Abstract: This study demonstrates a role of time in structuring fictive motion expressions on the basis of empirical language data found in the National Corpus of Polish (NKJP). It focuses on a specific category of fictive motion used to depict forms, orientations, or locations of spatially extended objects in terms of a path over the object’s extent. Although fictive motion employs event structuring, frequencies of language patterns found in the corpus demonstrate that language users tend to avoid articulating such expressions in temporal terms. The avoidance of temporality in fictive motion can be attributed to a basic conceptual difference between objects and force-dynamic events, as distinguished in Langacker’s canonical event model. According to that model, while time is the primary domain of conceptualization for events, for objects the primary domain of conceptualization is space.

Keywords: fictive motion, coextension paths, events, time, space

1. Fictive motion

Fictive motion (Talmy, 1996, 2000; Langacker, 2005, 2008a) refers to figurative representations of motion attributed to immobile material objects, states, or abstract concepts, in which the meaning of motion verbs is semantically extended to express relations that do not involve motion per se, nor change of state. The following sentences (1) and (2) illustrate a specific category of fictive motion used for representation of static objects in space, which was labeled by Talmy (2000) as coextension paths. A coextension path refers to “a depiction of the form, orientation, or location of a spatially extended object in terms of a path over the object’s extent” (Talmy, 2000, p. 138).

(1) The road goes downhill steeply into the valley.
(2) This wire fence goes all the way down to the wall.
As illustrated by the above examples, the described object is stationary and there is no entity traversing the depicted path, however, it is represented as moving along or over its spatial configuration.

Talmy (2000) notes that explanation of fictive motion in terms of metonymy would be inadequate because numerous cases of non-travelable paths cannot be associated with motion, e.g. fences do not move. Talmy (2000, pp. 100–104) considers fictive motion as non-veridical. He attributes the discrepancy between static and dynamic interpretations of fictive motion expressions to a distinction between fictive and factive modes of cognition. The former is more perceptually salient but less veridical, while the latter is more veridical but less perceptually salient. Thus, the “ception”—a neologism coined by Talmy to refer both to perception and conception—of the fictive mode requires perceptual veridicality to be overridden, which occurs naturally due to a general preference for dynamism in linguistic, perceptual, and conceptual semantics.

Matsumoto (1996) points out some intriguing characteristics of fictive motion expressions from the perspective of a cross-linguistic comparison between English and Japanese. He makes a distinction between travelable paths, i.e. paths that can be traveled by people, e.g. roads, paths, etc., as in (1), and non-travelable paths, i.e. paths including objects that do not normally act as media of human motion, e.g. wires, fences, etc., as in (2). Matsumoto (1996, pp. 213–217) reports that while English expresses both these types, in Japanese some non-travelable entities, such as walls and fences, cannot be described with fictive motion. Some other non-travelable entities, such as borders and wires, take a restricted set of motion verbs. This can be motivated by the fact that in Japanese certain motion verbs cannot be used to describe movement of a path that does not involve a perceptuo-motor basis. Rojo and Valenzuela (2009, Exp. 1) do not observe that distinction to occur as vividly in Spanish, but detect that it takes longer for Spanish speakers to process fictive motion sentences with non-travelable entities than parallel sentences with travelable ones.

Moreover, Matsumoto (1996, p. 204) distinguishes two types of fictive motion expressions. Type I includes sentences in which the motion is arbitrary in the sense that it does not occur at any specific time. Type II is associated with an actual experience of motion of the person uttering the sentence (cf. global vs. local view in Langacker, 2005, p. 176; 2008b, pp. 69–70). Matsumoto (1996, p. 205) adds that “perspective mode and scope of attention are not necessarily correlated with the distinction between the motion of a particular entity at a particular time and the motion of an arbitrary entity that can be evoked at any time”.

Langacker (2005, 2008a, 2008b) assumes that fictive motion reflects subjective imaginative mental constructions used to discuss actual existence of objects in real-life scenarios. It involves *mental scanning*, i.e. a partial reactivation of the original experience conceptualized along the imagined trajectory. Langacker (2008a, p. 529) argues that both expressions of actual and fictive motion involve scanning along a path. In actual motion we conceptualize events by tracking a mover's progress along a spatial path that it traverses physically: in *processing time* the mover is successively conceptualized as occupying a series of locations that collectively constitute the path. Accordingly, a motion event is apprehended by the conceptualizer by mentally accessing the successive locations in the same order that the mover reaches them. The movement occurs in *conceived time*, which is inherently involved in any event (cf. Radvansky & Zacks, 2011).

