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Route verbs in English and Polish expressions of fictive motion

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Abstract
This study discusses the use of route verbs in English and Polish expressions of fictive motion. It demonstrates that while in English the verbs *cross* and *pass*, which are prototypically used to express routing relations, can be used in most scenarios interchangeably, their Polish equivalents used in this context cannot always replace one another. This indicates that, despite sharing certain common properties, fictive motion expressions in English and Polish are highly conventionalized and subject to interactions between conceptual motivations and language specific semantic constraints.

Keywords: motion events, fictive motion, motion verbs, routes, lexical semantics

1. Introduction

This study discusses the use of route verbs for describing spatial relations in the context of fictive motion events. Language abounds in references to fictive entities invoked for describing real-life situations. Langacker (2005, 2008, Ch. 14.2) starts the discussion on linguistic *fictivity,* also referred to as *virtuality* (Langacker, 1999), from the reflection that a lexical noun by itself (e.g. *book, air*) merely specifies a type of thing, not any specific instance of that type. Similarly, a lexical verb by itself (e.g. *go, love*) merely specifies a type of event or situation, which Langacker terms a *process*, not any particular instance of the process. He points out that the thing or process designated by a *type* specification is fictive in nature as it does not refer to an actual thing or an actual process as such (cf. *sense* and *reference* in Frege, 1892/1960). For example, in the statement "I don't have a sister," the type specification *a sister* is conjured up in order to specify what is not the case, i.e. non-existence of any representative instance of this type. Thus, a *type* can be essentially described as a fictive entity that "represents an abstraction

from actuality which captures the commonality inherent across a set of actual instances" (Langacker, 2005, p. 170).

A *type* of thing or process can correspond to any number of instances of that type. While the type projects to all its specific instances, it does not refer to any particular instance. Langacker points out that it is important to keep in mind not only how *types* are connected to *actuality*, but also how they arise from it "as a kind of generalization over actual occurrences, such that sets of occurrences are perceived as being alike in significant respects" (Langacker, 2005, p. 170). He emphasizes that the *type/instance* distinction does not equal the *fictive/actual* distinction. Types are always fictive entities, but instances do not necessarily have to be actual – they can either be actual or fictive. For example, let's consider the sentence "This road runs to Glasgow," which refers to an actual road built to provide an easy access to the city of Glasgow. The linguistic reference to motion – namely *runs* – appears to be at the instance level. However, while the sentence is a statement about actuality (both the road and the city are actual instances), the process of motion conjured up to describe the road is fictive in nature because no actual movement occurs. This demonstrates that in order to grasp the expression's overall meaning, we must apprehend not only what is directly coded linguistically, but also how the fictive entities are connected to actuality (see also Głaz, 2014).

2. Fictive motion

A number of linguistic studies discuss expressions like (1.a–d), found in the British National Corpus:

(1) a. The main *street sweeps* southward up the hill.
b. The service *pipe runs* underground.
c. Towering *mountains surround* the village.
d. This wire *fence goes* all the way down to the wall at the other end.

What is noteworthy about these sentences is that the described object is stationary and there no entity traversing the depicted path, however, it is represented as moving along its spatial configuration. Although the first two sentences (1a–b) refer to spatial objects that serve as media of motion, the other two (1c–d) describe objects that are difficult to associate with movement (Talmy, 2000, p. 104; Matsumoto, 1996, p. 187).

The phenomenon of employing motion verbs to describe spatial configurations that do not involve actual motion or change of state has been discussed in cognitive linguistic studies for over 35 years under a range of different labels.

In 1983, Talmy observed that some apparent linear-locative cases in spatial descriptions can be interpreted more efficiently in terms of reference to a moving point or line, rather than a stationary entity (Talmy, 1983, p. 236). At the same time, Jackendoff (1983) pointed out that sentences such as (1a–d) pass tests for *state* rather than *event* expressions. He termed them *extent sentences*, and categorized verbs used in such sentences as *verbs of extent* (Jackendoff, 1983, p. 173). He emphasized that in his framework "these conceptual structures are organized spatially and nontemporally" (Jackendoff, 1983, p. 169), which denies motion as part of their semantics.

