. to the purpose of the movement. Therefore, it seems to be high speed that determines the obligatoriness of the component ‘directionality of motion’.

However, the decisive factor in rendering the movement as directed is not high speed but the relative sparsity of information about the kinetic modality of motion. Let me adduce two arguments in support of this assumption.

The first argument concerns the relationship between directionality and purpose of motion. It is certainly true that the two concepts are related and typically occur together. But they do not need to. For example, jogging or running need not be directed (i.e. need not be aimed at achieving a certain locational goal), and still may be carried out for some purpose (e.g., one may jog or run for exercise).⁴

The second argument concerns the considerable sparsity of information about a more or less precise kinetic modality of motion as manifested in the verbs in question. Let me explain the point in the example of the manner verbs *sprint* and *spurt*, which also provide unequivocal information about a high speed of motion but in which, in contrast to the verbs under investigation, the reference to manner properties other than high speed is not backgrounded to such a degree (note that *sprint* and *spurt* denote a specific type of running). This shift in the semantic weight brings about a relative backgrounding of the reference to a directional goal of motion. This is the reason why Goldberg’s test yields a more or less acceptable result: ‘No sprinting/spurting occurred’. Note also that one can say, e.g., *I*

³ In spite of lexicalizing high speed, these verbs can combine with adverbs of the *quickly* type (*He rushed quickly to the door*). As Cruse (1986: 108) observed, such a combination is not pleonastic since it brings about an intensification of meaning.

⁴ As pointed out by Taylor (1996: 29), “*jog* tends to be infelicitous not only with expressions of goal, but with directional prepositional phrases in general,” so one cannot *jog to catch the bus* or *jog after someone*.

wasn't used to sprinting the last two miles (but one cannot say *I wasn't used to darting the last two miles*).⁵

The sparsity of information about the kinetic modality of motion has an interesting ramification. The verbs in question present movement basically as a change of location, with other manner components (with the exception of speed) being pushed into the background. The obligatory presence of the meaning component 'directionality of motion' brings these verbs close to the path verbs.

It may be maintained that, owing to the obligatory presence of directionality of motion and the relative sparsity of information about the manner of motion, the verbs in question belong to the path class. It should be realized, however, that these verbs can combine with path verbs (which are, as mentioned above, devoid of any specification of the kinetic modality of motion). This shows that the two groups of verbs cannot be put on a par. Consider the following examples, in which the path verbs *come* and *go* present motion as a pure change of location and the verbs from the group under investigation specify the manner (high speed) in which the displacement is carried out:

- (30) He and Mr Taylor came tearing down the yard to see what was up. (CDM)
- (31) As Guy sat contemplating this conclusion, a fair-haired child came racing around the corner of the north tower. (HH1)
- (32) The Lorrimores, followed by everyone still in the dining room, went dashing off into the dome car, but Emil and I [...] (BP9)
- (33) She glanced back just as she was about to turn a corner, and saw Joe as he came hurtling out of the side-exit. (GW0)
- (34) [...] until finally whatever had been holding him released its grasp and he came shooting to the surface, only to begin falling sluggishly back again as a dead weight. (ADY)
- (35) The Sergeant came rushing in from next door. (ACE)
- (36) Enid Nightshade [...] came zooming over the treetops and screeched to a halt so forcefully that her cat and suitcase shot off the back and [...] (CCA)

In conclusion, let me summarize the main points. In the verbs under investigation, (a) directionality of motion does not have an additional status, (b) the sparsity of information about the manner of motion is related to the obligatory presence of a directional goal of motion, and (c) the verbal semantic templates are hierarchically structured, with the manner component 'high speed' assuming a dominant position.

⁵ This is not to say, however, that the verbs *sprint* and *spurt* cannot occur in contexts in which a locational goal of motion is specified (*He sprinted to his car*, *The runner spurted for the line*), because high speed is, as mentioned above, closely related to the purpose of the motion.

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ON THE INTERNAL SEMANTIC STRUCTURE OF VERBS OF CORPOREAL MOTION FROM THE PERSPECTIVE OF THEIR KINETIC STRUCTURATION^[*]

Naděžda Kudrnáčová

Abstract. This paper deals with the principled connections between the kinetic patterns lexicalized in one distinct group of verbs of corporeal motion and the verbs' internal semantic structures as they manifest themselves at a syntactic level. In the verbal internal structures two distinct components can be distinguished, namely, the process-denoting component and the goal-denoting component. The verbs fall into three sub-groups, each displaying a specific configuration of the two components in terms of their different functional positions and of the possibilities of their profiling. These verbal internal structures represent dynamic potentials that interact with the meanings borne by the syntactic constructions into which the verbs enter.

It is generally acknowledged that the semantic content of the verb has a direct bearing upon its syntactic behaviour. The present paper is a contribution to the analysis of the internal semantic structuration of a selected group of English verbs and its manifestation in syntax. More specifically, it demonstrates the presence of two distinct semantic components in the verb's internal template and their operation at a syntactic level.