Essentially, in fictive motion the same mental operations are applied to a static scene, where a conceptualization occurs in a manner generally parallel to conceptualizations of actual motion events. An analog of the mover is a spatially extended object. Instead of tracking an object's movement, the conceptualizer scans mentally along the object's path, by which they invoke the constitutive locations to build up to a full conception of the object's spatial configuration. The *conceived time* has no significant role in the expression's objective content, because the object occupies all spatial locations on the path simultaneously. Langacker (2008a, pp. 83, 111–112) proposes to term this mode of building up gestalts manipulable as *summary scanning*.

However, Jackendoff (2002, p. 362) questions whether any sort of scanning is involved in processing fictive motion sentences. He notes that although the sense of an observer scanning the extended object has some intuitive appeal, it does not account for the difference in inference patterns used in formal decomposition of state-functions. Jackendoff (1983, p. 173; 2002, pp. 360–362) argues that the conceptualization of fictive motion is associated with static representations of Paths, which designate directions, shapes, orientations, etc. Paths themselves are atemporal and can appear as arguments of state-functions. From this perspective, coextension path expressions should be viewed as instances of the state variant of GO-function, namely *non-temporal extension*, in which all points of the object's spatial configuration are activated simultaneously. Jackendoff (1983, 2002) suggests two possibilities concerning the relationship between GO and GO$_{\text{EXT}}$. Either they are not distinct functions and the difference depends on whether the GO-function is a feature of an [EVENT] or a [STATE], or alternatively they are distinct functions, but share a common internal structure. Iwata’s (1996) detailed
analysis of motion/extent as two semantic variants of the GO-function provides support for the latter option.

2. Temporality of fictive motion

Matlock (2004a, p. 1390) argues that fictive motion sentences frequently incorporate words and phrases communicating physical movement, which can be denoted in terms of duration, e.g. “The road runs along the coast for 10 minutes”. Additionally, the natural temporality of physical movement is implied by those fictive motion expressions that include verbs communicating fast or slow manners of motion, e.g. “The freeway races past the city” or “Interstate 5 crawls through Los Angeles”. The assumption of temporality of fictive motion expressions is elaborated further in Matlock’s (2004b) discussion on a conceptual motivation of fictive motion constructions. She argues that objects depicted with fictive motion must be sufficiently long to dynamically construe over time for the mental scanning to occur. Matlock (2004b, p. 229) argues that sentences such as (3a) are much more natural than such as (3b) because of the temporality involved in the scanning along the path of a substantially longer object.

(3) a. The road runs along the coast for 2 hours.
b. ? The road runs along the coast for 2 seconds.

She adds, however, that sentences such as (3b) are reasonably plausible, if the intention of the speaker is to contrast a particularly short part of the road in question with other sections of the same road (see also Gibbs & Matlock, 2008 for a discussion of fictive motion from the perspective of embodied simulation).

Matsumoto (1996, p. 186–187) points out that in sentences such as “The highway runs along the coast for a while” the temporal phrase for a while denotes the duration of the process of motion along the coast, which is directly correlated to the length of the relevant section of the highway in question. He emphasizes that in such sentences temporality cannot be attributed to any particular duration of the state of location, which indicates that conceptualizations of fictive motion cannot be explained without assuming some sort of motion processing (see also Zwaan, 2009).

However, Blomberg and Zlatev (2013) argue that neither cognitive linguistic models proposed by Talmy (1996, 2000) and Langacker (2005, 2008a), nor account for fictive motion in terms of mental simulation proposed by Matlock (2004a, 2004b) adequately explain the experiential and linguistic complexity of the phenomenon. They point out that from a phenomenological perspective the view of fictive motion as grounded in mental simulation of movement does not
make clear what is actually simulated because different conceptualizations of fictive motion may be motivated by at least three different features of human consciousness: enactive perception, visual scanning, and imagination. Moreover, they emphasize that fictive motion structuring may be related to sedimentation of meaning, understood as the linguistic consolidation of cognitive structures originally given in embodied sense-experience through certain persisting linguistic conceptualizations superimposed by language acquisition and socio-cultural transmission (Woelert, 2011). Because explanation of fictive motion in terms of mental simulation obscures these aspects, Blomberg and Zlatev (2013) postulate that the full account for fictive motion should be based on a broader phenomenological-linguistic framework, which takes into account consciousness-language interactionism as a complex set of reciprocal relations between pre-linguistic experience and linguistic meaning.

