INCONSISTENCIES IN TEMPORAL METAPHORS:
IS TIME A PHENOMENON OF THE THIRD KIND?

Abstract. This paper discusses the problem of inconsistencies in the metaphorical conceptualizations of time that involve motion within the framework of conceptual metaphor theory (CMT). It demonstrates that the TIME AS A PURSUER metaphor contrasts with the reverse variant TIME AS AN OBJECT OF PURSUIT, just as the MOVING TIME metaphor contrasts with the MOVING OBSERVER variant. Such metaphorical conceptualizations of time functioning as pairs of minimally differing variants based on Figure-Ground reversal are, strictly speaking, inconsistent with one another. Looking at these inconsistencies from a wider perspective suggests that time may belong to a separate category of conceptual phenomena. This paper puts forward a proposal to approach time from the perspective of “phenomena of the third kind”, which according to Keller’s thesis include conceptual establishments resulting from human cognition, but not of human design.

Keywords: temporality, conceptual metaphor theory, time as motion, duality, cognitive corpus-illustrated linguistics.

1. Introduction

Language and time are intertwined in cognition in many reciprocal ways. Linguistic communication takes place in time, and language has developed in time. Language also serves as the principal means for understanding time, its structuring, and representing (see Allwood, 2002; Boroditsky, 2011; Jaszczolt, 2012; Langacker, 2012; Lewandowska-Tomaszczyk, 2014 for reviews). Cognitive linguistic studies often discuss metaphorical conceptions of time as motion in two major variants: MOVING TIME and MOVING OBSERVER (e.g. Lakoff & Johnson, 1999, pp. 141–148; Moore, 2006, 2014; Radden, 2004). In the MOVING TIME metaphor the observer is stationary and time is moving, whereas in the MOVING OBSERVER variant the observer is moving and time is stationary. Another variant of the metaphorical con-
ceptualizations of time that involve motion, namely TIME AS A PURSUER, has been discussed within the framework of conceptual metaphor theory rather sparsely (Kövecses, 2010, p. 56; Lakoff & Turner, 1989). In a recent study devoted to temporal cognition, Ruiz de Mendoza Ibáñez and Barreras Gómez (2015) discuss a cluster of metaphors related to the carpe diem motif in Marvell’s (1681/1936) poem To His Coy Mistress. The TIME AS A PURSUER metaphor, which is discussed in that study under the umbrella term TIME MOVES, shows time as a motive force that impels us forward from behind:

But at my back I always hear
Time’s winged chariot hurrying near;
And yonder all before us lie
Deserts of vast eternity.

Perhaps less common nowadays than it used to be due to the commoditization of time in Western culture (Landes, 2000), this metaphor still functions in this day and age, which can be exemplified by the following quote form Daily Mail Online:

Wimbledon champion Novak Djokovic forced 30-year-old Roger Federer to accept that time has caught up with him after producing a remarkable comeback (Folley, 2011).

This study aims to demonstrate that this particular metaphor can be contrasted with the reverse variant TIME AS AN OBJECT OF PURSUIT, in which people take the role of agents actively chasing time as a valuable object that is running away. It also points out that these metaphorical conceptualizations of time function as a pair of minimally differing variants of each other based on Figure-Ground reversal. Such contrasting metaphorical conceptions are termed by Lakoff and Johnson (1999, pp. 148–149) “duals” and the phenomenon as “duality”. Taking a broader look at the inconsistencies in the metaphorical conceptualizations of time that involve motion, suggests that time as the conceptual establishment expands beyond the natural physical dimension of the universe, on the one hand; and the socio-cultural dimension of experience created in the minds of a linguistic community, on the other, despite sharing a facet with both of them. Accordingly, this paper proposes to approach time as belonging to a separate category of the third kind, which according to the thesis put forward by Keller (1994), includes conceptual establishments resulting from human actions, but not of human design.
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2. A puzzle of the nature of time

For over two millennia the nature of time has been an on-going puzzle for Western thought (Le Poidevin, 2007, 2019; Markosian, 2014). Essays on the problem of time were written already by pre-Socratic philosophers, including Heraclitus and Parmenides. Certain aspects of time are discussed in essays of Pythagoras and Zeno of Elea (Barnes, 1982). Plato discusses time in Timaeus (360BC/2008) and Aristotle in Physics (350BC/1995). Starting from the Renaissance, philosophers, including Descartes, Newton, and Kant, systematically investigated the concepts of succession, duration, subjectivity, objectivity, and consciousness, which gradually acquired their present meanings and ultimately contributed to the development of the concept of psychological time (see Roeckelein, 2000, pp. 27–34, for a review). Later, 19th- and 20th-century philosophers, including Bergson (1889/2001), Husserl (1917/1991), and Heidegger (1927/2002) advanced the phenomenology of time.

At the turn of the 20th century, the problem of time experience had already been a subject of profound psychological analyses and experimentation (e.g. James, 1890; Mach, 1897). Since time is one of the most compelling and universal cognitive dimensions of experience, it is important throughout all fields of research, including linguistics. Different views on time and temporality in language are discussed in ample literature (e.g. Evans, 2003, 2013; Jaszczolt, 2009; Jaszczolt & de Saussure, 2013; Lewandowska-Tomaszczyk & Kosecki, 2014; Waliński, 2014, to mention but a few recent books) devoted to the perception and conceptions of time reflected in linguistic construal.

