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**Matjaž  
Zgonc**

**Some Cognitive Properties of  
English Continuation-Marking  
Aspectual Particles**

## PROFESSIONAL PAPER

MATJAŽ ZGONC

University of Ljubljana, Faculty of Arts

# Some Cognitive Properties of English Continuation-Marking Aspectual Particles

Continuation-marking aspectual particles are a means of construing an event described with an atelic verb as having a prolonged event-internal time. Speakers of English use them frequently to construe such events. The main thesis of this article is that they do so because various cognitive properties of continuation-marking aspectual particles allow for relatively easy cognitive processing of the particles. Two such properties are discussed: iconicity and metaphoricity. First, iconic motivation connecting the length of event structure and the length of the utterance is discussed. Then, the submetaphor of TIME IS SPACE, EVENT-INTERNAL TIME IS SPACE is used to link the arrangement patterns of prepositions 'on', 'along', 'around', and the adverb 'away' in terms of trajectors and landmarks, with the domain of EVENT-INTERNAL TIME. Additionally, the interaction patterns between conceptual metaphor and conceptual metonymy are discussed with regard to the particles and their behaviour. The final result is four diagrams giving schematic descriptions of how the metaphoric transfer of spatial concepts onto the domain of EVENT-INTERNAL TIME works for each particle, what semantic possibilities and restrictions the original spatial configurations bring when the mapping is complete and what historical reflexes still affect the choice of particles in present-day English.

### KEYWORDS

**aspectual particles, continuation-marking, iconicity, metaphor, metonymy, interaction patterns**

## 1. INTRODUCTION

Aspectual particles are a means of modifying event-internal time (aspect) in the English language by modifying verbs, thus adding an (additional) aspectual meaning to the construal for which the verb was used (cf. Comrie). Although they are typically considered informal, they are used by native speakers of English rather frequently (Biber et al. 410f). In this paper, the main research question is why people, when they are free to do so, would choose to modify event-internal time with aspectual particles and not another means of doing so. The analysis will be limited to the continuation-marking aspectual particles 'on', 'away', 'along' and 'around' (Walkowá)<sup>1</sup>.

In his book *Women, Fire and Dangerous Things*, George Lakoff explicitly stated that the optimal grammar "maximizes motivation" (539) and that "it is easier to learn, remember, and use [structures] which use existing patterns than it is to learn, remember, and use words whose meaning is not consistent with existing patterns [...]" (438). As we will show below, native speakers of English do in fact use aspectual particles frequently. Assuming that their mental grammar is optimal, that is, that they can process and express with their language just as well as any other speaker can with their language, we can presume for now that there must be a good degree of motivation in how aspectual particles are cognitively processed. A good indication that this assumption is in fact sound would be a diagram showing how there is a common pattern in cognitive processing of aspectual particles and other parts of speech which are also frequently used.

Thus, answering the research question involves researching cognitive processes, and those considered here are iconicity, metonymy and metaphor. Because of the iconic principle, it should be easy to express an event structure relatively longer than another event structure with aspectual particles. Metonymy and metaphor should interact to delineate exactly which part of the domain of SPACE is mapped onto the domain of EVENT-INTERNAL TIME with regard to aspectual particles.

The paper is organized as follows. In section 2, the literature concerning the key concepts is briefly reviewed and the relevant concepts are defined. In section 3, the indications of those cognitive processes in actual language performance are presented, for which data from the EnTenTen corpus were analysed. "Negative" indication, in the sense that a proposed reading of a sentence is impossible if it is assumed that a certain cognitive process is active in its construal, is given when it is easier to illustrate a point in this manner than to provide examples whose

proposed reading corroborate the point. In section 4, there is a discussion of the results as well as of relevant diachronic data. The final section summarizes the findings and concludes the article.

## 2. KEY CONCEPTS AND LITERATURE REVIEW

Bernard Comrie's 1976 seminal work on aspect is a comparative study in the grammatical categories of aspect in various Indo-European languages in which the author is mainly concerned with verbal morphology, such as comparing the English progressive with the Spanish or Russian imperfect. Comrie's work does not mention aspectual particles at all, although the concept of "event structure" must be attributed to him. Event structure or "internal temporal properties of the event" (Comrie) concern the construal of an event as having a beginning, a middle section, and an endpoint. The term "aspect" concerns encoding and decoding an event with an emphasis on one of those sections, or the whole event structure at the same time. Thus, *She sleeps* focusses on the entirety of the event, *She starts to sleep* on the beginning, and *She is sleeping* on the middle section.

