Time conceptualisation:
A case study of the colourful future

JOANNA REDZIMSKA

Abstract

The following article discusses the phenomenon of time with reference to the colour domain. As it has been proved by a number of studies mentioned in the text, the phenomenon of time has been widely analysed from numerous perspectives; yet, the cognitive one is the most prominent and the most significant one for this work. As follows, the key idea for the discussion presented below is centred around the contribution of the colour domain as far as the conceptualisation of time is concerned. In order to prove the role of the colour domain for time conceptualisation, the analysis presented in the article is based on the concept of the future reference, which is exemplified by a comparative study between English and Polish corpus data. The major conclusion from the analysis is that although the colours used for conceptualisation of the future reference are rather limited in their representation, they are still responsible for modifying the qualitative grounds of time- namely they are responsible for introducing axiological aspects of time.

Keywords

Konceptualizacja czasu:
Studium przypadku barwnej przyszłości

Abstrakt

Niniejszy artykuł dotyczy zjawiska czasu w odniesieniu do domeny kolorów. Jak zostało udowodnione w pracach wymienionych poniżej, zjawisko czasu jest szeroko analizowane; jednakże, perspektywa kognitywna jest najbardziej dominującą i najbardziej znaczącą dla niniejszej pracy. Aby udowodnić wpływ domeny kolorów na konceptualizację czasu, analiza przedstawiona w tym tekście odnosi się do rozumienia przyszłości na podstawie badania korpusowego, w którym porównane zostały dane językowe z języka polskiego i języka angielskiego. Najważniejszym wnioskiem z w/w analizy jest fakt, iż reprezentacja kolorów używanych w konceptualizacji przyszłości nie jest liczna, natomiast w znacznej mierze kolory przyczyniają się do zmian jakościowych w konceptualizacji czasu- a mianowicie są one odpowiedzialne za wprowadzenie aspektów aksjologicznych.

Słowa kluczowe

konceptualizacja czasu, domena kolorów, analiza korpusowa, aksjologia

> Of all the scientific intangibles that shape our lives, time is arguably the most elusive – and the most powerful. As formless as space and being, those other unseen realms of abstraction on which we are helplessly dependent, it nonetheless affects all material things [...]. Without it we could barely measure change, for most things that change on this Earth and in the universe happen in time and are governed by it. Stealthy, imperceptible, time makes its presence known by transforming our sense of it into sensation. For though we cannot see, touch, or hear time, we observe the regularity of what appears to be its passage in our seasons, in the orchestrated shift from dawn to dusk to dark, and in the aging of our bodies. We feel its pulsing beat in our hearts and hear its silence released in the precise ticking of a clock (Langone 2000: 7).

1. Introduction

As the above quotation presents, the phenomenon of time, being an invisible and omnipresent background for our life, has a significant influence on the way particular concepts are construed, perceived and interpreted. Among innumerable approaches that explain this phenomenon, the perspectives that are adopted focus on the psychological aspects of time (Husserl 1928, Waliński 2014), ego-based models or time-based models (Evans 2004, 2007)), metaphorical realisations (Lakoff and Johnson 1999), or philosophical ones (Łukasiewicz 1961, Oaklander 2011), to name only a few. As Lewandowska-Tomaszczyk (2016) points out, it is difficult to observe time in a direct way thus it is a natural thing to use different conceptual domains to provide frames for organising and understanding time references. The major focus of this work is to present how time is conceptualized by means of the conceptual domains of colours, with special attention paid to the future reference. Thus, the aim of this article is to contribute to research about tenseless time by addressing the following question: What does the construal of time reveal by means of the colour domain as far as time perception is concerned? In order to find an answer to this question, the concept of the future will be studied on the basis of a comparative study of data from English and Polish.

2. Time construal

The linguistic and semantic conceptualizations of time are very often presented as the discussion of time's passage (prototypically in the Western culture from the past to the future – thus, imposing a linear order of events). Such conceptualization is connected with both the flow of time as well as time units that, to a significant extent, are culturally conditioned. On the one hand, the discussion of time subsequently provokes the question of temporal horizons; on the other hand, it must touch

upon various conceptual representations by means of which time becomes a concept to access and cognize.