Three years later, Langacker (1986, p. 464–466) discussed *abstract motion* expressions used to refer to stable situations in which nothing is actually moving or otherwise changing. He termed this special kind of motion used to discuss spatial configurations *subjective motion* to emphasize that in this case the motion occurs on the part of the conceptualizer. He pointed out that the temporal component necessary for considering it to be a type of motion can be obtained by taking into account the time of the construal itself. The term *subjective motion* was later adopted by Matsumoto (1996), who demonstrated some intriguing characteristics of fictive motion expressions from the perspective of a cross-linguistic comparison between English and Japanese.

Over the years the phenomenon of fictive motions has been analyzed from the perspective of various cognitive linguistic frameworks. Langacker's (1986, 2005, 2008, Ch. 14) account assumes that fictive motion involves *mental scanning,* by which the conceptualizer builds up a full conception of an object's spatial configuration. In Talmy's (1996, 2000, Ch. 2) framework of *general fictivity*, which takes into account how non-veridical forms of motion are both expressed linguistically and perceived visually, fictive motion is approached in terms of the discrepancy between two cognitive representations of the same entity in which one is assessed as being more veridical than the other. Fictive representations occur naturally due to our kinesthetic inclination to perceive static objects as features of the environment that afford movement.

Although fictive motion is largely reconcilable with *conceptual metaphor theory* (Lakoff & Johnson, 1980; Lakoff & Turner, 1989), Kövecses (2015) argues against metaphoric interpretations of coextension path expressions because they would call for a reversal of the typical direction of source-to-target mappings. However, fictive motion can be successfully interpreted in terms of *conceptual integration theory* (Fauconnier, 1997; Fauconnier & Turner, 2002), as a result of blending inputs from the domains of motion and immobility.

Talmy (1996, 2000, Ch. 2, 2011) distinguishes a number of relatively distinct categories of fictive motion, which embrace representations of motion attributed to immobile material objects, states, or abstract concepts. Within this taxonomy,

what was previously discussed in the linguistic literature under the above-mentioned variety of labels was distinguished as the category of *coextension paths* (Talmy, 2011, p. 632). This study focuses specifically on fictive motion in this particular narrow sense. For this reason, throughout this paper, unless otherwise indicated, the terms *coextension paths* and *fictive motion* are used interchangeably.

3. Routing relations in spatial semantics

Discussing the semantics of spatial expressions (Jackendoff, 1983, Ch. 9) argues that spatial prepositional phrases (PP) can function referentially to express both [PLACES] and [PATHS], which he regards as the most important distinction within their senses. While a [PLACE] projects into a point or region, a [PATH] has more varied structure and plays a wider variety of roles both in *events* and *states*. Jackendoff (1983, p. 163) argues that the internal structure of the [PATH] typically consists of a *path-function* coupled with a *reference object*, e.g. "toward the mountain," "around the tree", and "to the floor," or a *reference place*, e.g. "from under the table," where *from* expresses the path-function and *under the table* expresses the reference [PLACE].

Jackendoff assumes that paths can be divided into three generic categories, stemming from the path's relationship to the reference object or place. (a) *Bounded paths* include *source-paths*, for which the usual preposition is *from*, and *goal-paths*, for which the preposition is *to*. (b) In *directions*, the reference object or place is not included in the path, but would, if it were extended further. Most common transitive prepositions expressing directions are *toward*, and *away from*; most common intransitive prepositions are *up(ward), down(ward), forward, backward, homeward,* etc. (c) In *routes*, the reference object or place is related to some point on the path, e.g. "by the house," "through the tunnel," etc. (Jackendoff, 1983, pp. 165–166).

Zwarts (2008), after distinguishing two major categories of *locative* and *directional* prepositions, follows Jackendoff (1983) to point out that directional prepositions largely correspond to paths. With reference to spatial and aspectual dimensions expressed by prepositions in spatial expressions, Zwarts (2008, p. 84) proposes to distinguish some basic classes of directional prepositions. For instance, (a) *Source* prepositions impose a locative condition on the initial part of the path, e.g. *from*; (b) *Goal* prepositions indicate the opposite pattern, putting emphasis on the final part of the path, e.g. *into*; (c) *Route* prepositions impose a locative condition on a middle part of the path, e.g. *past, through, across,* and *over*; (d) *Comparative* prepositions involve a spatial ordering of the extremes of the path,

with *towards* referring to paths that have their endpoint closer to the reference object than their starting point, and *away from* referring to paths going further and further away from the starting point. Zwarts (2008) suggests that the characteristics of paths can be extended to embrace the semantics of dynamic verbs, giving a partial typology of "event shapes" as places and paths in the conceptual space of events (see Zwarts, 2008, pp. 98–103 for a broader discussion).