The verbs under investigation form a semantically coherent class. They denote the bringing together of those body parts which conceptually belong together (i.e. those which form a pair) or whose physical boundaries can be brought together: *fold, cross, clench, close, shut, clasp, press (together)* and *compress*.

Some of these verbs are adduced in Levin (1993: 34-35, 220-222) among verbs which take body parts as their direct objects and which describe conventionalized gestures and signs. In other comprehensive surveys of English verbs, the verbs under investigation are not mentioned as (part of) a distinct group. Dixon adduces some of them in their non-corporeal sense (1991: 98-102), but does not include any of these in his subsets denoting corporeal verbs (Dixon 1991: 118-119). Neither Faber and Mairal-Usón (1999) nor Snell-Hornby (1983) mention either of the verbs in their verbal classes (Snell-Hornby 1983: 132 adduces *clasp*, but only in its non-corporeal sense, i.e. "the prolonged action of holding firmly").

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In the internal semantic structure of these body part motion verbs, two distinct components can be distinguished, namely the process-denoting component and the goal-denoting component. The former refers to the course of the movement, the latter to the final position the body part resumes. For example, in *close* (*He closed his eyes*) the presence of the process-denoting component manifests itself in the possibility of profiling this component in the progressive with a non-iterative meaning (*He was closing his eyes*), and the presence of the goal-denoting component manifests itself in the possibility of its being profiled in the stative passive with a resultative meaning (*His eyes were closed*).

The verbs under investigation fall into three sub-groups, each displaying a specific internal semantic structuration. (Examples are taken from the *British National Corpus*, on which the analysis has been based. The bracketed symbol after each example indicates the respective text sample from which the example is taken.)

1) The *fold* subtype

This group comprises the verbs *fold*, *cross* and *clasp*. They denote multi-phase movements (by a kinetic phase I understand a sequence of kinetic quanta that follow a more or less linear progression, i.e. such a sequence does not imply a sharp reversal of direction) marked by a heterogeneous kinetic progression and by a relatively complicated resulting contact of the participating body parts. This fairly complex kinetic template has a bearing on the internal semantic structuration of these verbs.

The process-denoting component is to a large extent overshadowed in favour of its goal-denoting counterpart, with one important ramification: the movement cannot be presented as being in progress because the process-denoting component cannot be given a relatively autonomous status (i.e. it cannot be extracted, so to say, from the verb's internal structure and presented as a functionally independent unit). This fact shows itself in the interpretation of the progressive: when used with these verbs, it cannot denote a movement in its progress but only its repetition. Needless to say, constructions of the type *He was folding his arms*, *He was closing his eyes*, *He was crossing his legs* have, due to the inherent non-cyclic character of the movements, a theoretical status only. (In spite of their hypothetical status they certainly have a considerable explanatory value and serve as one of the tools in singling out individual verbal groups.) A more natural way of expressing a repeated movement of this type would certainly be to use the verb together with its semantic opposite, e.g.:

- (1) His hands were clenching and unclenching. (GV2)
- (2) He was clasping and unclasping his hands in his lap. (Native speakers regard this sentence as unusual, but still imaginable.)

The fact that the markedly heterogeneous kinetic pattern underlies the verb's incompatibility with the progressive (in a non-iterative sense) is by no means surprising. It is well known that the progressive presents the action in progress, i.e. as a sequence of phases. It follows that a verb may enter into this syntactic construction if the movement it designates allows segmentation into discrete quanta (or discrete phases). It may be argued that folding

one's arms consists of a sequence of kinetic phases (and therefore one can say *He folded his arms slowly*). However, it must be borne in mind that, as pointed out above, the kinetic phases constituting this type of movement are of a markedly varied character, especially in the final phases. From this it follows that each individual quantum (and each individual phase) is not capable of representing the movement as a whole. That is, the movement must be carried out in its entirety and only then can it be labelled as "folding one's arms".

It is now clear that the impossibility of using these verbs in the progressive form cannot be taken as evidence that they belong to the class of Vendler's achievements (cf. Vendler 1967). Achievements denote actions that "occur at a single moment of time" (cf. Vendler 1967: 103) or "have little or no duration" (cf. Quirk et al. 1985: 208). The above discussion shows that the incompatibility of the discussed set of verbs in the progressive form is underlain not by the limited duration of the movements they denote (note in this connection the possibility of combining these verbs with the adverb *slowly*: *He slowly folded his arms*), but by the dependent status of the process-denoting component as present in their internal semantic structure.

It must be stressed that the impossibility of extracting the process-denoting component from the internal template and making it an autonomous, functionally independent unit does not invalidate its postulation as a distinct constituent. Let me, in further support of my claim, point out that although the verbs cannot occur with the progressive, they still cannot be used in the diagnostic questions of the form "At what time did you fold your arms (cross your legs, clasp your hands)", which would indicate their true achievement status.