Huddleston and Pullum's 2002 grammar of English discusses aspect in terms of verbal morphology and as well as of verbs whose semantic meaning is inherently aspectual (e.g. Huddleston and Pullum 117). Semantic properties related to event structure are typically referred to as "aktionsart", but the distinction between aspect and aktionsart will not be discussed here as it would steer the discussion off topic considerably. On the other hand, when discussing articles, they note that in terms of semantics, "[t]he most central particles are prepositions" (Huddleston and Pullum 280), which is relevant for the discussion of their cognitive properties since it is, in light of that, possible to draw parallels between the conceptual structure of prepositions (about which we know a lot) and that of particles. Huddleston and Pullum never discuss expressing aspect through aspectual particles in their grammar, or indeed particles in terms of aspect. Conversely, the grammar written by Biber et al., whose title notably includes spoken English, does discuss aspectual particles (cf. Biber et al. 410f) as "aspectual intransitive phrasal verbs". In their discussion (Biber et al. 410f), it is reported that such verb-particle combinations are far more typical of spoken discourse and fiction than more formal types of written discourse. There are tangible statistics given for the combination go on in this particular (i.e. continuation-marking aspectual) meaning--over 200 hits per one million words for spoken discourse and over 100 hits per one million words for fiction--but unfortunately, the statistics are only given for this combination.

The term "continuation-marking" comes from Milada Walkowá (Walkowá). Her paper is primarily concerned with the syntactic properties of particles but she also makes an important contribution to a cognitive-semantic analysis of said particles: "The other type [as opposed to telicity-marking particles] is continuation-marking particles, whose meaning indicates continuation and/or absence of goal and their particle verbs cannot license a direct object. I include in this group [...] *on*, *along* and *away* [and also] *about* and *around*, as they are similar to the other continuation-marking particles in meaning and object licensing" (Walkowá 151f; see also Brinton 175). In other words, she claims that particles have *meanings of their own* as opposed to just being a means to modify the meaning of a lexical verb; this meaning is described to be 'continuation and/or absence of goal', which is the cognitive input they contribute to the construal of an event, and the category of particles with this meaning includes 'on', 'away', 'along', and 'around'. Note that among those, all can be considered prepositions as Huddleston and Pullum have claimed, apart from 'away' which is an adverb (but cf. section 3).

"Iconicity" is a Peircean property of signs typical of those signs which resemble what they are signs for (Kövecses, 300). When he was comparing sentences such as *Sue launched the plan*' and *Sue caused the plane to fly*, Kövecses noticed that there is a degree of congruency between the conceptual structure and the linguistic structure of the sentences construing the event. The principle of relative congruency between the conceptual and linguistic structures has been attested to by various other linguistic phenomena (cf. Kövecses 300-302), but for the purposes of this article, it is the length of the utterance that is relevant when the event it construes is also internally long.

The classical theory of conceptual metaphor (Lakoff and Johnson, Lakoff, Johnson, Lakoff and Turner, see also Kövecses 115-133) posits the existence of two domains, the source domain and the target domain, the latter of which is construed in terms of the former through mapping because of structural similarity motivating such mapping. Section 3 discusses the similarity between SPACE and EVENT-INTERNAL TIME schematically, and motivation will be discussed in light of, among other things, the cognitive properties of the prepositions 'on', 'along', 'around', and the adverb 'away', as described in Lindstromberg.

In the past twenty years, there has been a lot of progress in the field of conceptual metaphor into various directions. One of those directions is the interaction patterns between metaphor and metonymy, i.e. situations where metaphoric mapping is accompanied by metonymic expansions or reductions of either the source domain or the target domain. Barcelona

first mentioned that each and every metaphorical mapping might be preceded by a metonymic reduction of the source domain. A more refined research on the matter was carried out by Ruiz de Mendoza and Galega-Masegosa who claim that metaphor and metonymy can conceptually interact in various patterns, some of which have linguistic consequences too. The combinations relevant here are target-in-source metonymy and source-in-target metonymy, for which a linguistic test was devised: the zeugma test (Geeraerts and Persiman, qtd. in Ruiz de Mendoza and Galega-Masegosa 7). The latter produce expressions which do not allow zeugmatic link whereas the former produce expressions that do. For illustration, please refer to (A) and (B) (Geeraerts and Persiman 2011, qtd. in Ruiz de Mendoza and Galega-Masegosa 7):