Since time has been a concept analysed and discussed from a number of perspectives, for the sake of this article only some of them have been selected. As far as the phenomenological approach is concerned, according to Husserl (1928), one should analyse time with reference to memories or expectations, thus the present, past or future references are properties of consciousness. Yet, Kastenbaum (1994) develops these ideas further and proposes that basic elements underlie time perspective which include:

(a) protension: the property explaining temporal extension by considering what will happen in the future;
(b) retrotension: the property explaining temporal extension by considering what happened in the past;
(c) density: the property that allows one to group together past or future events;
(d) coherence: the property based on the cognitive past-present-future organisation of time;
(e) directionality: the property that allows one to perceive movement towards the future.

The above mentioned properties signal that people impose boundaries on the flow of time, which, exemplified by a human life, is organised around past or present experiences as well as around the ones that are yet to come (which suggests also a psychological and sociological perspective). As Jaszczolt (2012) points out, many factors (including culture, society, history or geography) are emphasised by linguistic expressions presenting a temporal reference; however, these lexical representations are linked to the concepts of anticipating, remembering or simply experiencing. Further, Jaszczolt (2012) underlines that although the time construal may refer to real time (or not) and it may be culture-specific or universal, it may also consist either of primitive units or it may be perceived as an atomic whole. Nevertheless, Davies (2012: 11) claims that:

> The labels 'past' and 'future' may legitimately be applied to temporal directions, just as 'up' and 'down' may be applied to spatial directions, but talk of the past and the future is as meaningless as referring to the up and the down.

As given in the above quotation, labelling time reference is conditioned by the contextal and situational requirements that demand certain linguistic realisations. Yet, Davies (2012) finds no point in talking about the past or future. Nonetheless, following Łukasiewicz (1961), the present is real to the extent that it is actual and it exists here and now. The past then is perceived as real only if it influences the present (otherwise it is only a possibility) and the future is real on the condition that one can project into it or anticipate it from the present.

Another perspective, still more significant for the present work, is the one proposed by cognitive linguistics. Lakoff and Johnson (1999:138) highlight that in defining time we follow the metaphorical conceptualisation enhanced by metonymies, among which one can find: "successive iterations of a type of event stand for intervals of time". Additionally, they (Lakoff and Johnson, 1999:139) claim that "literal time is a matter of event comparison" where "most of our understanding of time is a metaphorical version of our understanding of motion in space". Thus, one of the most commonly applied mechanisms to conceptualize time is the use of spatial metaphorical schemas to present events or speakers as moving objects. Lakoff and Johnson (1999: 151) explain this conceptualisation in the following way:

> Every day we take part in 'motion-situations' - that is, we move relative to others and others move relative to us. We automatically correlate that motion (whether by us or by others) with those events that provide us with our sense of time, what we call 'time-defining events'. In short, we correlate time-defining events with motion […]. Thus, in a motion-situation, motion is correlated with time-defining events.

According to Evans (2004: 46-49), this correlation procedure is based on the mechanism of "experiential correlation" and "perceptual resemblance". As Marchetti (2007) explains, the former initiates conceptual associations because of correlations between two different kinds of experience, whereas the latter's function is to establish links with reference to the perceived resemblance and characteristics shared between the concepts. Further, Marchetti (2007) also highlights that this experiential correlation and perceptual resemblance are a starting point for context-dependent meanings which, expressed by particular lexical representations and by means of recurrence, serve as grounds for implicatures or situated references. Evans (2004:99-101) calls it "a pragmatic strengthening" since once certain implicature is by means of convention linked to a particular form, the sense that results from it can be applied in another context not necessarily related to the original one.