The problem of time perception is difficult to resolve because, in comparison to many other dimensions of experience, time is non-observable. Although numerous psychological studies have demonstrated that the experience of time is subject to inter- and intra-individual variability, after over 125 years of research, psychology has not yet distinguished a definitive sensory system responsible for perception and processing of time (Hancock and Block, 2012; Matthews & Meck, 2014). Neither has research in neuroscience found the neural basis for the processing of temporal intervals and the experience of duration (Wittmann, 2013).

Gibson (1975) ostensibly resolves the perplexing problem of time perception by pointing out that what we perceive are events in time, not time per se:

The perception of time is a puzzle of the same sort that the perception of space has been – an insoluble one. There is no such thing as the perception of time, but only the perception of events and locomotions (Gibson, 1975, p. 295).
Lakoff and Johnson (1999, p. 138) use this point of view to define time as a *metonymical phenomenon* relating to recurrence of events (see also Peirsman & Geeraerts, 2006; cf. Croft, 2006). Accordingly, our experience of time is always relative to our experience of events: events are located in time relative to other events, duration of events is measured relative to other events, and so forth. However, Evans (2003) argues that our conceptions of time may not relate as much to the awareness of change perceptible in events, but rather to the *subjective experience of duration*.¹ He asserts that “we actually experience the ‘passage’ of time whether there has been a change in the world-state or not” (Evans, 2003, p. 64). He emphasizes that the ability to experience duration is a prerequisite for the awareness of change, not vice-versa.

Irrespective of whether we experience the passage of time directly or our temporal experience is limited to merely observing the succession of events, the conceptualization of time takes place through mediation of other concepts that are more tangible to human senses. This involves elaborate mechanisms of cognitive representation that engage metaphors (see Fauconnier & Turner, 2008, for a discussion on how the concept of time invokes multiple complex conceptual networks).

## 3. Metaphorical conceptions of time

Among various models proposed to specify how a combination of different concepts yields metaphoric meaning, arguably the most influential has been the *conceptual metaphor framework* proposed by Lakoff and Johnson (1980, 1999; Lakoff, 1993). They define the essence of metaphor as “understanding and experiencing one kind of thing in terms of another” (Lakoff & Johnson, 1980, p. 5). According to their proposal, the creation and understanding of metaphorical language is mediated by correspondences that structure mental representations of concepts:

> Many aspects of our experience cannot be clearly delineated in terms of the naturally emergent dimensions of our experience. This is typically the case for human emotions, abstract concepts, mental activity, time, work, human institutions, social practices, etc. [...] Though most of these can be experienced directly, none of them can be fully comprehended on their own terms. Instead, we must understand them in terms of other entities and experiences, typically other kinds of entities and experiences (Lakoff & Johnson, 1980, p. 177).

Although the theory has undergone various modifications and updates since its original conception (see Gibbs, 2017; Ruiz de Mendoza Ibáñez & Pérez
Hernández, 2011, for reviews), the conceptual metaphor can be defined in a nutshell as a conceptual mapping, i.e. a set of correspondences between two conceptual domains in which a previously stored conceptual representation of one cognitive model is used to provide a structured understanding of another. The source domain is less abstract, i.e. more accessible to perception, than the target domain. Only a part of the source domain is mapped onto the target, and only a part of the target domain is involved in the mapping because one concept cannot be the same as another.

Lakoff and Johnson (1999, p. 52) argue that generally time is conceptualized by unconscious cognitive mechanisms through perceptual and motor experience in the concrete domain of space as the TIME AS MOTION metaphor, which includes two major variants: motion of objects and motion along a path. The metaphorical conceptualization of time as motion along the front/back axis results in MOVING TIME and MOVING OBSERVER metaphors. With the MOVING TIME metaphor (Lakoff & Johnson, 1999, pp. 141–144), we conceive of ourselves as stationary, with events approaching us from the future, e.g. the coming weeks, the deadline is approaching, etc. With the MOVING OBSERVER metaphor (Lakoff & Johnson, 1999, pp. 145–148), time is conceived of as a stationary landscape, along which we are moving, encountering events as we proceed, e.g. we are approaching the deadline, leave your childhood behind, etc. Additionally, Moore (2006, 2014) points out that there is a third, largely overlooked type of TIME AS MOTION metaphor that relates two times to each other independently of the ego’s perspective. Instead of using a deictic reference to the ego, it locates a particular time relative to another time. In that metaphor, time is conceptualized as being in an unchanging relationship of sequence in which the intervals between times do not change (see also McTaggart, 1908; Jaszczyk, 2009).

Another common conceptualization of time involves a separate variant of the MOVING TIME metaphor, which is called TIME-SUBSTANCE VARIATION (Lakoff & Johnson, 1999, p. 144). In this metaphor, the passage of time is conceptualized in terms of a common linearly moving substance, typically as a river. Consequently, we frequently speak of the flow of time. Since substance can be measured, we conceptualize the duration of time in terms of the amount of substance, e.g. a lot of time, a little time, no time at all, etc.

Yet another prevalent conceptualization of time embraces TIME AS A RESOURCE and TIME AS MONEY metaphors (Lakoff & Johnson, 1980, pp. 7–9; 1999, pp. 161–164; Evans, 2003, Ch. 14). They impose an outlook in which time is used in manners similar to how we use money and valuable resources in general, hence it can be spent, lost, wasted, or borrowed, etc.
This metaphor, however, belongs to the category of socio-cultural constructs, rather than phenomenologically universal aspects of human cognition (see Kövecses, 2005) because it does not appear in the languages of non-industrialized cultures, such as Inari Saami, an indigenous language spoken in Northern Finland (Idström, 2010) or Pirahã, an indigenous language of a hunter-gatherer Amazonian tribe in Brazil (Everett, 2005). Instead, those cultures tend to associate the concept of time with changes observable in nature.