3. A corpus-based study of temporality in structuring fictive motion

This study aims to observe how the assumption of temporality in fictive motion expressions fits into the reality of linguistic performance. More specifically, it is based on an assumption that if the conceived time plays a significant role in cognitive processing of coextension paths, such expressions should feature a significant number of temporal representations in language corpora, which has been observed for actual motion events (cf. Waliński, 2013). This paper parallels a study conducted for English with the BNC (Waliński, 2014a) and systematically expands preliminary research conducted earlier (Waliński, 2013, Ch. 8) by employing a six times as extensive corpus and doubling the number of lexical combinations taken into consideration.

This paper is positioned within a cognitive corpus-based approach to language study, which brings together the descriptive framework of cognitive linguistics (Croft & Cruse, 2004; Evans, 2012; Kardela, 2006) with the methodological workbench of corpus linguistics (McEnery & Hardie, 2012). Essentially, it relies on explanatory notions adopted by the cognitive linguistics framework, but approaches them in such a way that their relevance to a given linguistic phenomenon can be empirically validated in large corpora (Heylen, Tummers & Geeraerts, 2008; see Lewandowska-Tomaszczyk & Dziwirek, 2009; Glynn & Fischer, 2010 for edited collections of studies). This study employs the full archive of Narodowy Korpus Języka Polskiego (the National Corpus of Polish, henceforth, the NCP), which is a 1.5 billion word collection of samples of both spoken and written contemporary Polish (Przepiórkowski, et al., 2012; see www.nkjp.pl for more information). The
NCP has an important advantage of being a publicly available standard reference corpus (McEnery & Wilson, 2001, p. 32), which enables other researchers to attest or expand the present research with nothing else than a web browser.

Fictive motion expressions are problematic to pick out from language corpora because at the syntactic level they are virtually indistinguishable from actual motion expressions. For that reason, the investigation was implemented with a procedure that involves looking for combinations of landmarks that can potentially feature in coextension paths with an ample selection of motion verbs.

Selecting suitable landmarks followed observations (Langacker, 2005; Matlock, 2004b) that coextension paths typically describe extended or elongated stationary spatial entities. Starting with a few prototypical ones, such as road, wire, fence, coast, etc. (PL: droga, przewód, plot, plaża), the online version of SłowoSieć 2.1 – an interface to Polish wordnet (Piasecki, et al., 2009; see plwordnet.pwr.wroc.pl for more information) was consulted to identify other spatially extended objects potentially fit for descriptions with coextension paths. The following four basic categories of landmarks were selected for analysis:

a) Travelable paths, such as footpath, highway, road, bridge, tunnel, viaduct, way, etc.: aleja, alejka, arteria, autostrada, bulwar, chodnik, deptak, droga, dróżka, dukt, estakada, jezdnia, kładka, korytarz, most, mostek, obwodnica, pas, pasaż, pobocze, promenada, przejazd, przejście, przeprawa, szlak, szosa, ścieżka, tor, trakt, trasa, trotuar, tunel, ulica, uliczka, wiadukt. These spatial entities are distinguished by Matsumoto (1996) as paths intended for traveling by people.

b) Travelable natural landmarks, such as beach, coast, desert, field, forest, mountain, valley, etc.: bezdroża, brzeg, cieśnina, cypel, dolina, góra, grań, grzbiet, jar, kanał, kanion, klif, kotlina, las, lodowiec, ląka, masyw, moczary, nabrzeże, niecka, pagórek, parów, pasmo, perć, plaża, płaskowyż, pole, połonina, półwysep, przełęcz, przesmyk, przyłęk, pustynia, puszcza, turnia, wądół, wąwóz, wertezy, wybrzeże, wysepka, wyspa, wzgórze, wzniesienie, zagajnik, żleb. These typically extended or elongated landmarks can also be traveled, however they were not built intentionally for this purpose.