Additionally, Evans (2004: 31) points out that "temporality is a real and directly perceived subjective experience" that is paraphrased as a subjective sensory-motor phenomenon. In order to underpin this phenomenon, people use "perceptual moments" (Evans 2004: 22-27) which serve as an operational basis for the perceptual processing of time. The most significant role is ascribed by Evans (2004: 108) to *duration* which is defined as "the interval holding or extending between the two boundary (beginning and ending) events" and which, at the same time, reveals the primary durational nature of time.
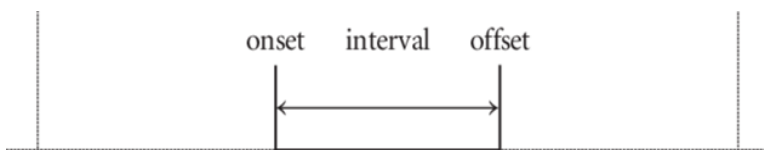

Figure 1
(adapted from Evans 2004)

As Figure 1 illustrates, the duration concept may serve as grounds for the conceptualisation of time, which is further supported by Evans (2004: 112) who claims that "it is our awareness of and ability to assess magnitude of duration which first and foremost allows us to distinguish past from present".

However, as far as the conceptualisation of time is concerned, Evans (2007: 733–734) links it with temporal cognition via both subjective and real temporal experiences. He (Evans 2007: 735) continues by stating that this subjective experience is connected with our ability to access and sense duration, simultaneity and points of time. Further, Evans (2007) proposes cognitive models for temporal cognition, namely the Moving Time Model and the Moving Ego Model. In the former, Evans (2007: 751) argues for a representation where the ego's position is correlated with the experience of the present and, at the same time, it functions as the reference point for other temporal locations of other temporal concepts (see Figure 2).
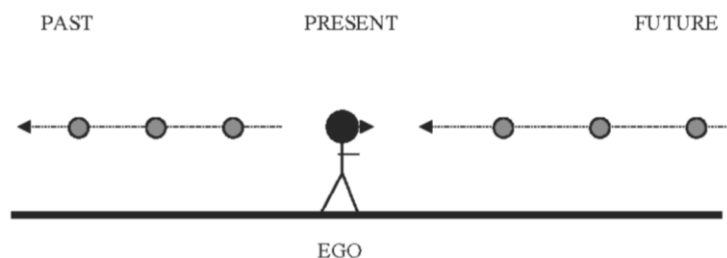

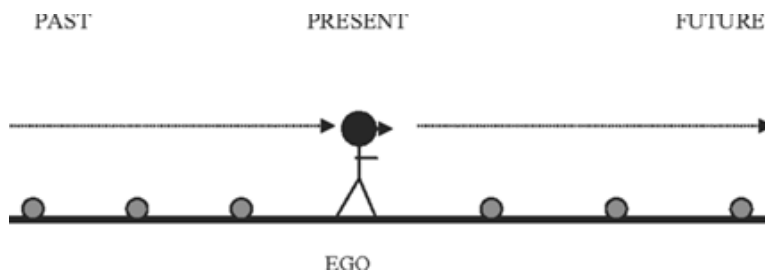**Figure 2**
(adapted from Evans 2007)

Figure 3
(adapted from Evans 2007)

In the Moving Ego Model, these are the temporal events that serve as locations, ergo it is only the ego that moves – see Figure 3 (Evans 2007: 753).

Another cognitive approach is exemplified by Radden and Dirven (2007: 304) who suggest that time and space are inseparable. They (Radden and Dirven 2007: 304) explain this mutual interdependence by relating it to absolute reference frames and relative frames (where reference objects relate relatively to physical space and objects). As follows, Radden and Dirven (2007: 307) state that what counts in our spatial cognition is the basic relationship between a thing and its measured property and this relationship is defined as the property of extent. In their opinion, extent means a static relationship (e.g length), a dynamic relationship (e.g distance made in the result of the motion) or a static relationship that can be recognised as dynamic (e.g. distance covered in metaphorically represented motion) (Radden and Dirven 2007:307).

Nevertheless, Jaszczolt (2009) advocates the view that the conceptualisation of time as well as physical time must be defined with reference to modality. In her opinion, if temporality is expressed, it presents a given degree of distancing from certainty, usually triggered by separating oneself from the here and now, with 'zero' degree of detachment for present experiences. Yet, the past will have its stronger or weaker representations, with the future or the present having strong or weak representations as well (frequently depending on evidence).