Moreover, Lakoff and Turner (1989, pp. 35–43, 73–79; see also Kövecses, 2010, pp. 55–56) discuss common conceptualizations of time based on the TIME AS A CHANGER metaphor (in more specific variants such as DESTROYER, DEVOURER, REAPER, EVALUATOR, HEALER, THIEF), where time is personified as an entity largely independent of events it influences. Kövecses (2010, p. 55) follows Lakoff and Turner (1989, pp. 34–46) to argue that time is conceptualized using these particular agents because of the relation to other metaphors embracing concepts of time indirectly, such as life and death. Accordingly, time is conceptualized as a THIEF that steals the precious possession of life, and as a REAPER that kills people. Evans (2003, Ch. 12) argues that the personification represents a separate sense of time. In this sense, which he labels Agentive Sense, time is conceived not just as an entity serving to manifest change but as a causal agent of change that appears to be actively involved in the occurrence of specific events.

This study discusses the metaphorical personification of TIME AS A PURSUER and demonstrates that it contrasts with the reverse variant TIME AS AN OBJECT OF PURSUIT, in which people take the role of agents actively chasing time as a valuable object. The discussion is conducted from the perspective of data found in the British National Corpus (henceforth, the BNC), 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 (see www.natcorp.ox.ac.uk for more information). Since its completion the BNC has been used by researchers in a variety of contexts, including studies on conceptual metaphors (e.g. Fabiszak & Kaszubski, 2006; Trojszczak, 2019).

4. Cognitive corpus-based approach to metaphor

Grounding research on the conceptual metaphor in corpus data has been advocated by Deignan (1999, 2005, 2008), who points out that “a computerized corpus can enable the researcher to detect patterns of usage more quickly than either the use of intuition or the analysis of individual texts”
Inconsistencies in temporal metaphors: Is time a phenomenon... (Deignan, 1999, p. 178). She adds that by using empirical language data in researching metaphors we get access to reliable information about the frequency of metaphorical senses, which makes observations more objective. Since one of the most significant objections against the conceptual metaphor research has been overreliance on decontextualized examples, the application of corpus data in cognitive semantic studies provides for an increased inter-subjectivity of research and allows one to accept research results with greater confidence (Fabiszak & Konat, 2013).

This study approaches the problem of metaphorical conceptions of time from the perspective of cognitive corpus-based approach to language study, which brings together the descriptive framework of cognitive linguistics (Croft & Cruse, 2004) with the methodological workbench of corpus linguistics (McEnery & Hardie, 2012). From an array of different strategies that can be used for extracting linguistic expressions that reflect conceptual metaphorical mappings from corpora (see Stefanowitsch, 2006, for a review), this study combines searching for source domain vocabulary with searching for sentences containing lexical items from the target domain. More specifically, the examination was implemented by looking for expressions in which verbs relating to the concept of pursuit, as the conceptual source domain, either precede or follow lexemes used to refer to time, as the metaphorical target domain investigated in this study.

Eight verbs relating to the activity of pursuit were selected for analysis, i.e. catch, chase, hurry, press, prompt, pursue, race, and urge. They were used in queries in their 1st and 3rd person present, past, and participial forms, e.g. pursue, pursues, pursued, pursuing, to account for a variety of linguistic expressions. Selecting suitable lexical items from the target domain followed observations (Evans, 2003; Langacker, 2012) that time functions in language in several different manners. On the one hand, it is an abstract entity expressed by a mass noun, e.g. much time, enough time, more time, etc., but also appears as a bounded entity in complex expressions that designate a specific point in time, e.g. instant, moment, etc., or an interval of time, e.g. period, span of time, length of time, etc. On the other hand, there are also numerous expressions that designate temporal points or intervals indirectly. They include both common nouns like minute, hour, day, week, etc. and proper nouns like Friday, March, and 2011, which are derived from the clock and calendar as devices used to distinguish temporal locations (see Hutchins, 2005; Williams, 2004). For this reason, apart from the lexeme time, eight additional lexemes used to refer to time, i.e. deadline, hour, interval, period, season, span, spell, and term were selected for investigation in their singular and plural forms.
The search was implemented with proximity queries (Bernard & Griffin, 2009). They allow for searching with a slope value, which specifies how far apart lexical items included in a query can be from one another to be still rendered as a result to the query. The lexical pattern used for the construction of queries can be summarized as follows:

**VERB OF PURSUIT + TIME NOUN; SLOPE = 3, PRESERVE ORDER = NO**

In this study, the proximity queries were implemented with the slope value of 3 and the preserve order option, which indicates whether the original order of query terms should be retained in results, was set to “No”. This pattern enables one to find both examples of time functioning as A PURSUER, e.g. “Time is catching up on us”, and those where time functions as AN OBJECT OF PURSUIT, e.g. “We need to catch up on lost time”, with a single query. Since both the range of verbs that can potentially be used to express the idea of pursuit and the range of nominal expressions that can potentially be used to refer to time is much broader, the above selection is far from being exhaustive but it was accepted as reasonably adequate for the purpose of this study.

Corpus queries based on the above lexical pattern returned 1222 matching concordance lines from the BNC. Since the search was implemented with a large value of slope, which increases the recall of the results at the expense of their precision, the resulting set had to be reviewed by hand to exclude matches sharing the linguistic pattern by coincidence. As a result, 83 examples were recognized as valid representations of temporal metaphors, with 24 representations of the TIME AS A PURSUER metaphor and 59 representations of the TIME AS AN OBJECT OF PURSUIT metaphor, respectively (see Waliński, in press, for more details).