The subordinated status of the process-denoting component is, needless to say, also the reason why the verbs from this group cannot be used with the non-iterative *begin* (*?He began to fold his arms*, *?He began to cross his legs*, *?He began to clasp his hands*).¹ Needless to say, these verbs are, due to the dependent status of the process-denoting component, compatible with *begin* in an iterative sense only (the movement is thus rendered as a sequence of completed units). This construction is, again, only hypothetical: certainly it is difficult to see the reason why this kind of movement should be carried out repeatedly (*He began to fold and unfold his arms in his lap*, *He began to cross and uncross his legs*, *He began to clasp and unclasp his hands*). This means that the reason for the theoretical status of this construction must be sought first and foremost in the pragmatic functional load with which the movements can be endowed, and not in the semantic structure of the respective verbs.

2) The *close* subtype

This group comprises the verbs *close* and *shut*. *Close* may be used with the progressive and with the inchoative *begin* in a non-iterative sense because its internal structure is marked

¹ The sentence *He began to fold his arms* may, theoretically, be used in a non-iterative sense, but in this case the sentence does not present a detached, purely objective depiction of physical reality. It may serve as a (possibly emotively coloured) depiction of the inner state of the performer of the movement (as is well known, folding one's arms belongs to movements which may serve as a signal of one's inner state). But even here the onlooker must know (or, at least, safely predict) the entire kinetic pattern of the movement although it has not been completed yet.

by a more or less balanced status of both the process-denoting and the goal-denoting components. That is, not only the goal-denoting but also the process-denoting component can operate as functionally independent constituents. The reason for this situation lies in the homogeneous kinetic structuration of the movement denoted by this verb. Let me offer an explanation. Each kinetic quantum, whose sequence constitutes the movement as a whole (I take quantum in its most minimum sense, namely as the distance between discrete contiguous points on the path), encompasses in itself the nature of the whole movement and thus represents a (more or less) functionally independent unit within the whole pattern. The movement has, therefore, a cumulative character, with each quantum representing a further stage in the attainment of the goal (the resultant position of the body parts). The cumulativity of the kinetic structuration does not run counter to its homogeneousness because cumulativity is a quantitative phenomenon, whereas homogeneousness is a qualitative one. Consider:

- (3) [...] but tonight she was tired, her eyes were closing, she had had four hours of party already [...] (FBO)
- (4) Her father held her tightly until her eyes began to close and from far away she heard [...] (CEH)

The corporeal *shut* with the non-iterative progressive represents a merely hypothetical construction. I have found only two examples in the BNC, but even in them the progressive has an iterative meaning. Cf.:

- (5) He was opening and shutting his mouth and licking his lips, much as a cat does when something disgusts it. (EWC)
- (6) [...] I tried to get him down to sleep again, and he was shutting his eyes and sucking on his dummy, but he was [...] (KCG)

The explanation must probably be sought in the semantics of *shut*. In contrast to *close*, it suggests “the interposition of a barrier or obstacle” (*Webster’s New Dictionary of Synonyms* 1978: 153), which emphasizes the reaching of the final position. This implication is, naturally, quite plausible for shutting entities other than body parts, cf.:

- (7) I was shutting the front door when I heard the phone ring. (HTR)

3) The *press* subtype

This group comprises the verbs *press*, *compress* and *clench*. Their internal structure is, due to a very specific physical structuration of the movement, characterized by a dominant position of the goal-denoting component. The last phase does not involve a merely static contact between the participating body parts (as is the case in the two groups of verbs discussed above). Owing to the pressure that is exerted, the body parts, although being in con-

tact already, continue to engage more closely – note the use of the expressions of the *hard* type in the following two examples:²

- (8) Harry clenched his teeth so hard that the stem of his clay pipe broke [...] (EWH)
- (9) [...] but she had to press her lips tightly together to stop them quivering. (H7W)

The restructuring within the physical composition of the body parts in question is linguistically reevaluated as a movement *sui generis*. The dynamicity as present in the last phase (which involves the resuming of the final position of the body parts) underlies the merging of the goal-denoting component with its process-denoting counterpart in constructions with the progressive and with the inchoative *begin*. This is the reason why the use of the progressive with these verbs reevaluates the course of the movement as covering the prolonged physical contact of the participating body parts. Consider:

- (10) The old man seems to be clenching his teeth. (HGU)
- (11) He was pressing his fingertips together.

The same interpretation is valid for the combination of these verbs with the inchoative *begin* (needless to say, such a construction is very unusual but imaginable). *Begin*, then, marks the onset of the process shaped as the prolonged dynamic contact between the participating body parts.

- (12) [...] he just continued to hold on to her, and after a time even began to press his tongue against hers. (K8T)

It must be pointed out that when *clench* combines with *one's fist(s)*, the construction yields a different interpretation: it marks the onset of the first kinetic quanta, cf.:

- (13) [...] then breathe in through your nose and at the same time, start to clench your fists and bend your elbows so that they are near your shoulders, elbows down. Repeat this exercise three times. (B21)

This interpretation is underlain by the fact that the internal semantic template of this predicate is characterized by a more or less balanced weight between the two internal components. This is only natural since the kinetic pattern in clenching one's fist(s) is, in comparison with a kinetically homogeneous pattern as present in clenching one's teeth, relatively heterogeneous. Put another way, the lexical content of *clench one's fist(s)* provides information not only about the presence of the final quanta during which the body parts are in contact, but also about those that precede them.³

² The increasing pressure is also implied in this example: She clenched her jaws until they ached. (*New Shorter Oxford English Dictionary* 1993: 416).