3. Adjectives

Bearing in mind that the research question for the present work focuses on collocations connected with the future in terms of colours, providing some general understanding of the lexical category of adjectives is justified. Since it has been a widely discussed topic from a number of perspectives, for the sake of this article the classification of adjectives presented by Hornby (1989) will be discussed in the following part. In his definition

of adjectives, he focuses on their function, namely on their fa-
cilitating the reconstruction of the naïve world by showing the
presence of reality in consciousness or organising realities in
the objective world. In the result, Hornby (1989) presents the
following classification of adjectives:

(1) adjectives connected with the perception by senses (visual,
    auditory, olfactory, taste, touch or all senses used together at
    one time);
(2) adjectives connected with the perception of time;
(3) adjectives connected with human ability;
(4) adjectives that are connected with emotional characteristics;
(5) adjectives connected with ethical, moral or psychological
    qualities of a person with reference to negative and positive
    evaluation;
(6) adjectives connected with abstract signs denoting abstract
    concepts;
(7) adjectives connected with the human state, the order of ob-
    jects in the real world or such subject matter that demands
    muscle tension or the result of such tension.

Without any doubt, the above classification reveals the concep-
tual/semantic fields that reflect human cognitive practices, es-
pecially their pragmatic value. What is meant by it is that, alt-
hough prototypically from a cognitive point of view, adjectives
are scanned summarily (Langacker 2008), they signify an eval-
uation component in accordance with the practical importance
namely by means of linking associative reasoning performed by
particular language users. Such language behaviour aims at
solving the question of the values and anti-values within a given
group, ergo enhancing the unity of this group. It should be noted
then that ethno-specific features of a language reflect not only
a certain worldview, but also the method of knowing it, thus
marking the relationship between language and thought. Also,
as Stanulewicz, Komorowska and Pawłowski (2014) point out,
the cultural elements touch upon colour symbolism which, in
turn, is represented by means of fixed phrases.

As far as the research question of the present work is concerned, it seems that adjectives representing colours to mark time characteristics and time horizons (undoubtedly by means of some metaphorical conceptualisations) fall under a few of these categories. Obviously they belong to the first category, since colour perception is a sensual experience. But clearly their function is that of adjectives from the second category, namely to help with perceiving and conceptualising time. As well as that, some axiological values are frequently attributed to colours, on the basis of cultural, psychological or linguistic features, so in this aspect they bear resemblance to group four and five of the above classification.

4.   Case study

Since the core interest of the present work is in revealing time conceptualisations by means of the colour domain, special attention will be paid to the way the future reference is represented.

As it has been shown above, the common conceptualization is via imposing temporal horizons with reference to subject-object-movement ideas. However, in this article the focus is not on establishing conceptualisations for time horizons but rather on revealing the function of colour modifiers in temporal expressions connected with the future. Additionally, it will be shown that depending on the particular conceptualizations, selected lexical representations carry axiological charge connected with time, making this concept lose its neutral status as far as its perception is concerned.

4.1. Methodology

In order to examine the lexical representations of collocations for the word *future*, Sketch Engine (available at https://app.sketchengine.eu) has been used. By means of this tool, the

following English corpora (accessed from January to March 2021) have been browsed:

(1)   British National Corpus (BNC);
(2)   British National Corpus (BNC) tagged with CLAWS;
(3)   Brexit Corpus;
(4)   British Web 2007 Corpus (ukWaC);
(5)   English Web 2018 Corpus (enTenTen2018);
(6)   British Academic Written English (BAWE) Corpus.

In order to see if certain conceptualisations of the future are language universal, the comparison has been made with the Polish word *przyszłość*, on the basis of the data included in Polish Web 2012 (plTenTen12, RFTagger).