(A) *\*The red shirts won the match and had to be cleaned thoroughly.* (red shirts for football players or parts of the uniform; target-in-source)

(B) *The book is thick as well as boring.* (the book for non-metonymic reference and the contents of the book; source-in-target)

### **3. CORPUS DATA AND INDICATIONS OF COGNITIVE PROCESSES**

In this section, sentences from the EnTenTen corpus containing continuation-marking aspectual particles 'on', 'away', 'along', and 'around' are reproduced as example sentences for the purposes of discussing the cognitive phenomena described in section 2. The sentences were found by performing an advanced concordance search in Sketch Engine of each particular particle as a lemma with the tag "particle" (ltag="RP"). When it comes to syntax, verbs modified by these particles cannot select direct objects, which is why the part-of-speech context was limited so that only results where no noun was immediately to the right of the particle-lemma were shown. In practice, this meant that a search for 'on' should only yield sentences where 'on' was a particle modifying an intransitive verb.

Unfortunately, because the software is only able to distinguish between individually tagged *words* and not phrases, the search did not yield only sentences having the desired form. I concluded that I would need to perform a manual search through the results to determine with certainty if a particular sentence contains the lemma I searched for functioning as an aspectual particle or as another part of speech.

#### **3.1 Iconicity**

To restate the principle of iconicity, whenever a speaker uses a

sign which also resembles that which it is a sign for, we speak of iconic motivation behind the use of the sign. In terms of continuation-marking particles, the *length* of the utterance corresponds with the *length of the event structure* expressed by the verb and the particle. Compare:

- |                                     |   |
|-------------------------------------|---|
| (1) [Y]ou should                    | <u>go</u> to your dashboard to delete this page [...] |
| (2) The paper then                  | <u>goes on</u> to analyse [...] this term [...]       |
| (3) [T]he numbers after the decimal | <u>go on and on</u> .                                 |
| (4) The circus that is Leeds United | <u>goes on and on and on</u> .                        |

When written down, there is a clear correlation between the actual length of the sentences and the length of event-internal time of the structure of the events they describe. If the sentences were spoken, on the other hand, the event-internal time would correspond with the time it takes for one to finish an utterance. In both cases, the longer it takes to produce or comprehend the sentence, the longer the event-internal time is perceived to be. The unmodified verb 'go' in (1) is lengthened by the use of the particle 'on' in (2) just as the event-internal time of (2) is longer than the one in (1). This becomes even more pronounced in (3) and (4) where several particles are coordinated. The concordance search showed that 'on' is the particle which is used by far the most frequently for this process, although it can also be observed with other continuation particles:

- (5) [I] [...] spin off into the rabbit trails that cause the minutes to tick away and away and away.
- (6) We have been working on this along and along but now that we've decided to finish [...] <sup>2</sup>
- (7) [A]fter going around and around and getting nowhere I asked to speak to her supervisor.

We will not deem iconicity a process contingent on metaphor since it concerns congruency and not systematic motivated correspondence of structurally similar domains. Metaphor and metonymy are part of the section which follows.

### 3.2 Metaphoricity with the source-in-target metonymic reduction

Lindstromberg provides an exhaustive account of the cognitive semantics of English prepositions. The author considers every spatial preposition from the point-of-view of trajectors and landmarks, which are special cases of the figure-ground arrangement. The landmark, corresponding to 'ground' in this arrangement, is the 'static' entity relative

to which the 'dynamic' trajector is set. For example, in *The book is on the table*, the table is the landmark relative to which the book, the trajector, is placed. From the semantics of the preposition 'on', we can infer that the trajector is placed on top of a two-dimensional landmark which supports it, but not so that it is wholly contained within its borders. Specifically for 'on', Lindstromberg proposes a schema of static support (51-54), which is a prototypical meaning for this preposition. Thus, every use of 'on' triggers the schema consisting of a two-dimensional landmark supporting, but not containing a trajector. This basic, visual arrangement between the trajector (henceforth TR) and landmark (henceforth LM), which is also sensitive with regard to the dimensionality of the LM and the movement of the TR, is going to be the basis for the analysis of how prepositions affect the event-internal time when they are used as particles.

Namely, if the particle 'on' is in fact just a preposition in a different syntactic function like Huddleston and Pullum have proposed, its semantic content should be unaffected by its role in a sentence. Hence, 'on' the preposition and 'on' the particle should both trigger the support schema described by Lindstromberg. However, in examples (2-4), reproduced here for the sake of convenience, all uses of 'on' provide a temporal input for the construal of the sentence, not a spatial one:

- (2) The paper then goes on to analyse [...] this term [...]
- (3) [T]he numbers after the decimal go on and on.
- (4) The circus that is Leeds United goes on and on and on.