5. Time as a PURSUER vs. OBJECT OF PURSUIT

In their guide to poetic metaphor, Lakoff and Turner (1989, p. 46) see the TIME AS A PURSUER metaphor as belonging to a composite of metaphors: EVENTS ARE ACTIONS, TIME MOVES, and LIFE IS A JOURNEY. They describe it as follows:

As we move along life’s path trying to achieve our goals in life (which are metaphorically destinations on the path), we are racing against time. When time catches up to us, it stops us and we die: we can no longer reach any future events (Lakoff & Turner, 1989, p. 46).
Lakoff and Turner argue that in this particular metaphor, time is conceived of as a relentless, unnerving pursuer whom we try to avoid by running away from them. Yet, since the pursuer ultimately cannot be outrun, our efforts are bound to fail. They add that this metaphor functions in ordinary language as one of the principal ways of conceptualizing abstract concepts related to life, death, and time.

Evans (2003, Ch. 12) argues that in this sense time is conceptualized not just as an entity serving to manifest change, but as a causal agent of change that appears to be actively involved in the occurrence of specific events. He emphasizes that in comparison to Lakoff and Turner (1989) his position offers a somewhat different perspective. In his account, the personification imagery is licensed by virtue of a single distinct temporal lexical concept that is instantiated in semantic memory, rather than by virtue of antecedent metaphoric mappings underlying particular conceptualizations. Time cannot be fleshed out by just any kind of agent, but requires specific kinds of agents with a particular skill or ability to affect us and our environment (Evans, 2003, pp. 164–165).

The examples found in the BNC demonstrate that time conceptualized from the perspective of a pursuer presses us to take certain actions, as in “Time presses on, I must dash...” or “Right, shall we make a start because the time’s pressing on”. Typically, it prompts us to act quickly, as in “Name them quickly, for time presses”. Moreover, it may exert influence on the course of our actions, e.g. “Excuse me, but as you know, time presses; and I want to keep our question on the straightest line possible”. Sometimes, time pressure may affect the routes we take to destination points, e.g. “But if time presses, you can take a direct road from Frauenfeld”. Moreover, time forces us to take actions or decisions that we make under “pressing deadlines”, even if we are not entirely ready to take them, as in “decisions have to be made in conditions of acute uncertainty, under pressing deadlines”. The pressure of time can also serve as an excuse in a polite refusal, as in “That is kind of you, Dauntless said firmly, but time presses”.

Additional examples of time hurrying identified through Google Books Ngram Viewer show that in some scenarios time prompts actions related to professional activity, e.g. “But time hurries me on and I must take up the next higher curative agency” or personal relations, e.g. “But the time hurries me to his more private and personal relations”. However, most frequently, time as a pursuer tends to be conceived of as an unstoppable agent that brings about doom, decay, and death against our will, e.g. “Time hurries on in spite of all the reluctance of mankind”, “The impetuous current of
time hurries mortals, as in a sleep, into eternity”. In these expressions time hurries us to the inevitable end of our earthly existence.

Kövecses (2010, p. 56) emphasizes that a fundamental question arising in the context of personification is why we use particular kinds of persons as the source domains to understand time. A plausible answer to this question for the metaphor TIME AS A PURSUER is that, on the one hand, time prompts us to take decisions and actions relevant to our immediate course of life, which relates to the LIFE IS A JOURNEY metaphor. On the other hand, this metaphor reflects the universal destructive nature of time as a DESTROYER that causes inevitable aging, which ultimately leads to death.

However, this metaphorical conception of time is accompanied by the reverse variant in which time functions not as the agent but as an object of pursuit. In the TIME AS AN OBJECT OF PURSUIT metaphor, it is us who take on the role of agents actively chasing after time as an animate object that is running away. Removing time from the active position of a pursuer offers the potential for time to be conceptualized from a different perspective, in which it no longer has to be something unnerving, predestinate, and saturated in doom.

Looking at the TIME AS AN OBJECT OF PURSUIT metaphor through the lens of examples found in the BNC shows we can try to catch time for simple reasons. For instance, we catch time to get some sleep, as in “he climbed back into bed, hoping to catch another hour of sleep”. Sometimes, we catch up time to avoid being late, as in “She […] congratulated herself that she had caught up time, and was now only half an hour late”. Moreover, we can also catch up on old times, e.g. “It was then the moment for old colleagues to catch up on old times”, which means not to hurry but to reminisce with friends about the past. Interestingly, catching up on lost time seems to be possible not only for people, but also other living organisms, e.g. a bush, whose accelerated growth was found to be described as follows: “when it does get going it soon catches up on lost time”. Catching up with modern times and developments is also characteristic of communities, e.g. “the village has now caught up with modern times”, and social institutions, e.g. “schools will not so much be moving with the times as running to catch up”.

From the perspective of this metaphorical conceptualization, we can also take up a “race against time” (see Fauconnier & Turner, 2008, p. 63, for a discussion how the conceptualization of time as motion involves the aspect of racing through the association with speed). Although the odds of winning such a race may not look favorable, in some scenarios it can be won, e.g. “Technical staff […] won a race against time to get their set up for their presentation” or “[The team of] Wolves have won a race against time”.

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Moreover, a race against time can be taken up not only out of necessity, e.g. by doctors trying to save lives, but also out of ambition, e.g. by journalists “racing against deadlines” to deliver the latest scoop or by managers trying to complete their plans. Interestingly, racing against time can provide excitement, for instance in the computer assisted learning, e.g. “Often a race against time, such programs can generate much excitement”.