Following this distinction, Geuder & Weisgerber (2008) propose to divide verbs of motion specifying a particular trajectory or contour in a way parallel to directional prepositions. Their proposal allows to distinguish the following types of directional verbs of motion: (a) *Goal* verbs relate to the end point on the path of motion, e.g. *enter, arrive*; (b) *Source* verbs relate to the starting point on the path of motion, e.g. *exit, depart*; (c) *Route* verbs relate to intermediate points on the path of motion, e.g. *cross* and *pass*; (d) *Comparative* verbs relate to movement closer to/further from a reference object, e.g. *approach*.

Rappaport, Hovav and Levin (2010, p. 30) point out that although the above-distinguished *route verbs*, like *cross* and *pass*, tend to be ascribed to the category of directional motion verbs (e.g. Levin, 1993; Papafragou & Selimis, 2010; Slobin, 1996), they are not verbs of scalar change (cf. Beavers, 2008). Although they specify motion along a path defined by a particular axis, the direction of motion along the path is not lexicalized by the verb, i.e. they do not impose an ordering relation on the path. For instance, the verb *cross* is equally applicable whether a traversal is from England to France or from France to England. On the other hand, they are neither verbs of motion manner, which suggests that they belong to a separate group.

4. Route verbs in fictive motion

This study approaches the question how route verbs are used in fictive motion expressions from the perspective of cognitive corpus-based linguistics, which combines the descriptive framework of cognitive linguistics (Dancygier, 2017) with the methodological workbench of corpus linguistics (Biber & Reppen, 2015). This approach to language study focuses on examining how linguistic expressions are actually used in natural contexts, rather than on speculating about what is theoretically possible in language (Gries & Divjak, 2010). Coextension path expressions are problematic to single out from corpora because at the syntactic level they are practically indistinguishable from actual motion expressions. For this reason, searching for the use of directionality in coextension paths was implemented by looking for combinations of a broad selection of landmarks that can potentially be described with fictive motion with an array of directional motion verbs.

The choice of suitable landmarks was based on observations that coextension paths typically describe extended or elongated stationary spatial entities (Langacker, 2005; Matlock, 2004). Starting with a few prototypical ones, such as "road," "wire," "fence," "coast," etc., the online version of *WordNet* (Fellbaum, 2017) was consulted to review hyponyms, meronyms, and sister terms in order to identify other spatially extended objects potentially fit for description with coextension paths. For the purpose of the present study the following four categories of landmarks were selected: (a) *travelable paths*: "alley, artery, avenue, boulevard, bridge, flyover, footpath, highway, lane, motorway, overpass, passage, passageway, path, pathway, pavement, railway, road, roadway, route, street, subway, thoroughfare, track, trail, tunnel, underpass, viaduct, walkway, way." These spatial entities are distinguished by Matsumoto (1996) as paths intended for traveling by people; (b) *travelable environmental entities*: "beach, canyon, cliff, coast, coastline, crag, desert, escarpment, field, forest, glacier, glen, grassland, gulf, gully, hill, island, land, littoral, meadow, mountain, plateau, ravine, ridge, scarp, seashore, shore, valley, wasteland, wilderness." These typically extended or elongated landmarks can also be traveled, however, they were not built intentionally for this purpose; (c) *non-travelable connectors*: "cable, conduit, conveyor, duct, hose, line, pipe, pipeline, tube, wire." These elongated objects, which are typically used for transmitting energy or transporting substances over long distance, are classified by Matsumoto (1996) as *non-travelable paths* because they are normally not traveled by people; (d) *non-travelable barriers*: "barrage, barricade, barrier, dam, fence, hedge, hedgerow, palisade, rampart, wall." These spatially extended entities are not normally used for traveling, but they often stretch over a relatively substantial distance. Altogether, 80 landmarks were selected for analysis, including 60 items for travelable paths and 20 items for non-travelable paths. This selection seems to be reasonably adequate for the purpose of retrieving a range of coextension path sentences from a corpus. Enumerating all objects that can potentially be described with fictive motion is impossible, if only for the creativity of linguistic expression.