Since the focus of the research is on the collocations connected with the *future* perception of time by means of colours, only the data where the *future* is modified by a number of adjectives (adjective predicate + future - Adj. N) have been taken into account. In the visualisations below, the bigger the word circle is, the more frequently it occurs in the corpus.
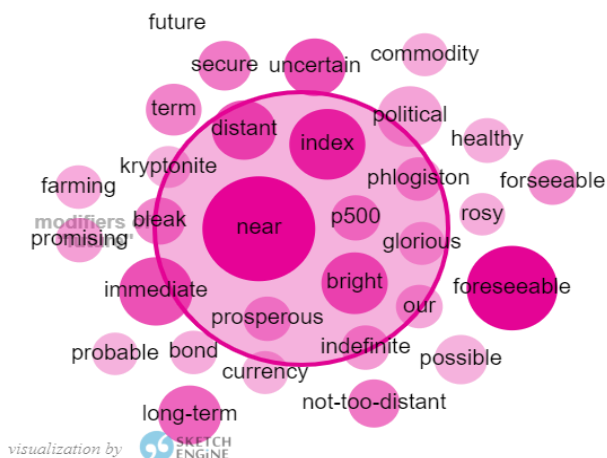
4.2. Visualisations
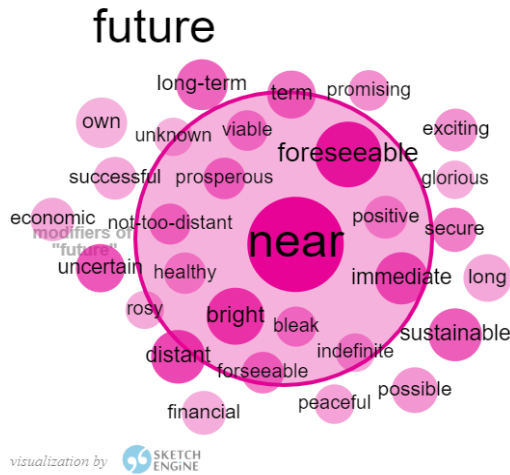

Figure 4
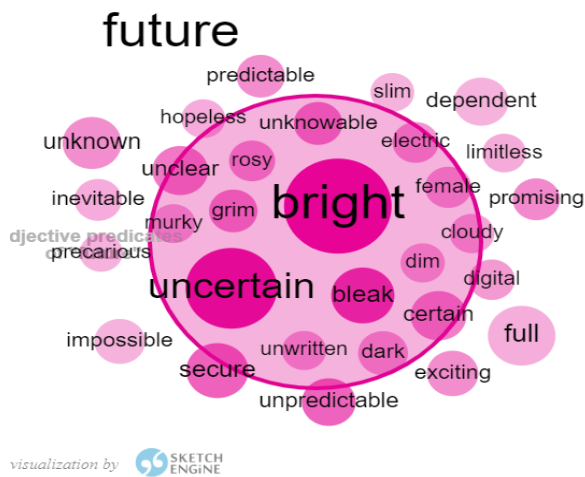British National Corpus (BNC)

Figure 5
British National Corpus (BNC) tagged with CLAWS

Figure 6
Brexit Corpus

Figure 7
British Web 2007 Corpus (ukWaC)

Figure 8
English Web 2018 Corpus (enTenTen2018)
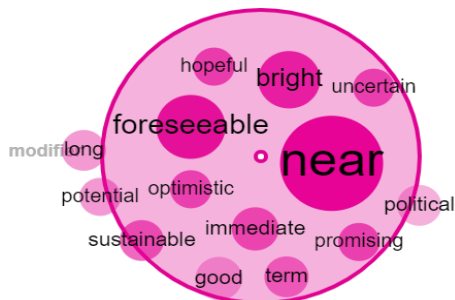
Figure 9
British Academic Written English (BAWE) Corpus

Figure 10
Polish Web 2012 (plTenTen12, RFTagger)

4.3. Data analysis/ interpretation

The above results confirm that the most frequently used conceptualisation of *future* is realised by means of the metaphorical perceptions of time in terms of the distance covered in space: for English, the adjective *near* is used in a large word circle in the BNC, the BNC tagged with CLAWS, the British Web 2007, and the British Academic Written English corpus. Other adjectives, appearing relatively often in the above data and modifying the future by means of distance relations are: *distant* and *not-too-distant*. However, a more interesting case concerns the adjective *foreseeable* because this modifier of future definitely refers to the group of adjectives where there is the use of senses in order to represent time reference – in other words, the future is metaphorically represented as an object (the process of reification) which can be seen in a way that the better the vision, the closer the time reference.