The examples found in the BNC indicate that the reversal of Figure and Ground lends some intriguing properties to time, which, at least in certain scenarios, can be conceptualized as something (or someone) that is desired, precious, worthy of pursuit. The pursuer is trying to move closer to a desired object until they catch it, which parallels, to some extent, the metaphor HAPPINESS IS A DESIRED OBJECT analyzed by Kövecses (2015, pp. 166–169) for the phrase “the pursuit of happiness” from the United States Declaration of Independence. Moreover, the TIME AS AN OBJECT OF PURSUIT appears to parallel another well-known metaphor: LIFE IS A JOURNEY. Given this metaphor, a successful life depends on reaching our immediate or more distant destinations, i.e. our life goals, which naturally involve time. For this reason, getting to one’s destination in life (considered a success) before it is too late involves gaining time, catching up on lost time, getting ahead of time, etc. This provides a partial overlap between the TIME AS AN OBJECT OF PURSUIT and the LIFE IS A JOURNEY metaphors, which both involve the idea of motion toward a desired object that is the destination of the pursuer. However, the corpus data indicate, that we do not tend to pursue time as an eternity (cf. the Matrix sense in Evans, 2003, Ch. 11), but rather some specific moments or occurrences in time (cf. the Moment and Event senses of time in Evans, 2003, Ch. 8, 10). These different senses seem to separate these two contrasting metaphorical conceptualizations.

Lakoff and Johnson (1999, pp. 148–149; see also Fauconnier & Turner, 2008, pp. 60–61) argue that it is common for metaphors to come in pairs that are Figure-Ground reversals of each other. They term such pairs as duals and the phenomenon as duality. The TIME AS A PURSUER metaphor contrasts with the TIME AS AN OBJECT OF PURSUIT metaphor, just as the MOVING TIME metaphor contrasts with the MOVING OBSERVER variant. What they all share in common is the passage of time conceptualized in terms of motion in space. Since Figure and Ground are not features of mind-independent reality but merely aspects of human cognition, a shift in their orientation is nothing unusual (Langacker, 2008, Ch. 3; Talmy, 2000, Ch. 5; Thiering, 2015, Ch. 3). Lakoff and Johnson (1999, Ch. 10–11) argue that the potential for shifting Figure and Ground occurs typically in metaphors relating to EVENT STRUCTURE (see also Lakoff, 1993).
6. Is time a phenomenon of the third kind?

The inconsistencies in the metaphorical conceptualizations of time that involve motion discussed in this study indicate that time can be conceptualized from different, outright opposite perspectives. In the TIME AS A PURSUER metaphor time is conceptualized as an agent capable of endless pursuit of people, which cannot be outrun to avoid ageing and death. In contrast, time conceptualized as AN OBJECT OF PURSUIT can, at least in some scenarios, be caught up with, e.g. to meet deadlines, attain objectives, fulfill ambitions, etc., and even overtaken, which is exemplified by such sentences as “we are a little ahead of time, we’re certainly gonna complete the business” (found in the BNC).

In more general terms, the contrast between the temporal metaphors that form the above discussed duals suggests that time could be approached as a separate conceptual category. According to the thesis originally put forward by Keller (1994) with reference to language change, the classical dichotomic division between natural phenomena and cultural artifacts should be replaced with the trichotomy incorporating phenomena of the third kind, which are conceptual establishments resulting from unintentional human activity. Keller (1994) observes that an object, in the widest sense, can come into being either (A) as a result of human actions or (B) can be man-made as a result of human intentions. The second condition (B) naturally implies (A), but the first one (A) does not necessarily imply (B). It means that while in most cases of linguistic construal both criteria apply simultaneously, sometimes we deal with entities that came into existence as a result of human activity, but not by human design. Therefore, in the linguistic description we deal with: (A) natural entities, which are not the result of human actions and not the goal of their intentions (e.g. the mountains, the weather); (B) cultural artifacts, which are the result of human actions and the goal of their intentions (e.g. a cake, Esperanto); (C) phenomena of the third kind, which are the result of human actions but not the goal of their intentions (e.g. language, monetary inflation). Despite the fact that the phenomena of the third kind share a criterion with each of the other categories, they are neither natural phenomena nor cultural artifacts. This seems to be the case with the concept of time, which, as noticed by St. Augustine in Book XI of his Confessions (398AD/1978), is created in the human mind by memory and anticipation. On the one hand, the creation of time in the human mind to reflect changes occurring relentlessly in the surroundings is inescapable. On the other hand, the conceptual creation of time is not determined intentionally.
by humans since the development of time conceptions has occurred independent of the will of an individual.

7. Conclusions

Extending Keller’s thesis to time as a phenomenon of the third kind offers the potential to provide a solution to what cognitive linguists have been trying to achieve for the past 35 years: to establish a conception of time which does justice to time in language, without reducing it to a material entity (Szwedek, 2009) or evading it as an immaterial dynamic process subject to eternal change (Galton, 2011).

To elaborate, Szwedek (2009) proposes a perspective on metaphor which views the conceptualization of abstract concepts as objectification, in terms of concrete entities. Since time is frequently confused with events occurring in time, it seems that we tend to conceptualize time in terms of material entities, which are directly accessible to our senses. Accordingly, Szwedek (2009) questions metaphorical schemas viewing time as space, motion and other non-physical entities. He argues that instead of the TIME AS SPACE metaphor we should consider the TIME AS AN OBJECT (IN SPACE) metaphor, and instead of the TIME AS MOTION metaphor we should consider the TIME AS AN OBJECT (IN MOTION) metaphor. Reducing conceptualizations of time to a single interpretation of the TIME AS AN OBJECT metaphor enables us to eliminate the inconsistencies in the metaphorical conceptualizations of time that involve motion within the framework of conceptual metaphor theory.