More specifically, the search for the directional expressions of fictive motion was implemented by looking for combinations of the selected landmarks with third-person singular simple present and past forms of the route verbs using the following pattern: LANDMARK (noun sing.) + ROUTE VERB (3rd sing. present/past tense). Following the above-reviewed classifications proposed by Geuder and Weisgerber (2008), Jackendoff (1983); Levin (1993), Rappaport Hovav and Levin (2010), and Zwarts (2008), two prototypical route verbs were selected to analysis, namely *cross* and *pass*.

For English, the results presented in this study are based on searching the British National Corpus (World Edition), which is a 100 million word collection of samples of written and spoken contemporary British English from a wide range of

texts, not limited to any particular subject field, genre, or register (Burnard, 2000).

The search for the route verbs in fictive motion expressions returned 175 sentences from the BNC. The resulting concordance was reviewed to exclude coincidental matches. As a result, 145 sentences were identified as valid examples of coextension paths, including 63 examples for the verb *cross* and 82 examples for the verb *pass* (cf. Waliński, 2017) for a full listing of all sentences retrieved from the corpus for the route verbs.

A selection of examples found for the verb *cross* is presented below.

(2) a. At one point the path crosses the River Almond
b. Darlington Railway crosses 100 bridge spans
c. The road crosses open moorland
d. The route crosses through agricultural land
e. From York a bridge crosses into the village
f. Here the main London Bridge–Brighton railway crossed over the road.

The results of the query indicate that in fictive motion, the verb *cross* is used to indicate that the configuration of a path goes through a specific point, typically belonging to an object oriented perpendicularly to the path, e.g. a river, road, etc., as in (2a), or multiple points, as in (2b). The verb can also refer to crossing an area (2c), which can additionally be emphasized with the proposition *through*, as in (2d). The end point (goal) can be specified with a prepositional phrase, as in (2e), which makes this expression telic. The prepositional phrase can also provide details about a relation between the crossing figure and the ground being crossed on the vertical plane, as in (2f).

A selection of examples found for the verb *pass* is presented below.

(3) a. The road passes the farm of Braida Garth
b. After 2 miles road passes three houses
c. The route passes through spectacular countryside
d. The Pennine Way passes within ten miles of the village, and the coast to coast path passes right through
e. A short mile further on, the road passes over the stream
f. From Castle Cary the Way passes to the left of the George Hotel into Paddock Drain

The examples retrieved from the corpus indicate that in coextension path expressions the verb *pass* specifies that the spatial configuration of a path goes beside a specific point as in (3a), or a series of points, as in (3b). However, when followed by the preposition *through*, the verb can be used to specify that the configuration of a path goes through a point or an area (3c), which approximately

parallels the semantics of crossing. This is particularly visible in the example (3d), which includes both senses. Various relations between the described path and a reference ground can be specified with prepositional phrases, e.g. “along the bottom of a gorge,” “below the shapely peaks,” “behind the youth hostel,” “under the river,” “over the stream.” The unboundedness of a path lexicalized by the verb can be restricted by adpositional phrases providing details about the source and/or the goal of a path, as in (3f).

A parallel examination was conducted for Polish. A selection of equivalent Polish verbs was identified with the help of the *PWN-Oxford English-Polish Dictionary* (2004) and *SłowoSieć* – the online interface to Polish wordnet (Piasecki et al., 2009). The examples cited below come from the National Corpus of Polish (Przepiórkowski, et al., 2012). Finding equivalent motion verbs between English and Polish is not always a straightforward task, despite the fact that both these languages belong to the *Satellite-framed* group (Talmy, 2000). For instance, the verb *walk* is to some extent subsumed in the Polish verb *spacerować*, and is often translated using the more generic verb *iść*, but it can be rendered in the opposite direction by numerous English verbs, such as *amble, mosey, perambulate, promenade, saunter,* and *stroll*, depending on the particular context. Verbs *march* (*maszerować*), *fly* (*latać*), and *sail* (*żeglować*), at first glance seem to be largely correspondent between English and Polish, but they also have uses which are not compatible, e.g. *latać po zakupy – to run around shopping*, etc. A similar situation occurs for the verbs *cross* and *pass*, which have multiple counterparts in the Polish lexicon.