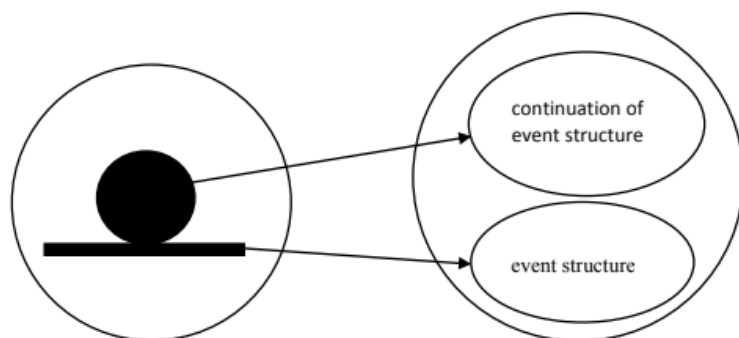
Luckily, using spatial terms for describing time has been documented very well in Lakoff (1987), Lakoff and Turner (1989), and Lakoff and Johnson (2003) in terms of the TIME IS SPACE metaphor. Whereas in section 3.1 we were observing a sign resembling what it is a sign for and set aside the question whether or not there is metaphorical mapping involved, we now face a coherent system of structural correspondences of elements from one domain, SPACE, and another, EVENT-INTERNAL TIME. It is thus justified to turn our attention to how the source domain of SPACE is used to structure the target domain of EVENT-INTERNAL TIME.

Since the schema for 'on' has already been described, this particle is considered first. The diagrams in the remainder of this section feature two circles with the one on the left representing the source domain and the one on the right representing the target domain. The 'source-domain circle' includes images of the schemata which are linked to the corresponding concepts in the 'target-domain circle' with arrows. As the source domain is space, which humans can see and otherwise perceive with our bodily receptors, whereas no such receptors exist for



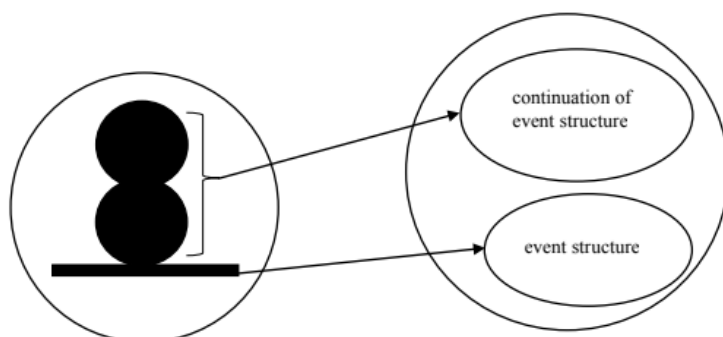
time, let alone event-internal time, it is only in the source-domain circle that schemata are used. The temporal-domain circles feature concepts spelled out with words.

ON<sub>2</sub>:



In the diagram, the LM, which is a two-dimensional supporting surface in this case, represents the event with a default event structure. The black ball on the surface is the TR as evoked by the semantics of 'on' as a preposition. But since this diagram represents the mapping from SPACE to EVENT-INTERNAL TIME, the TR is mapped onto the domain of EVENT-INTERNAL TIME as a continuation of event-internal time. In fact, if there are more trajectors, the event-internal time is prolonged even further, which fits the schema perfectly. Imagine ON<sub>2</sub> as a diagram for event-internal time in (2). Now, if there are coordinated instances of 'on' as in (3), the number of TRs increases and the event is construed as internally longer as all the TRs map onto the target domain. The diagram for (3) is plotted here as ON<sub>3</sub>:

ON<sub>3</sub>:



Of course, the continuation of event structure is longer in ON<sub>3</sub> than in ON<sub>2</sub>, but this is clear from the schema in the source-domain circle as well.