At the same time, a contrasting position on metaphorical conceptions of time is proposed by Galton (2011), who argues that spatial metaphors of time can never do justice to the nature of time as a basic feature of human experience. Galton points out that all temporal metaphors take some kind of change as their source, which means that they depend on the fundamental feature of temporal transience. He adds that transience can be described as fleetingness, i.e. the idea that we only experience a time at the time we are experiencing it. Any given moment only occurs once, at that very moment of time, and any given time is only present when it is that time. We say “What’s done is done” because it is impossible for us to revisit the past. It is also reflected in phrases such as “You only live once”, “Time and tide wait for no man”, etc. Galton argues that without this particular attribute, time would be just another static dimension, and we would have a universe in which there is no change.
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It seems that the above-mentioned models mark two opposite ends on a spectrum of views on the conceptualization of time. Szwedek’s theory of objectification attempts to reduce conceptions of time to material entities that can be captured directly through the senses because of their tangibility. In contrast, Galton’s position of temporal transience lays emphasis on time as an immaterial dynamic process that relentlessly escapes sensory perception, and therefore can only be captured indirectly through changes of states. Approaching time as a phenomenon of the third kind offers a solution to escape a fundamental problem deriving from the dichotomy that divides the world exclusively into two kinds of phenomena without reducing time to a material entity or evading it as an immaterial dynamic process subject to eternal change.

Acknowledgments

I would like to thank Barbara Lewandowska-Tomaszczyk for pointing me to Keller’s thesis on phenomena of the third kind.

NOTES

1 In situations of relative sensory-deprivation, e.g. in windowless, soundproof chambers, or caves deep down in the ground, subjects of psychological experiments were found to be still aware of the passage of time (Rasmussen, 1973/2017).

2 Apart from Moving Time and Moving Observer (Lakoff & Johnson, 1999), there are several alternative nomenclatures used in the context of metaphorical mappings of time along the front/back axis. Earlier works (e.g. Clark, 1973) refer to Moving Time and Moving Ego metaphors. Other researchers (e.g. Boroditsky, 2000) call them Time-moving and Ego-moving metaphors, respectively.

3 Limitations of the metaphorical conceptualization of time as a river that flows independent of our relation to it were discussed by Merleau-Ponty (1945/1962, pp. 477–478), who points out that we cannot “observe” time as it goes by: “Time presupposes a view of time. It is, therefore, not like a river, not a flowing substance. The fact that the metaphor based on this comparison has persisted from the time of Heraclitus to our own day is explained by our surreptitiously putting into the river a witness of its course”. Smart (1949) argues that time conceptualized as a river is an illusion because if time flowed or passed, it would require a super-time to flow or pass in. He asks how fast time passes: “I am advancing through time at how many seconds per-? We might begin, and then we should have to stop. What could possibly fill the blank?” (Smart, 1949, p. 485). It was replied to by Prior (1958, p. 244) in the following way: “Surely the answer to this question is obvious. I am now exactly a year older than I was a year ago... the rate of this change is one time-unit per time-unit”. This discussion still has not reached a final settlement (see Skow, 2010, for a review).
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REFERENCES

Allwood, J. (2002). Language and time. Publications of the Department of General Linguistics of the University of Tartu, Finland, 3, 1–8.

Aristotle. (350BC/1995). Physics [written c. 350BC]. In J. Barnes (Ed.), The complete works of Aristotle, Vols. 1–2. Princeton, NJ: Princeton University Press.

Augustine, St. (398AD/1978). Confessions: Saint Augustine [First written in Latin in 398AD]. (R. S. Pine-Coffin, Trans.). Harmondsworth: Penguin Books.

Barnes, J. (1982). The presocratic philosophers. London: Routledge & Kegan Paul.

Bergson, H. (1889/2001). Time and free will: An essay on the immediate data of consciousness [First published in 1889]. (F. L. Pogson, Trans.). New York: Dover.

Boroditsky, L. (2000). Metaphoric structuring: Understanding time through spatial metaphors. Cognition, 75(1), 1–28. http://doi.org/10.1016/S0010-0277(99)0073-6

Boroditsky, L. (2011). How languages construct time. In S. Dehaene & E. M. Brannon (Eds.), Space, time and number in the brain (pp. 333–341). London: Academic Press.

Clark, H. H. (1973). Space, time, semantics, and the child. In T. E. Moore (Ed.), Cognitive development and the acquisition of language (pp. 27–63). New York: Academic Press.

Croft, W. (2006). On explaining metonymy: Comment on Peirsman and Geeraerts, “Metonymy as a prototypical category”. Cognitive Linguistics, 17(3), 317–326. doi: 10.1515/COG.2006.008

Croft, W., & Cruse, D. A. (2004). Cognitive Linguistics. Cambridge: Cambridge University Press.

Deignan, A. (1999). Corpus-based research into metaphor. In L. Cameron & G. Low (Eds.), Researching and applying metaphor (pp. 177–199). Cambridge: Cambridge University Press.

Deignan, A. (2005). Metaphor and corpus linguistics. Amsterdam: John Benjamins.

Deignan, A. (2008). Corpus linguistics and metaphor. In R. W. Gibbs (Ed.), The Cambridge handbook of metaphor and thought (pp. 280–294). Cambridge: Cambridge University Press.

Evans, V. (2003). The structure of time: Language, meaning and temporal cognition. Amsterdam: John Benjamins.

Evans, V. (2013). Language and time: A Cognitive Linguistics approach. Cambridge: Cambridge University Press.