The relation of crossing can be expressed in Polish, as one option, by using the phrase *iść/przechodzić przez*[1] [go across]. However, this option is based on the generic verb *iść/przechodzić* [go] modified with the appropriate preposition, rather than a specific equivalent. As another option, the verb *przecinać* [cut] can be employed as an equivalent, e.g. “Droga przecina Odrę” [lit. The road cuts the Oder]. When used with the appropriate prepositions, e.g. *przez* [through], *obok* [beside], ponad [above], etc. it can express a variety of crossing configurations. However, this verb relates to the semantics of cutting, rather than crossing as such. Probably the closest lexical equivalent that can be found in this context is the verb *krzyżować się z* [cross with, reflexive from]. When modified by the appropriate

[1] The Polish verbal forms *iść/przechodzić*, *mijać/omijać*, etc., reflect different aspectual forms. It must noted that in Polish the verbal category of aspect cannot be compared on the basis of one-to-one correspondence to aspect in English. As summarized by Fisiak, Lipińska-Grzegorek and Zabrocki (1987, p. 96), “The Polish aspectual forms of verbs distinguish various types of the same activity. The main semantic factors determining the aspectual oppositions are the following ones: completed vs. non-completed action, one occurrence vs. repeated occurrence of the same action, the temporal range of the activity: short vs. long, stress on the initial or final phase of the activity, etc.”.

prepositional phrase, it can express both the relation of two paths crossing at a certain point/area in space, e.g. "Skwer leży pośrodku tego kompleksu. Krzyżują się na nim trasy, którymi wędruje młodzież" [lit. The square lies in the middle of this complex. The routes used by young people for wandering cross each other at this point], and the relation of passing, i.e. crossing beside a point/area in space, e.g. "Objazd krzyżuje się z torami kolejowymi obok tamy" [lit. The detour crosses itself with the railway next to the dam].

The relation of passing can also be expressed with a range of Polish equivalents. As a basic option, the relation of passing can be expressed with use of the phrase *iść/przechodzić obok* [go past]. Again, this option employs the generic verb *iść/przechodzić* [go] with the appropriate preposition, rather than a specific equivalent. A more specific equivalent that can be employed in this context is the verb *mijać/omijać* [pass beside/around]. However, the lexical semantics of this Polish verb expresses explicitly the relation of passing at a certain distance, without physical contact. Therefore, modifying it with the preposition *przez* [through] to express the relation of crossing does not appear to be a natural option. In such scenarios, the more generic phrase *iść/przechodzić obok* [go past] is more likely to be used.

5. Conclusions

The verbs *cross* and *pass* frequently feature in expressions of fictive motion. Their high frequency in data found in the BNC (see Waliński, 2018 for a broader corpus-based study of verbs used in fictive motion) indicates that the routing relations are among the most prevalent spatial conceptions expressed with coextension paths. They tend to be used to specify that the spatial configuration of a path goes either through or beside a specific point. What can be observed in the corpus data retrieved from the BNC is that their frequency in coextension paths is relatively proportional (63 valid examples found for the verb cross vs. 82 for the verb pass in the 100 million language sample). In English, they tend to follow correspondent syntactic patterns in fictive motion expressions, by either taking a direct object as the verb complement or a similar range of prepositions. Moreover, despite the fact that their semantics differs, when modified with the appropriate prepositions, they can replace each other in some contexts to express parallel configurations, e.g. "The path crosses the field" vs. "The path passes through the field" or "The road passes the farm" vs. "The road crosses beside the farm."

However, in Polish, even if followed by the appropriate prepositional phrase, the prototypical equivalents for the verb *cross* (*krzyżować*) and pass (*mijać/omijać*) cannot always function interchangeably in coextension path expressions.