As far as the use of the colour domain in the conceptualisation of time is concerned, for the English corpora discussed above, the results prove that in the Brexit Corpus and in the English Web 2018 Corpus *future* is most of all *bright* (this adjective is also present in the other previously mentioned English corpora but its prominence is not as obvious). Other adjectives connected with colour perception and the future are *light*, *rosy*, *dark*, *bleak*, *gloomy* and *murky*. Except for *rosy* which bears some colour saturation – similar to pink, the rest of the adjectives are placed on the ends of the scale of light-dark. Yet, 'rosy' bears also another interpretation with reference to the future-namely it is frequently translated as 'promising'.

Taking into account the Polish Web 2012 corpus, the results are to a large extent similar to the ones for English. The adjective that metaphorically modifies *future (przyszłość)* the most often is *niedaleki (near)* and it exemplifies temporal horizons by means of the distance covered by a motion. Other instances of adjectives that support the spatial understanding of time relations in Polish are *bliski (close)*, *daleki (far)*, *odległy (distant)*,

nieodległy (not-too distant). Thus, similarly to English, Polish terms show that as far as space relations are used with reference to time, they are based on the same metaphorical understanding of the future as an object (the process of reification) that is located at some position ahead of the ego.

In addition, it should be noted that the application of the colour domain in Polish in shaping time reference is also similar to the English one. Namely, the most often used adjective that modifies the future in terms of colours is *świetlany,* which can be translated into English as *bright*, *luminous* or *of light.* There are also two more adjectives that are based on the colour perception, which are *jasny* (*light, bright*) and *niejasny (dim, faint).* One must remember as well that the Polish *niejasny* has another understanding of something not being clearly expressed. Undoubtedly, Polish and English share one more similarity as far as the use of colours for future time conceptualisation is concerned- the adjectives are placed on opposite ends of the light-dark scale, yet in Polish only this opposition is present. This Polish-English resemblance is also visible in the fixed phrase *widzieć przyszłość w czarnych barwach / to see the future in dark colours.*

A natural question that comes to mind is what colours tell us about time conceptualisation and understanding. In the opinion of the present author, the conceptualisation of time by means of colours is responsible for the qualitative change in the concept of time itself. To be more precise, the future reference of the concept of time by means of the light/ dark differentiation adds axiological value to this concept. As has already been mentioned, colours are frequently assigned a symbolic meaning. It is common knowledge that the cultural symbolism connected with the adjective *light* is that it is associated with positive values and the cultural symbolism connected with the adjective *dark* is negatively associated. Thus, when modifying the concept of the future time by means of the colour domain, the perception of future (and what follows the conceptualisation of these terms) is supplemented with the axiological charge, mostly positive or

negative as presented by the above data from English and Polish.

5. Conclusions

The above discussion of the concept of time is centred around the ideas by means of which the concept in question seems more tangible or simply more defined. As it has been presented in the theoretical part of this article, there are numerous approaches and perspectives that contribute to the explanation of this phenomenon; yet, for the sake of this discussion, only the ones that have most significantly contributed to the present reasoning have been selected. The research question assumed that attention should be paid to the colour domain which serves as a useful tool for the conceptualisation of the future reference. As has been proved by the analysis of data from English and Polish corpora, there are two dominant terms that mark colour distinctions, namely these are light and dark. Another significant concluding point refers to the fact that the role of the colour terms used for conceptualisation of the future temporal reference is to introduce axiological charge, ergo to enhance some of the culture-based symbolism of colours.

References

Davies, Paul. (2012). "That mysterious flow". *Scientific American Special* 21/1: 8–13.

Evans, Vyvyan (2004). *The Structure of Time. Language, Meaning and Temporal Cognition.* Amsterdam – Philadelphia: John Benjamins Publishing Company.