Everett, D. L. (2005). Cultural constraints on grammar and cognition in Pirahã: Another look at the design features of human language. Current Anthropology, 46(4), 621–646.
Jacek Tadeusz Waliński

Fabiszak, M., & Kaszubski, P. (2006). Studying metaphor with the BNC. Poznań Studies in Contemporary Linguistics, 41, 111–129.

Fabiszak, M., & Konat, B. (2013). Zastosowanie korpusów językowych w językoznawstwie kognitywnym. In P. Stalmaszczyk (Ed.), Metodologie językoznawstwa. Ewolucja języka. Ewolucja teorii językoznawczych (pp. 131–142). Łódź, Poland: Wydawnictwo Uniwersytetu Łódzkiego.

Fauconnier, G., & Turner, M. (2008). Rethinking metaphor. In R. W. Gibbs (Ed.), The Cambridge handbook of metaphor and thought (pp. 53–66). Cambridge: Cambridge University Press.

Gibbs, R. W. (2017). Metaphor wars: Conceptual metaphors in human life. Cambridge: Cambridge University Press.

Gibson, J. J. (1975). Events are perceivable but time is not. In J. T. Fraser & N. Lawrence (Eds.), The study of time II: Proceedings of the Second Conference of the International Society for the Study of Time (pp. 295–301). Berlin: Springer.

Hancock, P. A., & Block, R. A. (2012). The psychology of time: A view backward and forward. American Journal of Psychology, 125(3), 267–274.

Heidegger, M. (1927/2002). Being and time [First published in 1927]. (J. Macquarrie & E. Robinson, Trans.). New York: Harper.

Husserl, E. (1917/1991). On the phenomenology of the consciousness of internal time (1893–1917) [Original title Zur Phänomenologie des inneren Zeitbewusstseins]. (J. B. Brough, Trans.). Dordrecht, The Netherlands: Kluwer Academic Publishers.

Hutchins, E. (2005). Material anchors for conceptual blends. Journal of Pragmatics, 37(10), 1555–1577. doi: 10.1016/j.pragma.2004.06.008

Idström, A. (2010). What Inari Saami idioms reveal about the time concept of the indigenous people of Inari. Yearbook of Phraseology, 2010, 159–178. doi: 10.1515/978311022623.1.159

James, W. (1890). The Principles of psychology (Vols. 1–2). New York: Henry Holt.

Jaszczolt, K. M. (2009). Representing time: An essay on temporality as modality. Oxford: Oxford University Press.

Jaszczolt, K. M. (2012). Cross-linguistic differences in expressing time and universal principles of utterance interpretation. In L. Filipović & K. M. Jaszczolt (Eds.), Space and time in languages and cultures: Linguistic diversity (pp. 95–121). Amsterdham: John Benjamins.

Jaszczolt, K. M., & De Saussure, L. (Eds.). (2013). Time: Language, cognition, and reality. Oxford: Oxford University Press.

Keller, R. (1994). On language change: The invisible hand in language. London: Routledge.
Inconsistencies in temporal metaphors: Is time a phenomenon...

Kövecses, Z. (2005). *Metaphor in culture: Universality and variation*. Cambridge: Cambridge University Press.

Kövecses, Z. (2010). *Metaphor: A practical introduction* (2nd ed.) New York: Oxford University Press.

Kövecses, Z. (2015). *Where metaphors come from: Reconsidering context in metaphor*. New York: Oxford University Press.

Lakoff, G. (1993). The contemporary theory of metaphor. In A. Ortony (Ed.), *Metaphor and thought* (2nd ed.) (pp. 202–251). Cambridge: Cambridge University Press.

Lakoff, G., & Johnson, M. (1980). *Metaphors we live by*. Chicago: University of Chicago Press.

Lakoff, G., & Johnson, M. (1999). *Philosophy in the flesh: The embodied mind and its challenge to western thought*. 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.

Landes, D. S. (2000). *Revolution in time: Clocks and the making of the modern world* (rev. and enl. ed.). Cambridge, MA: Harvard University Press.

Langacker, R. W. (2008). *Cognitive grammar: A basic introduction*. Oxford: Oxford University Press.

Langacker, R. W. (2012). Linguistic manifestations of the space-time (dis)analogy. In L. Filipović & K. M. Jaszczolt (Eds.), *Space and time in languages and cultures: Language, culture, and cognition* (pp. 191–215). Amsterdam: John Benjamins.

Le Poidevin, R. (2007). *The images of time: An essay on temporal representation*. Oxford: Oxford University Press.

Le Poidevin, R. (2019). The experience and perception of time. In E. N. Zalta, (Ed.), *The Stanford encyclopedia of philosophy*. Stanford, CA: Stanford University. Retrieved from https://plato.stanford.edu/archives/sum2019/entries/time-experience/

Lewandowska-Tomaszczyk, B. (2014). Time and time experience in language. In B. Lewandowska-Tomaszczyk & K. Kosecki (Eds.), *Time and temporality in language and human experience* (pp. 19–44). Frankfurt am Main: Peter Lang.

Lewandowska-Tomaszczyk, B., & Kosecki, K. (Eds.). (2014). *Time and temporality in language and human experience*. Frankfurt am Main: Peter Lang.

Mach, E. (1897). *Contributions to the analysis of the sensations* [First published in 1886]. (C. M. Williams, Trans.). Chicago: Open Court.