³ Note the use of *loosely* implying the absence of marked pressure: [...] forming a shell like a loosely clenched fist. (EFR)

It thus does not come as a surprise to learn that the progressive with, e.g., *clench one's hands* may, under certain circumstances (when *clench* is accompanied by its semantic opposite) denote a repeated movement:

- (14) His hands were clenching and unclenching. (GV2)

***Ing*-participle clauses**

The verbs from all the three groups may be employed in an *ing*-participle clause, which presents the movement as taking place against the background of other actions. Owing to the operation of this construction, the verbal internal semantic template is restructured: the process-denoting component is foregrounded, while the goal-denoting component recedes into the background. It must be stressed, however, that the restructuring involves a mere shift in the relative weight of the two components. The process-denoting component, albeit foregrounded, is not given a functionally independent, autonomous status (as in the progressive with a non-iterative meaning), which means that the goal-denoting component is still in operation. This enables the verbs with a firmly built-in process-denoting component (*fold*, *cross*, *clasp*) to freely enter into this type of construction, and this also explains why this construction denotes the movement as occurring in its entirety even when denoted by verbs with a potentially extractable process-denoting component (as in, for example, *He was closing his eyes* in a non-iterative sense). Consider:

- (15) Jess resisted, primly folding her hands, looking down and waiting [...] (C85)
(16) He seemed to find the spirit relaxing, and sat down himself, crossing his legs almost casually. (CE5)
(17) He sat forward on his chair, clasping his hands. (G1W)
(18) He kissed her, closing his eyes so that she could not see herself any more. (FRC)
(19) She turned away, shutting her eyes to adjust them to the darkness, and then [...] (BMX)
(20) He bit his lip, clenching his fists. (A73)
(21) Belinda stood back, smiling and pressing her hands together with pleasure. (H9H)
(22) Compressing her lips, she fleetingly observed their full curve with a stab of dissatisfaction. (GUE)

Resultative constructions

All the verbs under investigation may occur in the pseudo-passive construction, which has a stative, resultative meaning. Needless to say, in this type of construction the goal-denoting component, acquiring a functionally independent status, becomes foregrounded.

The ease with which the verbs enter into the resultative construction lies in the kinetic pattern of the movements denoted by the verbs: the body parts resume, irrespective of the

character of the course they traverse, a definite position, which represents the goal of the movement. That is, the body parts involved in movements under investigation belong to the class of “accusative body-part objects” (the term used by Wierzbicka 1980: 24 for the body parts which occupy the object position and occur with verbs which imply a final change in the position of the body parts). Consider:

- (23) [...] the gloves and hat were placed side by side on the gleaming wood of the table before her and her hands were folded in an attitude of prayer [...] (EVG)
- (24) Her legs were crossed at the knee, and she was wearing her new wedge-heeled shoes. (ACW)
- (25) His hands were clasped together as if to comfort one another. (H7A)
- (26) She blinked twice, taking the risk of missing the right few seconds while her eyes were shut. (H0R)
- (27) My eyes are closed, my throat is clogged growing over. (FU5)
- (28) Lachlan’s jaw was clenched tight as his hand. (APW)
- (29) Her shoulders were hunched up high and her lips were pressed together tight and she sat there [...] (CH4)
- (30) His lips were compressed into a thin line as he awaited some explanation. (CEC)

* * *

The analysis has endeavoured to show certain aspects of the interaction between the kinetic pattern as lexicalized in the verbs under investigation and their internal semantic structure as it is manifested at a syntactic level. It can be seen, too, that internal semantic templates of verbs are not a static phenomenon. On the contrary, they represent a dynamic potential whose components become activated in a specific type of syntactic construction. This fact provides further evidence that syntactic constructions are endowed with characteristic functional potentials, capable of activating certain components of the verb’s internal semantic template. (Let me in this connection recall Daneš’s “back effect” of form upon meaning (cf. Daneš 1968) and Goldberg’s (1995) construction grammar.)

By way of concluding my paper let me tentatively observe that my analysis of the connections between the verb’s internal semantic template and the kinetic structuration as implied in its lexico-semantic content offers an alternative (quite compatible, though) view of the verbal internal temporal structuration as first proposed by Vendler (1967).

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THE LOCATIVE INVERSION CONSTRUCTION AND THE CHARACTER OF THE PATH^[*]

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Abstract. According to the Unaccusative Hypothesis, intransitive verbs (including verbs of locomotion) fall into two categories, unergative verbs and unaccusative verbs, each associated with a different set of syntactic and semantic properties. The paper explains why prepositional phrases (PPs) taking the preposition *to* cannot occur in the locative inversion construction (reserved for unaccusative verbs), in spite of the fact that goal phrases are added as indicators of the verb's unaccusative status. In the directed motion domain, the locative inversion construction can be used to encode motion involving a strictly bipolar path in which the transitional phase is missing.