c) Non-travelable connectors, such as cable, line, pipe, pipeline, wire, etc.: drut, instalacja, kabel, linia, łącze, łącznik, magistrala, przewód, rura, rurociąg. These elongated objects are classified by Matsumoto (1996) as non-travelable paths, since they are not normally traveled by people. They include predominantly objects used for transmitting energy or transporting substances over long distance.

d) Non-travelable barriers, such as border, dam, fence, hedge, wall, etc.: bariera, granica, miedza, mur, murek, obwałowanie, ogrodzenie, parkan, plot, siatka,
ściana, tama, wał, zapora, żywopłot. These spatially extended entities are not normally used for traveling since they serve as barriers, but they often stretch over a relatively substantial distance.

 Altogether 105 landmarks were selected. It is noteworthy that this set incorporates diminutive nominal forms commonly used by Polish speakers to refer to less conspicuous paths, e.g. alejka, dróżka, uliczka, mostek, murek [Lit. short/petite: avenue, path, street, bridge, wall] and includes lexicalizations of certain landmarks marked in English with modifiers, e.g. ogrodzenie, plot, siatka [fence, wooden fence, wire fence]. Since the range of objects that can potentially be described with coextension paths is practically unrestricted, the above selection is far from being exhaustive. Still, it seems to be reasonably adequate for the purpose of this study.

 Suitable verbs of motion were selected with reference to a classification proposed by Levin (1993, Ch. 51). They were identified with the help of SłowoSieć 2.1 (2014) and the PWN-Oxford Dictionary (2004). The following categories of motion verbs were selected for analysis:

 a) Verbs of inherently directed motion, e.g. advance, ascend, climb, come, cross, descend, fall, leave, plunge, return, rise, etc. Levin (1993: Ch. 51.1) notes that meaning of these verbs specifies the direction of motion, even if an overt directional complement is not present. The following verbs were selected: dobierać, dobrnąć, dochodzić, doczołgać, dolatywać, dopełnić, dopłynąć, doskakiwać, dowlec, krzyżować, obniżać, odbijać, odbijać, oddalać, odpływać, odskakiwać, omijać, opadać, opuszczać, podchodzić, podchodzić, podkraść, podząkać, podnąć, posybobować, powlec, powłóczyć, przebiegać, przebrnąć, przechodzić, przecinać, przedzierać, przelatywać, przemierzać, przemykać, przełatywać, przebrnąć, przebić, schodzić, spadać, uciekać, unikać, unosić, wchodzić, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wędrować, wę
dążyć, defilować, galopować, gnać, gramolić, hasać, iść, koziółkować, kuleć, kuśtykać, lecieć, lazić, maszerować, mijać, mknąć, mozolić, paradować, pełzać, pędzić, płynąć, podróżować, potykać, rzucać, skakać, skradać, ślizgać, śmigać, śpieszyć, truchtać, utykać, wałęsać, wędrować, wlec, włóczyć, wspinać, zbacać, zmierzać. Levin (1993, Ch. 51.3.2) notes that most of these verbs describe different motion manners of both animate and inanimate entities. She adds that this category probably requires a further subdivision.

ii. Roll verbs, e.g. roll, slide, swing, coil, revolve, rotate, spin, turn, whirl, wind, etc: huśtać, kolysać, kręcić, obchodzić, obiegać, obracać, okręcać, otaczać, owijać, skręcać, toczyć, turlać, wić, wirować, zakręcać, zataczać, zawijać. Levin (1993: Ch. 51.3.1) notes that many verbs that describe motion around an axis take a restricted range of prepositions describing the path of motion.

c) Chase verbs, e.g. chase, follow, pursue, tail, track, etc. They are typically transitive, with the chaser as subject and the entity of pursuit as object (Levin, 1993, Ch. 51.6). The following verbs were selected: gonić, ścigać, śledzić, tropić.

d) Accompany verbs, e.g. accompany, conduct, escort, guide, lead, etc.: ciągnąć, kierować, prowadzić, towarzyszyć, wieść. These verbs basically relate to one person taking another from a place to place. Their meaning is differentiated by the nature of the relation between the two participants (Levin, 1993, Ch. 51.7).