Since it is impossible to find disjunctive and exhaustive one-to-one correspondences between English and Polish verbs of motion, it is plausible to assume that English and Polish route verbs embrace largely overlapping semantic fields in coextension path expressions, but their use is restricted by the language specific conventions. This indicates that while the shared features of fictive motion observed across different languages stem from the universal nature of apprehending spatial relations, the linguistic structuring of fictive motion is mediated by the grammatical and lexical structure of the particular language (see Blomberg, 2015; Stosic, et al., 2015 for broader cross-linguistic studies).

References

Beavers, J. (2008). Scalar complexity and the structure of events. In J. Dölling, T. Heyde-Zybatow, & M. Schäfer (Eds.), *Event Structures in Linguistic Form and Interpretation*, (pp. 245–265). Berlin: Walter de Gruyter.

Biber, D. & Reppen, R. (Eds.). (2015). *The Cambridge Handbook of English Corpus Linguistics*. Cambridge: Cambridge University Press.

Blomberg, J. (2015). The expression of non-actual motion in Swedish, French and Thai. *Cognitive Linguistics*, *26*(4), 657–696.

Burnard, L. (Ed.). (2000). *Reference Guide for the British National Corpus (World Edition)*. Oxford: Oxford University Computing Services.

Dancygier, B. (Ed.). (2017). *The Cambridge Handbook of Cognitive Linguistics*. Cambridge: Cambridge University Press.

Fauconnier, G. (1997). *Mappings in Thought and Language*. Cambridge: Cambridge University Press.

Fauconnier, G. & Turner, M. (2002). *The Way We Think: Conceptual Blending and the Mind's Hidden Complexities*. New York: Basic Books.

Fellbaum, C. (2017). WordNet: An Electronic Lexical Resource. In S. E. F. Chipman (Ed.), *The Oxford Handbook of Cognitive Science*, (pp. 301–314). Oxford: Oxford University Press.

Fisiak, J., Lipińska-Grzegorek, M., & Zabrocki, T. (1987). *An Introductory English-Polish Contrastive Grammar, 2nd Ed*. Warszawa: Państwowe Wydawnictwo Naukowe.

Frege, G. (1892/1960). On Sense and Reference [Originally published as Über Sinn und Bedeutung in 1892]. In P. Geach & M. Black (Eds.), *Translations from the Philosophical Writings of Gottlob Frege, 2nd Ed*., (pp. 56–78). Oxford: Basil Blackwell.

Geuder, W. & Weisgerber, M. (2008). *Manner of Movement and the Conceptualization of Force*. Slides presented at the Journée d'étude "Il y a maniere et maniere," Université d'Artois, Arras.

Głaz, A. (2014). When -ities collide: Virtuality, actuality, reality. In K. Rudnicka-Szozda & A. Szwedek (Eds.), *Cognitive Linguistics in the Making*, (pp. 77–88). Frankfurt am Main: Peter Lang.

Gries, S. T. & Divjak, D. (2010). Quantitative approaches in usage-based Cognitive Semantics: Myths, erroneous assumptions, and a proposal. In D. Glynn & K. Fischer (Eds.), *Quantitative Methods in Cognitive Semantics: Corpus-Driven Approaches*, (pp. 333–353). Berlin: De Gruyter Mouton.

Jackendoff, R. (1983). *Semantics and Cognition*. Cambridge, MA: MIT Press.

Kövecses, Z. (2015). *Where Metaphors Come from: Reconsidering Context in Metaphor*. New York: Oxford University Press.

Lakoff, G. & Johnson, M. (1980). *Metaphors We Live By*. Chicago: University of Chicago Press.

Lakoff, G. & Turner, M. (1989). *More than Cool Reason: A Field Guide to Poetic Metaphor*. Chicago: University of Chicago Press.

Langacker, R. W. (1986). Abstract Motion. In *Proceedings of the Twelfth Annual Meeting of the Berkeley Linguistics Society*, (pp. 455–471). Berkeley, CA: Berkeley Linguistics Society.

Langacker, R. W. (1999). Virtual reality. *Studies in the Linguistic Sciences*, *29*(2), 77–103.

Langacker, R. W. (2005). Dynamicity, fictivity, and scanning: The imaginative basis of logic and linguistic meaning. In D. Pecher & R. A. Zwaan (Eds.), *Grounding Cognition: The Role of Perception and Action in Memory, Language, and Thinking*, (pp. 164–197). Cambridge: Cambridge University Press.