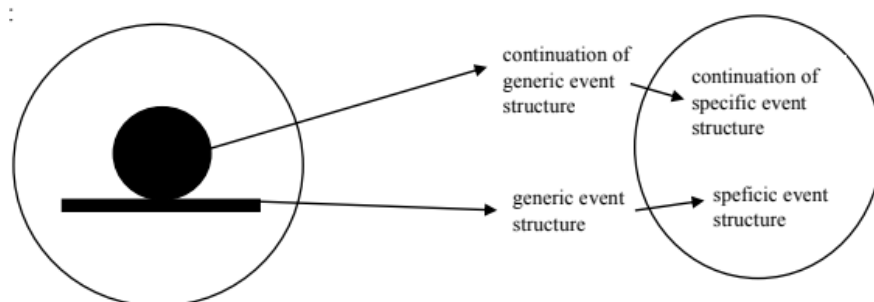
Still, there is more to be said about SPACE IS EVENT-INTERNAL TIME. While it is possible to coordinate continuation-marking particles with other particles of the same type, it is impossible to coordinate a continuation-marking and a telicity-marking particle. A sentence such as *She continued drinking and finished the glass* is perfectly acceptable but it is quite odd to hear a sentence such as *?She drank on and up*. It is unlikely that semantic contradiction is involved since the two sentences have very similar meanings. Furthermore, it is also not the case that metaphor would exclude coordination as such, as it is reasonably acceptable to read sentences like 'Your idea has solid foundations but can certainly be built upon' (THEORIES ARE BUILDINGS) or 'Both her attack and his counterattack were exceedingly mean' (ARGUMENT IS WAR). Why, then, is *?She drank on and up* so strange?

The example of 'on' and 'up' is used here because they are the most frequently used particles of their respective groups. Browsing the EnTenTen for sentences where 'on' and 'up' in the string 'on and up' would be marked as particles yielded 180 examples, so I manually searched through all. Not in one of them were the words actually aspectual particles (and not adverbs of space or manner) nor did they pertain to the same action simultaneously. The only example worth reproducing here is [...] *Pan-Scandinavianism evolved on and up, at least in the '30s and '40s [sic] of the 19th [sic] century*. Because it is impossible to evolve in a spatial direction, the example caught my attention. However, neither the sentence itself nor its context allow for a continuative interpretation followed by a telic one. It appears that the author either treated 'up' as a continuation-marking particle, or that 'up' is used here in its spatial sense, as in 'up north'. In any case, it certainly does not have a telic meaning.

Geeraerts and Persiman (qtd. in Ruiz de Mendoza and Galega-Masegosa 7) claim that the answer lies in the interaction patterns of metaphor and metonymy. They differentiate between target-in-source metonymies where the source domain is first metonymically reduced, and only the reduced part is mapped onto the target domain, and the converse process--source-in-target metonymies--where the source domain is unaffected by metonymy and it is rather that which is mapped onto the target domain that is subsequently metonymically reduced (11-14). Crucially, Geeraerts and Persiman employ the zeugma-test to determine which type of interaction is at work. In the example above, *Both her attack and his counterattack were exceedingly mean*, two parts of the source domain are connected by a zeugma. Conversely, in *\*The red shirts won the match and had to be cleaned*, a zeugma is impossible, which is why this has to be an instance of the source-in-target metonymy. We have also just determined that a zeugma is impossible with different

types of aspectual particles. It is therefore reasonable to infer that the metaphorical mapping between SPACE and EVENT-INTERNAL TIME is complicated by a metonymic reduction of the metaphoric target. This might be represented like so, for (2):

ON<sub>2,1</sub>:



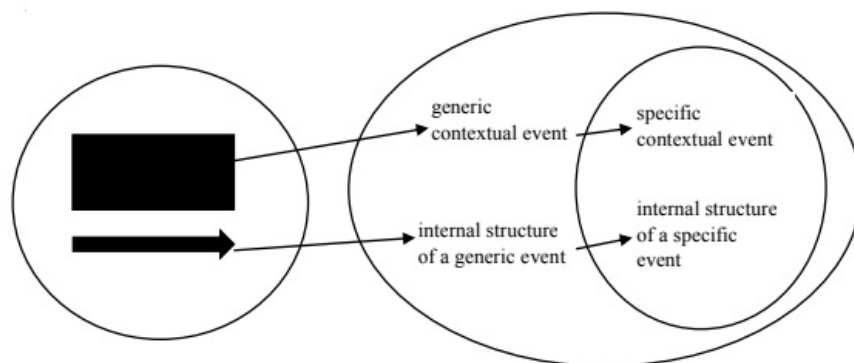
Evidence from the zeugma-test leads us to the conclusion that the schema of the preposition 'on' is not mapped directly onto the event structure. In fact, no continuation-marking particle seems to allow a zeugma with a telicity-marking one. Instead, the relationship between the TR and the LM is first mapped onto a *generic* event structure, an event structure of an unspecified event in the construal, and only afterwards can it be mapped onto the structure of a specific event in that particular construal. This would explain the lack of coordination possibilities for the particles. It is also in line with the general GENERIC FOR SPECIFIC metonymic pattern (see Kövecses 97-113). The diagrams for 'along', 'around' and 'away' will include a metonymic reduction of the target domain to keep in line with the pattern discussed here.