Unaccusativity of telic motion predicates

According to the Unaccusative Hypothesis, first proposed by Perlmutter (1978) and elaborated on by a number of writers, intransitive verbs, including verbs of locomotion, fall into two categories, unergative verbs and unaccusative verbs, each associated with a different set of syntactic and semantic properties. The present paper will deal with verbs denoting directed, telic movement, which are – as opposed to those denoting non-directed, atelic movement – generally regarded as unaccusative. For example, Dowty (1991) and Tenny (1994) suggest that there is a close link between telicity and unaccusativity. The same position is adopted by Levin and Rappaport Hovav (1995), who claim that verbs expressing directed movement are unaccusative and display a characteristic syntactic behaviour. They state that “verbs of motion are found in locative inversion constructions when they take directional phrase complements” (1995: 221) and that this fact is consistent with their unaccusative status. Rosen (1984) also takes a basically syntactic position claiming that unaccusative verbs can be identified on the basis of their syntactic behaviour.

The paper will focus on directed movement *to* a place and *into* a place, i.e. on verbs complemented by directional phrases employing the prepositions *to* and *into*. The analysis is based on the British National Corpus (the bracketed symbol after each example indicates the respective text sample from which the example is taken).

Although Levin and Rappaport Hovav (1995) claim that one of the signals of the verb's unaccusative status is its possibility of entering into the locative inversion construction,

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motion predicates with *to-* and *into-*directional phrases do not, in spite of their unaccusative status, behave uniformly in this respect. We shall try and show that the reason for the difference in the syntactic behaviour of the two types of motion events in question lies in a different construal of the path (and, consequently, in a different construal of the motion) as encoded in the directional phrases under consideration.

Bipolarity of the path and ‘appearance’ as a contrastive semantic concept

Let us first concentrate on constructions with directional phrases employing the prepositions *into* and *out of*. Consider:

- (1) Into the shop came a young and very hot couple, leaving their bicycles outside. (H9Y)
- (2) Deep into the safety of the forest they ran, intent only on putting as much distance as possible between themselves and the death-dealing humans. (HJD)
- (3) Then, suddenly, out of the sky like a vast whirring hornet came a black helicopter. (CA0)
- (4) [...] when seemingly out of nowhere stepped a policeman, and they all came to a halt. (AT7)
- (5) Out of the wigwam crawled the boy who’d shot the arrow. (ABX)

It is evident that, in this type of motion event, semantic weight as placed on the two constitutive components of a motion situation (on the motion itself and the localization of the moving entity) is distributed unevenly in that the semantic focus lies on the localization that is profiled in the given situation (it may be the final or the starting position of the entity).

The factor that plays an important role in the foregrounding of the entity’s final (or, by the same token, its starting) position is the internal structure of the path. The path encoded by means of the preposition *into* (or its spatial opposite *out of*) has a simple bipolar structure, i.e. it lacks an intermediary phase. The bipolarity of the path as encoded in the *into-*directional phrase was proposed by Kaufmann (1989). A similar standpoint is taken by Beavers (2002), who sees motion along such a path as a transition from outside a location to inside a location. These conceptions of the *into-*path represent a revision of the view proposed by Jackendoff (1983, 1990), namely that the *into-*directional phrase encodes motion as encompassing motion *to* a certain spatial point *in* the given location (on this assumption, *John walked into the room* can be paraphrased as ‘John walked to a certain place inside the room’).

The strict bipolarity of the path has an important ramification: it enables us to lay semantic emphasis on one spatial point simply by placing it in a direct, sharp contrast to the other spatial point (as noted above, the point profiled in this way may not only be the one representing the goal of a motion, but also the one representing the starting point of a motion).

At this point, let me mention briefly that whenever a directed movement (a movement into a place or out of a place) is encoded by means of path verbs (*come, go, return, etc.*),

which lexicalize the mere fact of translocation, and not by means of manner verbs (*walk, run, crawl, march*, etc.), which lexicalize a concrete manner of motion (see, e.g. Levin 1993), the localization of the entity receives even greater semantic prominence. The reason is quite obvious: in such a case, attention is not allocated between description of manner of motion and description of directionality of motion. Or, to put this another way, the relative sparsity of semantic information in the depiction of the motion situation in question enables us to profile the localization with greater force. Consider:

- (6) Indeed, at one point, I believe I came into the smoking room and heard one of the gentlemen saying: “The fate of Europe [...]” (AR3)
- (7) [...] and watered her plants. She picked off the dead leaves one by one. She went into the kitchen, scrambled three eggs and returned to the living room to eat them. (A0R)

