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Space, time and transience

Abstract

Such a universal, yet abstract concept as time shows variation in metaphorical language. This research focuses on metaphors within the framework of the cognitive metaphor theory, investigating time through a contrastive, cross-linguistic approach in three satellite framed languages. By combining qualitative and quantitative methods, this study attempts to identify how time passes in language in a metaphorical context, through an empirical corpus-based study. The aim is to investigate how the spatialization and the transience of time surfaces in time metaphors through verbs in a sample of three languages, with a focus on the following aspects: motion through space as well as transience (Galton 2011: 701). Differences such as preference of spatialization or of transience without the spatial aspect are expected to be found.

Keywords: cognitive linguistics, corpus linguistics, conceptual metaphor theory, transience, spatialization, motion.

1 Introduction

We can agree that such abstract concepts as time are “difficult to define because they form part of the bedrock of our cognitive architecture” (Evans 2004: 8). For this reason, when we speak about the passing of time, we often rely on metaphor or metonymy, in fact it is not easy to talk about time without linking it to something more familiar and concrete. Time is therefore often connected with concepts such as money (Lakoff 1987: 210), an object (Evans 2004: 253), a moving object (Lakoff and Johnson 1980: 42) or even an entity that carries out actions or goes through change.

Time in language often appears as a dynamic object, a moving object or entity, as the corpus results suggest. This argument is supported not only by linguistic metaphors that express translational motion, but fictive motion and positional verbs too. Such results bring further evidence that there is “the propensity to represent an otherwise static concept in terms of action” (Talmy 2000a: 15), in this case time. This dynamic aspect of time is not always evident in the same way, and it can surface differently in the three languages, as the results suggest.

This research is based on methods of identifying linguistic and conceptual metaphors by gathering empirical data through corpus research. The metaphor identification method is based on the steps carried out by the Pragglejazz Group (2007). The corpus research is done by searching for verbs that are used with the node ‘time’ as a word (not a lemma), generally using a two-space span. This study focuses solely on the node word time (*idő* in Hungarian and *aika* in Finnish), and not others such as *day, morning, past, present, future* etc. However, *time* is

more frequent than any of these words in the corpus, therefore presumably also more pervasive in language.

When selecting verbs used with time in the corpora for a cross-linguistic analysis, those are chosen which express the passing of time, which are in most cases motion verbs, e.g. time passes, time goes by. The metaphors in each case contain a finite verb. In addition, in order to be considered relevant, only those metaphors are selected, which have a normalized frequency of a minimum of over 0.005 per million words. There are several reasons why this number is deemed to be suitable for the research. It is necessary to set a frequency, which allows the inclusion of rare, yet recurrent examples found in the corpus, yet which is high enough to exclude isolated occurrences that are not so important for the overall profile of time, as a conceptual metaphor. Furthermore the metaphor has to appear in a variety of contexts, not only one.

The corpus research is first carried out independently in each language, and the most relevant verbs are identified and selected before comparing them and rechecking the corpus for contrastive examples. While other research studies time in its entirety e.g., all temporal nouns, tense etc. (e.g., Huumo 2017), this research only analyzes the word time and verbs that it occurs with, because frequently quoted metaphors such as *We are approaching Christmas* or *Christmas is coming*, as well as the difference between Moving Ego and Moving Time metaphors have been already researched extensively (e.g., Lakoff & Johnson 1980, Kövecses 2005, Huumo 2017, Evans, 2013a, b etc.).

The metaphors are collected from *The Corpus of Contemporary American English*, *The Hungarian National Corpus (Magyar Nemzeti Szövegtár)*, and *The Finnish Language Bank (Kielipankki)*. The following subsections are selected and used for the research: 1. formal texts, which consist of various types of media, as well as academic or scientific texts; this type of source makes up 42.5% of the English, 55.9% of the Hungarian and 50,2% of the Finnish corpus; 2. informal texts, which are web based texts, e.g. blogs or social media, as well as spoken language; this makes up 43.8% of the English corpus, 36,2% of the Hungarian and 44.5% of the Finnish one; 3. literal texts, which constitute the smallest section, with 13,6% of the English, 7.7% of the Hungarian and 5.2% of the Finnish corpus. Since the size of the material varies, the quantitative analysis is based on normalized frequencies. Normalized frequency is a good way to compare frequencies across languages when the size of the corpora is different.