The preposition 'along' is a dynamic preposition and its TR is necessarily moving. Because of this, it is best represented in a diagram as a vector, i.e. a force moving in a certain direction, represented by an arrow figure (Lindstromberg 81-83). Crucially, however, whatever is 'along' is necessarily along something else. If one compares two sentences like *She sang* and *She sang along*, it is clear that the latter has had its event-internal time modified--the time of singing is not unspecified as in *She sang* but rather defined with respect to some element from the context of this utterance. Example (8) is taken from a report on river cleaning. It is given here together with its preceding sentence:

(8) Cleanup veterans [...] found a backwater slough that was chocked full of huge tires and trash, apparently deposited in a flood quite a few years ago near the Hollywood Casino. Other volunteers worked along under the 370 bridge [...]

In (8), the internal temporal structure of “worked” is established in terms of the time it took the “cleanup veterans” to find the backwater slough filled with rubbish. The internal temporal structure of “worked” thus corresponds to the TR while the preceding context corresponds to the LM.

ALONG<sub>8</sub>:



The preposition ‘around’ is the youngest of the prepositions this paper is concerned with (Lindstromberg 133) and is also the only preposition-particle discussed here that Brinton does not include in her analysis of the historical continuity of aspectual meaning. In other words, the word ‘around’ has had the least amount of time to acquire aspectual meanings regardless of the syntactic roles in which it can function. As a preposition, it can be used in a variety of ways, among which the most frequent are ‘bypass’ or ‘circumvention’ (see also Lindstromberg 133-139). None of those meanings seem to be able to motivate prolonging the event-internal time. However, there is one meaning, namely that of “aimless and purposeless” behaviour (Lindstromberg 136) which is a good fit for the purpose.

This claim is based on the following. A corpus query where ‘around’ is marked as a particle and does in fact modify event-internal time yields, among others, examples (9-11). If the semantics of ‘around’ in (9-11) really include the notion of aimlessness, using an expression meaning ‘aimlessly’ in place of the verb modified by ‘around’ should provide sentences with their propositions unchanged. The same should not be true if the notion of ‘bypass’ or ‘circumvention’ is inserted into the sentence: in those cases, the original meaning of the sentence should be altered considerably. Below, examples (9-11) were altered to include expressions of aimlessness to give (9a-11a) and to include expressions of circumvention to give (9b-11b).

(9) Visit their website [...] and poke *around*!

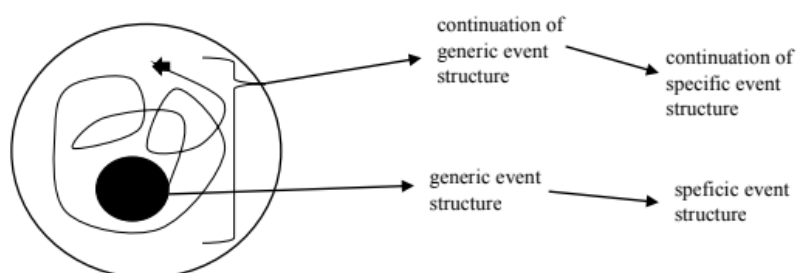
(9a) Visit their website and poke just whatever!

- (9b) Visit their website and poke across in a circular pattern!  
(10) You can download the simple spreadsheet if you want to play *around* with the model yourselves.  
(10a) You can download the simple spreadsheet if you want to play for fun with the model yourselves.  
(10b) You can download the simple spreadsheet if you want to play in a circle surrounding the model yourselves.  
(11) When I was a teenager, I used to loiter *around* the librarian's counter [...].  
(11a) When I was a teenager, I used to loiter by the librarian's counter for no particular reason.  
(11b) ??When I was a teenager, I used to loiter in a circle by the librarian's counter.

Examples (9a-11a) are close to examples (9-11) in meaning whereas examples (9b-10b) differ from their aspectual counterparts considerably. This is a good indicator that the meaning of 'around' which gets mapped into the EVENT-INTERNAL TIME domain is that of 'aimlessness'. This is especially evident in example 11b where loitering is supposed to be circumventing something. Because loitering is a static activity whereas circumvention requires movement, one has to conclude that 'around' in (11) cannot be reasonably interpreted as circumvention.