Langacker, R. W. (2008). *Cognitive Grammar A Basic Introduction*. Oxford: Oxford University Press.

Levin, B. (1993). *English Verb Classes and Alternations: A Preliminary Investigation*. Chicago: University of Chicago Press.

Matlock, T. (2004b). The conceptual motivation of fictive motion. In G. Radden & K.-U. Panther (Eds.), *Studies in Linguistic Motivation*, (pp. 221–248). Berlin: Mouton de Gruyter.

Matsumoto, Y. (1996). Subjective motion and English and Japanese verbs. *Cognitive Linguistics*, *7*(2), 183–226.

Papafragou, A., & Selimis, S. (2010). Event categorisation and language: A cross-linguistic study of motion. *Language and Cognitive Processes*, *25*(2), 224–260.

Piasecki, M., Broda, B., & Szpakowicz, S. (2009). *A Wordnet from the Ground Up*. Wrocław: Oficyna Wydawnicza Politechniki Wrocławskiej.

Przepiórkowski, A., Bańko, M., Górski, R. L., & Lewandowska-Tomaszczyk, B. (Eds.). (2012). *Narodowy Korpus Języka Polskiego*. Warszawa: Wydawnictwo Naukowe PWN.

Rappaport Hovav, M. & Levin, B. (2010). Reflections on manner/result complementarity. In M. Rappaport Hovav, E. Doron, & I. Sichel (Eds.), *Lexical Semantics, Syntax, and Event Structure*, (pp. 21–38). Oxford: Oxford University Press.

Slobin, D. I. (1996). Two Ways to Travel: Verbs of Motion in English and Spanish. In M. Shibatani & S. A. Thompson (Eds.), *Grammatical Constructions: Their Form and Meaning*, (pp. 195–219). Oxford: Oxford University Press.

Stosic, D., Fagard, B., Sarda, L., & Colin, C. (2015). Does the road go up the mountain? Fictive motion between linguistic conventions and cognitive motivations. *Cognitive Processing*, 16 (S1), 221–225.

Talmy, L. (1983). How language structures space. In H. L. Pick & L. P. Acredolo (Eds.), *Spatial Orientation: Theory, Research, and Application*, (pp. 225–282). New York: Plenum Press.

Talmy, L. (1996). Fictive Motion in Language and "Ception." In P. Bloom, M. A. Peterson, L. Nadel, & M. F. Garrett (Eds.), *Language and Space*, (pp. 211–276). Cambridge, MA: MIT Press.

Talmy, L. (2000). *Toward a Cognitive Semantics, Vol. I: Concept Structuring Systems*. Cambridge, MA: MIT Press.

Talmy, L. (2011). Cognitive Semantics: An overview. In C. Maienborn, K. von Heusinger, & P. Portner (Eds.), *Semantics: An International Handbook of Natural Language Meaning*, (Vol. 1, pp. 622–642). Berlin: Mouton de Gruyter.

Waliński, J. T. (2017). *Relations of routing (cross and pass) in coextension paths in the British National Corpus* (PELCRA Research Report No. 03/JTW/2017). Łódź: University of Łódź.

Waliński, J. T. (2018). *Verbs in Fictive Motion*. Łódź: Wydawnictwo Uniwersytetu Łódzkiego.

Zwarts, J. (2008). Aspects of a typology of direction. In S. D. Rothstein (Ed.), *Theoretical and Crosslinguistic Approaches to the Semantics of Aspect*, (pp. 79–105). Amsterdam: John Benjamins.

Reference materials

BNC. (2001). The British National Corpus [World Edition] Oxford: Oxford University Computing Services. Available from OUCS at: http://www.natcorp.ox.ac.uk

The PWN-Oxford English-Polish and Polish-English Dictionary (2004). [CD-ROM]. Warszawa: Wydawnictwo Naukowe PWN.

SłowoSieć Online Search 2.1. (2012). A lexical database for Polish with mappings between Polish WordNet and English [Princeton] WordNet. Wrocław: Wrocław University of Technology. Available at: plwordnet.pwr.wroc.pl

WordNet Online Search 3.1. (2010). A lexical database for English. Princeton: Princeton University. Available at: http://wordnetweb.princeton.edu/perl/webwn