As stated above, the path encoded in the *into (out of)* directional phrase represents a spatial axis with a strictly bipolar structure: its two (and only two) constitutive parts are construed as extreme positions that are placed in a sharp (i.e. without an intermediary phase) spatial contrast. This strictly bipolar construal of the path whose outcome is the profiling of the entity’s localization, enables us to establish a semantic link between the entity’s localization in a place and the entity’s coming into a place, i.e. between ‘being somewhere’ and ‘appearing somewhere’. The latter case represents a dynamic and contrastive variant of the former. Put in simple words, ‘appearing in a place’ means that ‘being somewhere’ is presented as an immediate result of not being somewhere else. Appearance is thus a markedly contrastive semantic concept because its semantic value is constituted as a bipolar change (we may say ‘as a negation’) of its opposite. In this connection we can recall a well-known fact that locative inversion construction is open also for static localizations, i.e. those that do not represent results of a preceding motion, cf.:

- (8) To the side of the village square, is a small but fascinating folk museum [...] (AMD)

Suppressed directionality of the path and movement as a type of dynamic existence

From here it is only a step to locative inversion constructions in which the movement is presented not as a directed sequence of spatial points, but as a type of dynamic existence of the entity – by this I mean a kinetic type of existence, i.e. such as takes the form of a continuous change of the entity’s spatial configuration. Consider:

- (9) The beautiful underfoot carpets of blue gentium delight the eye and, above fly buzzards, eagles, skylarks and wheatears. (A65)
- (10) [...] and Little Billy could see a vast lake of water, gloriously blue, and on the surface of the lake thousands of swans were swimming slowly about. (CH9)

- (11) A hundred yards away, at the bottom of the slope, ran the brook, no more than three feet wide [...] (EWC)
- (12) A sailing ship was passing, its mylar sails flapping in the gusty wind. Behind it crawled a hoverbus of MivvyCorp employees having a party. (CJA)
- (13) [...] and across the coloured surfaces people moved as though they were stitching and knitting at its texture [...] (A0N)

In this type of presentation of a motion event, the conception of the path as a directed axis is considerably weakened (needless to say, the path must still be present). Levin and Rappaport Hovav (1995) hold that in such constructions the verb is semantically light. At the same time, it cannot be overlooked that a considerably low semantic weight as placed on the verb must be ascribed to the fact that movement is construed as a specific type of the entity's dynamic existence, not as an activity whose primary aim is the change of the entity's location. In line with this, the path is presented as playing a secondary role because it is construed as a (necessary) product of the activity (the movement) itself. In other words, the directionality of the path is backgrounded, which means that the path is not construed as a *directed* sequence of spatial points. Seen in a slightly different perspective, the translational component of the movement is backgrounded in favour of the manner component of the movement, i.e. in favour of its concrete physical properties. This fact has an important ramification: due to the suppressed directionality of motion, the function of the path is re-evaluated in that it serves as a setting of the entity's dynamic existence (movement).

We thus have the following set of contrasts: 'the entity's dynamic existence in a place' (taking the form of the entity's movement) versus 'the entity's appearance in a place'. As we have seen, owing to the foregrounded semantic position of the localization of the entity (of its 'being' in a place), the entity's appearance somewhere represents a dynamic version of the entity's being in a place – or, vice versa, the entity's being in a place (albeit construed dynamically, as a motion in a place) represents the static variant of the motion into a place. These facts explain, I hope convincingly, why in locative inversion constructions, the initial sentence position is open both for paths construed as settings (localizations of movements) and for paths construed as bipolar changes of locations.

Heterogeneity of the path versus its homogeneity

Coming back to the character of the *into*-path (construed as involving two locations: outside a place and inside a place), let me, in addition, stress one more point. If the path is to be construed as consisting of two parts only, it must be heterogeneous in the sense that each of the spatial segments must belong to a different spatial environment. That is, the entity moving must cross a boundary separating the two environments and only in this way is it possible to present a change of location as a sharp contrast between 'not be in a place' and 'be in a place'. This construal of the path is, certainly, a matter of the linguistic structuration of reality. More specifically, it is a matter of event structuration at an abstract level (as is well known, this type of structuration determines the aspectual classification of the motion event in question). The *into* (*out of*) motion events are achievements and as such

are combinable with punctual temporal specifications. Consider the following two examples:

- (14) [...] for just at that moment into the sales walked Mike Smith from the yarn store proudly sporting as ever his well known beard. (HS2)
- (15) McLeish was feeling justifiably pleased with himself as he walked into his office at eight o'clock on Monday morning. (AB9)

Certainly, from a purely physical point of view, motion into a place has duration and is composed of a series of spatial points – with one section of the path outside the given place and the other section of the path inside the place. Therefore motion events that are construed as achievements at an event level can combine with pace adverbs and, also, with such spatial characterizations as point to the extended length of the path. Cf.:

- (16) Slowly Violet walked into the room. (CA0)
- (17) Lucille, her face paled by fear, held d'Alembord's arm as he walked a few paces into the room and bowed primly to Christopher Manvell. (CMP)
- (18) They walked a little way into the Trees, where it would be more comfortable to sit on the thick, dry forest floor and eat their food and rest. (G1L)