Markosian, N. (2014). Time. In E. N. Zalta, (Ed.) *The Stanford encyclopedia of philosophy*. Stanford, CA: Stanford University. Retrieved from http://plato.stanford.edu/archives/spr2014/entries/time/
Matthews, W. J., & Meck, W. H. (2014). Time perception: the bad news and the good. Wiley Interdisciplinary Reviews: Cognitive Science, 5(4), 429–446. doi: 10.1002/wcs.1298

McEnery, T., & Hardie, A. (2012). Corpus linguistics: Method, theory and practice. Cambridge: Cambridge University Press.

McTaggart, J. E. (1908). The unreality of time. Mind, 17(4), 457–474.

Merleau-Ponty, M. (1945/1962). Phenomenology of perception [First published in 1945]. (C. Smith, Trans.). New York: Routledge & Kegan Paul.

Moore, K. E. (2006). Space-to-time mappings and temporal concepts. Cognitive Linguistics, 17(2), 199–244. doi: 10.1515/COG.2006.005

Moore, K. E. (2014). The spatial language of time: Metaphor, metonymy, and frames of reference. Amsterdam: John Benjamins.

Peirsman, Y., & Geeraerts, D. (2006). Metonymy as a prototypical category. Cognitive Linguistics, 17(3), 269–316. doi: 10.1515/COG.2006.007

Plato. (360BC/2008). Timaeus and Critias [written c. 360 BC]. (R. Waterfield, Trans.). Oxford: Oxford University Press.

Prior, A. N. (1958). Time after time. Mind, 68(271), 244–246. doi: 10.1093/mind/LXVII.266.244

Radden, G. (2004). The metaphor TIME AS SPACE across languages. In N. Bau-marten, C. Böttinger, M. Motz & J. Probst (Eds.), Übersetzen, Interkulturelle Kommunikation, Spracherwerb und Sprachvermittlung – das Leben mit mehreren Sprachen: Festschrift für Juliane House zum 60. Geburtstag (pp. 225–238). Bochum, Germany: AKS-Verlag.

Rasmussen, J. E. (Ed.). (1973/2017). Man in isolation and confinement [First published in 1973]. New York: Routledge.

Roeckelein, J. E. (2000). The concept of time in psychology: A resource book and annotated bibliography. Westport, CT: Greenwood Press.

Ruiz de Mendoza Ibáñez, F. J., & Barreras Gómez, M. A. (2015). Time and cognition in Marvell’s “To His Coy Mistress”. Cognitive Semantics, 1(2), 241–260. doi: 10.1163/23526416-00102004

Ruiz de Mendoza Ibáñez, F. J., & Pérez Hernández, L. (2011). The contemporary theory of metaphor: Myths, developments and challenges. Metaphor and Symbol, 26(3), 161–185. doi: 10.1080/10926488.2011.583189

Skow, B. (2010). On the meaning of the question “How fast does time pass?” Philosophical Studies, 155(3), 325–344. doi: 10.1007/s11108-010-9575-3

Smart, J. J. C. (1949). The river of time. Mind, 58(232), 483–494. doi: 10.1093/mind/LVIII.232.483

Stefanowitsch, A. (2006). Corpus-based approaches to metaphor and metonymy. In A. Stefanowitsch & S. T. Gries (Eds.), Corpus-based approaches to metaphor and metonymy (pp. 1–16). Berlin: Mouton de Gruyter.
Inconsistencies in temporal metaphors: Is time a phenomenon...

Szwedek, A. (2009). Conceptualization of space and time. In P. Łobacz, W. Zabrocki & P. Nowak (Eds.), Language, science and culture: Essays in honor of Professor Jerzy Bańczerowski on the occasion of his 70th birthday (pp. 317–333). Poznań, Poland: Wydawnictwo Naukowe UAM.

Talmy, L. (2000). Toward a cognitive semantics, vol. 1: Concept structuring systems. Cambridge, MA: MIT Press.

Thiering, M. (2015). Spatial semiotics and spatial mental models: Figure-ground asymmetries in language. Berlin: Mouton de Gruyter.

Trojszczak, M. (2019). Grounding mental metaphors in touch: A corpus-based study of English and Polish. In L. J. Speed, C. O’Meara, L. San Roque & A. Majid (Eds.), Converging evidence in language and communication research (pp. 209–230). Amsterdan: John Benjamins.

Waliński, J. T. (2014). Complementarity of space and time in distance representations: A cognitive corpus-based study (2nd ed.). Łódź, Poland: Łódź University Press.

Waliński, J. T. (in press). Duality of temporal metaphors: Time as a pursuer vs. object of pursuit. Research in Language.

Williams, R. F. (2004). Making meaning from a clock: Material artifacts and conceptual blending in time-telling instruction. (Ph.D. Dissertation). University of California, San Diego.

Wittmann, M. (2013). The inner sense of time: How the brain creates a representation of duration. Nature Reviews Neuroscience, 14(3), 217–223. doi: 10.1038/nrn3452

Literary and journalistic texts

Folley, M. (2011, September 10). What a Djoker! Novak comes through epic semi-final after Federer blows his big chance. Mail Online. Retrieved from www.dailymail.co.uk/sport/tennis/article-2036060/What-Djoker-Novak-comes-epic-semi-final-Federer-blows-big-chance.html

Marvell, A. (1681/1936). To His Coy Mistress [First published in 1681]. In A. Quiller-Couch (Ed.), The Oxford book of English verse, 1250–1900 (pp. 387–388). Oxford: Clarendon Press.

Corpora and resources

British National Corpus. (2001). [World Edition] Available from OUCS at: http://www.natcorp.ox.ac.uk

Google Books Ngram Viewer. (2017). Available at: https://books.google.com/ngrams

Slope Q. (2012). A part-of-speech-sensitive concordancer with support for proximity queries for the British National Corpus. Łódź, Poland: University of Łódź.