In the diagram below, the schema of 'around' in (11) is mapped onto the event-internal time of the event expressed by "loiter around". The idea of aimlessness is unfortunately not easy to capture in terms of a schema. Lindstromberg uses a line with an arrowhead going in unpredictable loops (136), and this is a strategy adopted here as well. However, one should not infer that the area to which the arrowhead is pointing is a goal, or that the path of aimlessness is always a reflection of this particular path. This schema is just one of the myriad possible schemas representing aimless movement. The LM is equipped with an arrowhead only to indicate rough direction of movement.

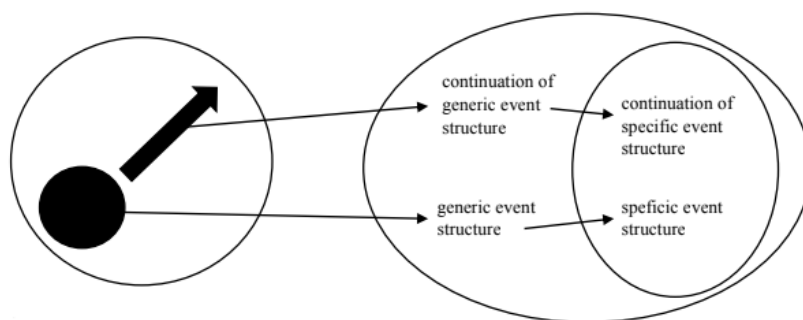
AROUND<sub>11</sub>:



'Away' is a peculiar particle because, as has been said, it is not usually considered a preposition. Indeed, it can *modify* a prepositional phrase, as in *She moved away from this town*, but it cannot function as a headword in one. Lindstromberg nevertheless describes it in terms of an arrangement of a TR and a LM, claiming that 'away' and 'away from' are the same word as far as meaning is concerned (48) and that both describe virtual movement of the TR that may or may not begin in the LM (is left unspecified in that respect). What is mapped into the EVENT-INTERNAL TIME domain is then the LM as the generic event structure, as was the case with 'on', and the path of virtual movement as the continuation of the generic event structure. The diagram below is a representation of Example 12:

(12) Pity the poor slob slaving away in the trenches!

AWAY<sub>12</sub>:



#### 4. DISCUSSION

Iconicity was claimed to explain the aid that human processing receives from linguistic structures as their meaning resembles their physical structure. But why should the congruency between semantics and physical properties be active only on the level of traditional lexemes? Phonemes have a physical--phonetic--realization which has not been considered in this article at all. A potential phonosemantic matter with which this article might be concerned is a physical property of resonants as opposed to obstruents, namely allowing the airflow to continue unimpeded for their pronunciation. While most continuation-marking aspectual particles end in a resonant ('on' /-n/; 'away' /-e/; 'along' /-ŋ/), some telicity-marking aspectual particles end in a stop ('up' /-p/; 'out' /-t/). Can it be said that positioning one's body so that the airflow is continuous when pronouncing most of the continuation-marking aspectual particles provides embodied semantic motivation?

The association is tempting, but assessing the link realistically must lead to a negative answer. Not only do 'around' and 'about', regardless of the fact that the latter is not considered in this article, not end in a resonant, there are also multiple telicity-marking particles ('down', 'through', 'over' in both British and American English) which do, so a correlation between a particle ending in a resonant and marking continuation cannot be established. This is also not true of lexemes in general: there are only very few words in English which both end in a resonant and are connected with movement: even if 'on', 'motion' and 'train' do, 'refrigerator', 'Seattle' and 'belly-button' do not, and neither do a vast majority of others. Finally, since the bodily basis of resonants is the same for all humans, speakers of all languages should be noticing the correspondence between ending in a resonant and denoting continuation. In fact, not even the languages out of which present-day English (PDE) developed observed this proposed "rule": the ancestor of "on" was an ingressive prefix in Old English (OE) and would only become consistently associated with continuation-marking in Early Modern English (Brinton 212, 232-233). Thus, it is safe to say that motivation when it comes to congruency between physical form and meaning is restricted to iconicity only.

This brings us to the historical development of continuation-marking particles. The development offers a part of the answer to the question why people would use a certain particle in a certain situation instead of a different one, as well as why 'on' and 'away' have meanings other than continuation-marking.