Let us now have a look at motion events encoded by means of the *to*-directional phrase. As noted above, the *to*-phrase and the *into*-phrase cannot be put on a par, in spite of the fact that both directional phrases present the final point on the spatial axis as a goal of motion (*to* and *into* belong to the class of goal prepositions, cf. Jackendoff 1983). The path encoded by means of the *to*-directional phrase is construed as a sequence of more than just two spatial points (spatial segments), i.e. it has an intermediary phase. (On the presence of an intermediary phase in the *to*-path see also Beavers 2002). It must be realized, however, that the path can be construed in such a way only with a proviso that it retain its homogeneity. By this it is meant that all its constituent parts (all the spatial points on the axis) belong to one and the same spatial environment. In *He ran to the store*, for example, the resultant localization of the entity can be reworded in the form 'be *at* the store', not in the form 'be *in* the store' (meaning 'be *inside* the store'). That is, the motion whose path is encoded in the *to*-phrase is construed not as *penetration* into a place (not as crossing its boundaries) but as *reaching* a place.

By way of digression, let me mention that the requirement of the homogeneity of the path in directed movement encoded by means of the preposition *to* explains why it is not possible to express movement *to* a place and then *into* a place as parts of one and the same movement, as parts of one and the same path. In such a case, English has to present such a complex motion situation in the form of two separate motion events, each with its own path. Consider the following sentence:

- (19) She reached the house, ran into the front room and shoved the suitcase behind a big, glass case that had a capercailzie in it. (HH9)

First there is the event of reaching the house and then there is the subsequent event of running into the house, presented as a separate motion event.

In the following two sentences, the order of the events is reversed: the event of penetration into a place is followed by the event of reaching a place:

- (20) Rachaela walked into the corridor and along to the landing, and descending the stairs [...] (GUM)
- (21) [...] she walked into the dark cottage and up to bed. (H9V)

Non-binarity of the path and its manifestation at a syntactical level

The non-binary internal structure of the path as encoded in the *to*-phrase has an interesting ramification: the last point on the path (representing the goal of motion), forming part of an ‘extended’ sequence of spatial points, is not placed in such a sharp contrast to the starting point of motion. The presence of a transitional phase thus considerably weakens the semantic burden as placed on the localization of the entity. From a more abstract perspective, the last point on the path does not represent the other extreme (“negative”, as it were) point in the set of contrasts taking the form ‘not be somewhere’ versus ‘be somewhere’. Therefore, motion *to* a place (as opposed to motion *into* a place) does not function as ‘appearance in a place’ as is the case in motion *into* a place. This seems to be the reason why motion verbs complemented by *to*-directional phrases do not enter into locative inversion constructions (**To the room walked a boy*). This is not to say, however, that such constructions are totally excluded. They are very rare and represent highly stylized (stylistically marked) presentations of reality, cf. Examples 22 and 23 (in Example 23 the *to*-directional phrase denotes a fictive, metaphorical path):

- (22) To the garage the beast and I unsafely struggled, a place straight out of Zen and the Art of Motorcycle Maintenance: Bad Karma Department. (K5C)
- (23) There is a sense of timelessness here – bathed in the dark but fragile blue of sorrow, from the cradle, to the convent school, to the galaxies Enya walks a starry path where few can follow. (ED7)

Conclusion

In conclusion, let me state the following: motion events encoded by means of directional phrases taking the prepositions *to* and *into* cannot be put on a par. Both types of directional phrases offer largely different construals of the path and, hence, different construals of motion events. The differences pertain to a conceptual level and, therefore, manifest themselves at a syntactical level. As opposed to a motion event whose path is encoded by means of the *into*-directional phrase, a motion event encoded in the *to*-phrase cannot be taken as a contrastive variant of a motion event that is construed as the entity’s dynamic existence and, consequently, cannot be used in the locative inversion construction.

We have thus seen that predicates denoting telic, directed movement (and as such regarded as belonging to the class of unaccusative verbs, marked by a distinct syntactic behaviour) do not form a semantically (and, hence, also syntactically) coherent class. It is evident, in my view, that an inquiry into the unaccusativity/unergativity dichotomy should pay equal attention not only to the syntactic properties of verbs but also to the semantic properties that underlie them.

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EVA TICHY: *A SURVEY OF PROTO-INDO-EUROPEAN*. BREMEN,
HEMPEN VERLAG, 2006, 144 PP.^[*]

reviewed by Lenka Dočkalová

In the pre-history of individual Indo-European languages we can differentiate between four to five evolutionary phases the oldest of which is the Proto-Indo-European one. “An unrecorded reconstructed common ancestor of Indo-European languages”, so is usually characterized the Proto-Indo-European language (PIE) whose existence was for a long time a matter of dispute among scientists, though nowadays it is taken for granted as an important part of historical-comparative research. The problem of the Proto-Indo-European language has become interesting and appealing for a great many linguists who have been, for over more than one century, trying to take a stand on it in their monographs and innumerable articles. Even at the beginning of the 21st century it is still in the center of linguists’ interest, and new works are being published. One of them is a book by Eva Tichy *A Survey of Proto-Indo-European* (Bremen, 2006).