Altogether 160 motion verbs were selected for analysis. The Polish set is somewhat less diverse than the selection of English verbs presented by Levin (1993, Ch. 51). As observed by Kopecka (2010: 241), “Polish does not exploit the slot of the main verb as productively as English does. In Polish, the size of the Manner verb lexicon, although still substantial, appears to be smaller, and the sorts of fine-grained semantic components of Manner lexicalized in the verbs are less diverse”. It is also noteworthy that in Polish some verbs of inherently directed motion are closely related to the verbs of motion manner, as they incorporate perfectivizing prefixes, which developed historically from adnominal elements (cf. Tabakowska, 2003). It must be emphasized that correspondences between English and Polish verbs of motion appear to be rather convoluted and deserve a discussion that far exceeds the scope of this study.

Some categories of motion verbs distinguished by Levin (1993) are not included in the analysis. For example, waltz verbs, i.e. ones that are zero-related to names of dances and mean roughly “to perform the dance” (Levin, 1993, Ch. 51.5), e.g. boogie, polka, rumba, tango, etc., were excluded as too idiosyncratic. The use of instrumental motion verbs (Levin, 1993, Ch. 51.4) in coextension path expressions is normally restricted in fictive motion, which is discussed separately.
(Waliński, 2014c). Although the above selection is far from being exhaustive, it seems to be reasonably adequate for the purpose of investigating the role of time in structuring fictive motion.

Essentially, the above sets allow for checking 16,800 different landmark + motion verb combinations (105 landmarks × 160 verb forms). Additionally, because the NCP offers an underlying morphological dictionary, which allows for querying all declensional forms for nouns and conjugational forms for verbs, the number of analyzed combinations is vastly greater. Since this study aims specifically to identify examples of coextension paths denoted in terms of duration, e.g. “The road runs along the coast for 10 minutes” vis-à-vis ones denoted in terms of distance, e.g. “The road runs along the coast for 10 kilometers”, a unit of space/time measurement was also incorporated in the following lexical pattern used for investigation:

**LANDMARK + MOTION VERB + TEMPORAL / SPATIAL UNIT; SLOP=3, PRESERVE ORDER=YES**

Units of time measurement selected for analysis involve those that are typically used to express duration, i.e. seconds, minutes, hours, and days [moment, sekunda, minuta, godzina, dzień] together with their commonly used abbreviations. Units of space measurement selected for comparison include meter, kilometer and mile [metr, kilometr, mila] together with their abbreviations.

Because lexemes from the above linguistic pattern do not always follow directly one after another in fictive motion expressions, searching was implemented with proximity queries (Bernard & Griffin, 2009). They allow for searches with a slop factor, which specifies how far apart lexical items included in a query can be from one another to be still returned as a result to the query. The slop factor can be used in combination with a binary (yes/no) preserve order option, which indicates whether the original order of query terms should be retained in results. In this study the search was implemented in a relaxed manner using the slop value of 3, but the preserve order option set to “yes” to prevent an excess of coincidental hits. A listing of all queries used to obtain the results together with corresponding concordances retrieved from the NCP has been published online as a research report (Waliński, 2014b), which provides for immediate replicability of the study.

4. Summary of results

Corpus queries based on the above pattern returned 1698 matching concordance lines from the NCP. The resulting set was reviewed to exclude coincidental matches, since the search was implemented using proximity queries with a large
value of slop factor, which while increasing the recall, substantially decreases the precision of results (see Pęzik, 2011). In result, 351 sentences were recognized as fictive motion expressions denoting extension of spatial entities in either spatial or temporal terms. The results found for the selected categories of landmarks are presented in Table 1.

Table 1: Fictive motion denoted in either spatial or temporal terms in the NCP

<table>
<thead>
<tr>
<th>Category of verbs</th>
<th>Coextension paths denoted in spatial terms</th>
<th>Coextension paths denoted in temporal terms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Travelable paths</td>
<td>114</td>
<td>1</td>
</tr>
<tr>
<td>Travelable natural landmarks</td>
<td>124</td>
<td>0</td>
</tr>
<tr>
<td>Non-travelable connectors</td>
<td>31</td>
<td>0</td>
</tr>
<tr>
<td>Non-travelable barriers</td>
<td>81</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>350</strong></td>
<td><strong>1</strong></td>
</tr>
</tbody>
</table>

As shown in Table 1, with one exception all expressions of fictive motion identified in the NCP are denoted in spatial terms, which was found for each selected category of landmarks. The only example of coextension path denoted in temporal terms (4) indicates that the use of temporality in fictive motion tends to be rather occasional in linguistic performance of Polish speakers.