According to Brinton, the OE aspectual system relied on prefixes as opposed to particles for encoding the category of aspect. The only PDE particle with a traceable ancestor in the OE period was 'on'. What is peculiar about 'on' is that it was ingressive rather than continuation-marking (Brinton 212). In the Middle English (ME) period, 'on' became a particle and retained its ingressive sense, but an infrequently evoked (Brinton 232) continuative sense developed alongside it before its use became predominately continuation-marking in PDE. The reflex of its ingressive meaning is still detectable in sentences like *Play on!* ("Begin playing!" uttered by a baseball umpire). 'On' was also used when 'onweg' (on + weg), the OE ancestor of 'away', was coined. In OE, "it had both directional and telic meanings" (Brinton 211), with the telic meaning continuing via ME 'away' into PDE (Brinton 228): *The ice melted away*. In PDE, 'away' is only continuative in meaning when it expresses virtual movement. Conversely, 'along', another ME invention<sup>3</sup>, has always marked continuation (Brinton 217) even in its earlier form 'andlang' (231-232). As for 'around', it has already been mentioned that it has only first appeared as a particle after the OE and ME periods--in the 17<sup>th</sup> century

(Lindstromberg 133) to be exact--so there is no OE or ME form of the particle to discuss.

Not only is 'around' the youngest continuation-marking<sup>4</sup> particle--it has also been shown that its conceptual structure is fairly restricted with the notion of aimlessness. Whereas it is impossible to provide a definitive list of situations in which one particle will inevitably be preferred over another (because this is not only a matter of grammar but also pragmatics, linguistic strategy, etc.), it is still possible to say that some particles are more universally applicable for extending the internal time of an event than others. This inherent semantic property of 'around' makes it less universally applicable than, for example, 'on' because the construal of the event whose internal structure 'around' helps continue must also include the notion of aimlessness, or at the very least no notion that would conceptually clash with aimlessness. Similarly, both 'along' and 'away' bring into the construal a specific notion, 'an element with respect to which the event-internal time is specified' and 'virtual movement away from the LM' respectively (not to mention different specifications of contact between TR and LM, and the dimensionality of the LM). It seems that 'on' is the least semantically limited of the continuation-marking particles: unless the event structure is specifically impossible to conceptualize as a two-dimensional LM, 'on' can construe any event structure as continuous as long as the verb used to describe it is not telic.

Because its conceptual structure is rather simple and free, modifying the construal of an event structure as continuous with 'on' should come the most naturally to speakers of English. For this reason, 'on' should be the most frequent means of modifying the event structure in this manner, as well as the most modifiable. Since 'on' is indeed the most commonly used continuation-marking aspectual particles as well as lends itself most readily to utterances where it is repeated for increased effect (cf. examples (1-4)), there must be some merit to this claim.

## **5. CONCLUSION**

This article's main thesis is that the continuation-marking aspectual particles 'on', 'along', 'away', and 'around' are used by native speakers most frequently to construe an event with a prolonged internal structure. It was shown that utterances containing the particles are longer than those without particles, which fits together with their event structures also being internally longer than those of utterances without particles. This is especially relevant with utterances where there are repeated instances of particles. It was also found that some particles such as 'on' are relatively



unhindered by their semantics when it comes to combinatorial possibilities whereas others, like 'along' and 'around', have rather specific meanings which prevent them from being used in certain situations.

Thus, a cognitive-semantic description of continuation-marking aspectual particles was made, which owes a lot of its content to the cognitive-semantic description of prepositions. There are risks of communication failure connected with verbs whose internal structure has been prolonged excessively, which might be true for research articles as well. For this reason, this is a good time to stop.

## END NOTES

1 Walkowa also considers 'about' but since the query function of Sketch Engine fails to find a single result (October 6 2019) where 'about' is used as a particle without being followed by a noun, which is a good indication of a decline of productivity, I will not be considering this particle.

2 Especially coordinated instances of 'along' are extremely infrequent; there are 7 in the entire corpus, one of which is repeated and three of which add semantic content to the verb, which is why they cannot be considered purely aspectual.

3 There is, however, an OE kenning "ondlongne dæg" (end-long day) in *The Battle of Brunanburgh*.

4 Note that "around" can also have a telic sense, as in "By the time October rolled around [...]" (EnTenTen)

5 <https://lexically.net/wordsmith/version6/index.html>. Last access: 27/09/2019.

6 Insufficient accommodative attitude (cf. Dragojevic et al., "Communication Accommodation Theory" 4).

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