Evans, Vyvyan (2007). "How we conceptualize time: Language, meaning and temporal cognition". In: Vyvyan Evans, Benjamin K. Bergen, Jörg Zinken (eds.). *The Cognitive Linguistics Reader.* London – Oakville: Equinox Publishing Ltd., 733–765.

Hornby, Albert S. (1989). *Oxford Advanced Learner's Dictionary of Current English.* Oxford University Press.

Husserl, Edmund (1928). *Vorlesungen zur Phänomenologie des inneren Zeitbewusstseins*: *Jahrbuch für Philosophie und phänomenologische Forschung* IX. Halle: Max Niemeyer.

Husserl, Edmund (1991 [1928]). *Lectures on the Phenomenology of the Consciousness of Internal Time*. Trans. by J. B. Brough. In: *On the Phenomenology of the Consciousness of Internal Time (1893–1917)*. Part A. Dordrecht: Kluwer.

Jaszczolt, Katarzyna, M. (2009). *Representing Time: An Essay on Temporality as Modality*. Oxford: Oxford University Press.

Jaszczolt, Katarzyna M. (2012). "Cross-linguistic differences in expressing time and universal principles of utterance interpretation". In: Luna Filipović, Katarzyna M. Jaszczolt (eds.). *Space and Time in Languages and Cultures: Linguistic Diversity*. Amsterdam: John Benjamins, 95–121.

Kastenbaum, Robert (1994). "Time perspective". In: Raymond J. Corsini (ed.). *Encyclopedia of Psychology* 3. New York: John Wiley & Sons Inc.

Lakoff, George, Mark Johnson (1999). *Philosophy in the Flesh: The Embodied Mind and Its Challenge to Western Thought*. New York: Basic Books.

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

Langone, John (2000). *The Mystery of Time: Humanity's Quest for Order and Measure*. Washington, D.C.: National Geographic.

Lewandowka-Tomaszczyk, Barbara (2016). *Conceptualizations of Time*. Amsterdam: John Benjamins.

Marchetti, Giorgio (2007). "Time is energy: A hypothesis on the attentional origin of the conscious experience of time". Available at <www.mind-consciousness-language.com>. Accessed 1.04.2021.

Łukasiewicz, Jan (1961). "O determinizmie". In: J. Słupecki (ed.). *Jan Łukasiewicz: Z zagadnień logiki i filozofii. Pisma wybrane.* Warszawa: Państwowe Wydawnictwo Naukowe.

Łukasiewicz, Jan (1970 (1961]). "On determinism". Trans. Z. Jordan. In: L. Borkowski (ed.). *Jan Łukasiewicz: Selected Works*. Amsterdam: North-Holland, 110-28.

Oaklander, Nathan L. (2011). "Time and tense: Philosophical aspects". In: Keith Brown (ed.). *Encyclopedia of Language and Linguistics*. Second Edition. Vol. 12. Oxford: Elsevier, 554-557.

Radden, Günter, René Dirven (2007). *Cognitive English Grammar*. Amsterdam: John Benjamins Publishing Company.

Stanulewicz, Danuta, Ewa Komorowska, Adam Pawłowski (2014). "Axiological aspects of Polish colour vocabulary: A study of associations". In: Wendy Anderson, Carole P. Biggam, Carole Hough, Christian Kay (eds.). *Colour Studies: A Broad Spectrum*. Amsterdam – Philadelphia: John Benjamins Publishing Company, 258–272.

Waliński, Jacek Tadeusz (2014). "Reflection of temporal horizon in linguistic performance". *Procedia: Social and Behavioural Sciences* 126: 178–187. Available at <www.sciencedirect.com/science/article/pii/S1877042814019119>. Accessed 30.03.2021.

Joanna Redzimska
ORCID iD: 0000-0001-7837-9397
Uniwersytet Gdański
Instytut Anglistyki i Amerykanistyki
ul. Wita Stwosza 51
80-308 Gdańsk
Poland
joanna.redzimska@ug.edu.pl