(4) Ścieżka prowadzi teraz 15 min. północną stroną Iwanowskiego Potoku.
    [EN: The path leads now for 15 minutes along the northern side of Iwanowski brook.]

Curiously enough, in that particular example temporality is additionally accentuated by the temporal marker *now*, which indicates that it might be more closely associated with Type II of fictive motion, as distinguished by Matsumoto (1996). However, the sole example found in the corpus is not sufficient to support any systematic claims.

Although it is impossible to discuss the living organism of language in absolute numbers, the results suggest that on the basis of linguistic intuition we cannot assume that fictive motion expressions frequently incorporate phrasing that communicates physical movement in terms of duration (cf. Matsumoto, 1996; Matlock, 2004a; 2004b). The absence of temporal representations in fictive motion expressions identified with the above discussed procedure in the National Corpus of Polish is particularly conspicuous when compared to a substantial
proportion of temporal representations found for the *motion-framed distance* (cf. Waliński, 2013).

### 5. Conclusions

Results obtained in this study demonstrate a peripheral role of the *conceived time* in structuring fictive motion. Obviously, the *processing time* is still involved, since even atemporal conceptions of static relations in space are conceptualized through mental processing, which requires time to occur in the first place (cf. Langacker, 2005; 2008a, p. 79, 529). The findings confirm the *non-veridical* nature of fictive motion (Talmy, 1996; 2000, Ch. 2), which, despite involvement of practically identical verbs and syntactic structures as actual motion expressions, is used to describe relations that do not involve motion per se nor change of state. Although the surface linguistic structure of fictive motion expressions reflects a cognitive bias towards *dynamism*, the apparent atemporality of coextension paths in linguistic performance indicates that at the conceptual level they are often processed as figurative representations of non-temporal states of spatial extension (Jackendoff, 1983, p. 173; 2002, pp. 360–362; Iwata, 1996).

The apparent absence of temporality in coextension paths can be attributed to the basic conceptual difference between static physical objects and force-dynamic interactions conceptualized as events (Langacker, 2008, 2012; see also Engberg-Pedersen, 1999). Because all events occur dynamically along the temporal axis as well as along the spatial axis (Radvansky & Zaacks, 2011), it is natural for temporal representations to frequently figure in linguistic expressions of distance involving actual motion. For the same reason, because fictive motion events are non-veridical, it is not overly surprising that temporality does not feature frequently in coextension paths. Because space is fundamentally static and globally accessible in nature (Galton, 2011; Langacker, 2012), figurative descriptions of objects with fictive motion hardly ever require temporal representations.

The relative absence of temporality in fictive motion found in empirical linguistic data suggests that there exist two cognitive modes of processing fictive motion, which fits into the *overall framework of fictivity* proposed by Talmy (2000, pp. 99–103). The results obtained in psycholinguistic experiments seem to demonstrate the *fictive mode*, in which processing of fictive motion takes place in a manner to some extent parallel to actual motion. This mode has arguably a greater potential for denoting spatial extension in terms of duration, since it involves an association with physical movement. On the other hand, the atemporality of coextension paths found in language corpora points at the *factive mode*, in which coextension paths are processed as atemporal expressions of spatial extension.
The link between linguistic structuring and evocation of an actual sense or conceptualization of motion is difficult to draw precisely. As emphasized by Talmy (2000, pp. 104–105), for the same instance of fictive motion expression some speakers will report a strong semantic evocation of motion, while others will report that there is none at all. The choice of either factive or fictive mode of conceptualization may be related to the dynamic potential of the linguistic structure, which may far exceed the scope of a single sentence. Coextension path expressions used in depictions of spatial scenes, which are inherently dynamic and multidimensional, have a greater potential to engage the fictive mode than a single sentence used every now and then to express a simple relation of distance. The factive mode of processing can also be attributed to sedimentation of meaning (Woelert, 2011; Blomberg & Zlatev, 2013). Since fictive motion is a convenient means of denoting spatial relations readily available in the conceptual repertoire of language users, it is likely to be used to describe spatial configurations of objects, at least in a good number of cases, in a parrot fashion dissociated from movement.

References


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