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

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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 homogeneousness 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 heterogeneousness 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

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[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

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[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 maneuvre 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.:

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[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.
    htttp://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 heterogenous 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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