The book under question is a translation (by its author in cooperation with James E. Cathey, University of Massachusetts Amherst) of the original German version called *Indogemanistisches Grundwissen für Studierende sprachwissenschaftlicher Disziplinen* (Freiburg, 1999), accompanying Eva Tichy’s lectures at the University of Freiburg.

The text is clearly organized into 17 chapters mapping the most important topics of respective linguistic disciplines. The chapters generally correspond with the traditional sequence used in European grammars: general introduction, phonology, morphology and syntax. Moreover, the book is supplemented with two appendices, one presenting the International Phonetic Alphabet (IPA) and the other the Greek alphabet. This is indeed a commendable fact, as the reader can refer to it without needing additional textbooks. The book also contains an index. The list of chapters follows:

1. The Indo-European Family of Languages
2. Theoretical Bases I: Sound Laws
3. The Proto-Indo-European Sound Systems
4. Theoretical Bases II: Laryngeals, Morpheme Structure, and Ablaut
5. Parts of Speech, Sentence Structure and Intonation, Word Accent
6. Theoretical Bases III: Morphological Analysis
7. Thematic and Athematic Inflection
8. Nominal Composition
9. Nominal Inflection: Case, Number, Gender
10. Theoretical Bases IV: Accent-Ablaut Classes

[*] Previously unpublished. [Editor’s note]

11. Verbal Inflection: Person, Number, and Diathesis or Voice
12. Verbal Inflection: Perfect and Stative
13. Verbal Inflection: Moods
14. Verbal Inflection: Root Presents and Thematic Presents
15. Further Present Formations
16. Theoretical Bases V: Verbal Duration (Aktionsart), Tense, and Aspect
17. Verbal Inflection: s-Aorist and Root Aorist

The scope of the book can be guessed from the titles of the chapters. The first one introduces readers to classification of the Indo-European languages and language families derived from the PIE, providing basic information about concrete languages, such as when they were spoken with or where their speakers lived. Moreover, it makes an overview of extant texts and the most important linguistic features.

That there is a genetic relationship between Indo-European languages can be convincingly demonstrated on sound correspondences; these together with so-called sound laws are the central theme of the next chapter. Another topic of phonological descriptions is the PIE inventory of phonemes, laryngeal theory and subsequently reconstruction of the PIE morphematic structure in connection with the question of the PIE ablaut, as virtually all PIE roots can be understood as realizations of some simple radical structure if the laryngeal theory is taken into account. The PIE intonation and word stress are approached from the perspective of their unity with particular parts of utterances and sentence structure.

Morphological analyses presented in the book study particular morphemes of PIE words, i.e.: (reduplication +) root (+ primary suffix) (+ secondary suffix) + ending. The chapter on thematic and athematic nominal and verbal roots anticipates further exposition of the morphology of nouns and verbs. Nominal inflection includes at the same time commentaries on the meaning and use of individual morphological categories as well as different ways of formation of composites. The PIE verb is described in the same manner, i.e. from the perspective of morphological categories: person, number, voice, mood, tense and aspect. Out of the verbal tenses Tichy focuses in detail on present, perfect and aorist.

The exposition of the linguistic situation in the PIE phase is supported by numerous illustrative examples from the Indo-European languages mentioned, while Sanskrit, Latin and Greek are covered most. All information is laid out clearly and comprehensibly. Explained are also basic terms of respective disciplines (e.g. sound laws, ablaut, root reduplication etc.). The author either describes a particular phenomenon and then gives the term by which it is usually known in linguistics or the term is mentioned first and then explained. This mirrors the educational character of the book. The literature used is listed right in the text, next to concrete problems dealt with at that point. New hypotheses and references to other and more comprehensive researches are mentioned throughout the description of the PIE linguistic situation. Every chapter is in addition supplemented by a set of questions intended for the reader to review his understanding of the given topic.

In conclusion, it can be said that in showing PIE from the perspective of particular linguistic sub-disciplines the publication *A Survey of Proto-Indo-European* offers a general overview of the essentials of Indo-European comparative linguistics. It is not merely a description of the linguistic situation at a given point in time but it reconstructs the PIE situation as such. That is to say, an attempt is made to explain the genesis of the grammatical system of the period before the first major differentiation, i.e. around the year 3000 BC,

together with the origin of grammatical categories and primary functions of morphemes expressing them. Tichy focuses her attention particularly on the central plane of language system, the morphological level, though not without considering the origin of Indo-European ablaut, primary function of stress and so on. Though intended for students, the book will no doubt be found interesting by everyone wanting to learn more about methods and terminology of this multifarious area of scientific research. The description is not concerned with individual languages but is directed on the original language system stemming from historical linguistic comparison, based on language history if known, and from comparative reconstruction.