I have chosen American English, Hungarian and Finnish for the following reasons: first of all, they are all satellite-framed, and this is essential from several points of view: they can be compared on a common ground, second, verbs carry relevant information in these languages, as they possess a “larger and more diverse lexicon of manner verbs” (Slobin 1997: 458). As all three languages in this study are satellite-framed, it is expected that there is a complex collection of motion verbs in all of them, and thus there is a good chance that there will be differences in the way these verbs manifest in time metaphors. Secondly, research in cognitive linguistics often focuses on English, and it is spoken by a large number of people. It serves as a good ground for comparison contrasted with the other two languages, which are related. Hungarian and Finnish are less frequently researched than English in general, and exploring other languages besides English is relevant in order to avoid Anglo-centrism. Finnish metaphors have been researched to some extent for instance by Huumo (2017), and Hungarian metaphors extensively by Kövecses as well as Benczes and Ságvári (2018).

While the nature of the chosen corpora, *The Corpus of Contemporary American English*, *The Hungarian National Corpus (Magyar Nemzeti Szövegtár)* and *The Finnish Language Bank (Kielipankki)* as well as the nature of the three languages represent some challenges, a suitable common ground for comparison can be created by basing the research on normalized frequencies and on the premise that all three languages are satellite-framed.

The aims of the research are as follows: 1. identifying verbs that express the passing of time in metaphors, 2. establishing their raw and normalized frequencies, 3. identifying cognitive mechanisms that metaphors are based on, 4. interpreting differences and similarities based on theories of cognitive linguistics.

The hypothesis is that the dynamic aspect of time surfaces differently in the three languages. While time linked with motion and the spatial aspect are expected to be frequent in all three languages, differences such as preference of a type of motion over another (dynamicity), or the degree of transience/spatialization asymmetry are expected to be found.

2 Transience and time

Time is associated with transience and motion. As time passes, we notice changes around us and all events happen in time; motion and time become connected, movement is also a type of change in this sense. Even though at the beginning we are all exposed to similar experiences that potentially form the bases of mental metaphors, these initial correspondences are later influenced by the culture and the language that we belong to (Casasanto 2017: 49). We learn metaphors through life based on our language and culture, and once mappings are created based on a metaphor we hear, the other possible mappings become weaker (*ibidem*). New correspondences are established and strengthened, but the old ones are also present. The Hierarchical Mental Metaphors Theory gives a reason for universality and variation of metaphors based on such changes (*ibid.*) according to which the initial correspondence is not lost, only weakened, which makes the conception based on mental metaphors flexible (*ibidem*).

The claim that “temporal structure of language is locative in underlying structure” (Traugott 1978: 371), which suggests that in language time is often associated with space and movement, might not be completely true. A large number of verbs selected from the corpus are motion verbs, which link time with space. Evans argues that time can also be conceptualized without space and that “temporal representation” can be independent from “spatial representation” (Evans 2013b: 395). The possibility of other representations of this type are also discussed in this paper.

Since besides verbs that infer causation, motion verbs are the main focus here, these metaphors cannot be purely TIME IS SPACE metaphors: “they are not likening time to space, but rather likening the occurrence of events to motion through space” (Galton 2011: 701). Nevertheless, they are often called spatial metaphors (Galton 2011: 702). Although these types of time metaphors have been extensively studied before, time and space might not be as closely connected as presumed, for example at a neurological level time is distinct from sensorimotor experiences and space (Evans 2013b: 401). It is also argued that “motion metaphors of time are not cross domain mappings from space to time but mappings between frames that involve elements of both space and time” (Huomo 2017: 3).

Studies have also showed that time and space do not share every quality. The basic properties of time are: time is extended, linear, directed and transient (Galton 2011: 696). Extension has

to do with duration and amount (ibidem); linearity for example with how the future is ahead and the past behind (Galton 2011:700). Directedness has to do with the Moving Time/Moving Ego metaphor (ibidem). Several of these characteristics are shared with space, as space has similar properties: extension, linearity and directedness (Galton 2011: 698). Linearity is not three-dimensional space, but space as we experience it, e.g., the spatial axis or a loop (ibidem); directedness is for example up and down (ibid.).

There is only one aspect that time and space do not share: transience. Transience expresses the fleeting nature of time (Bender and Beller 2014: 345). Transience is not one of the properties of space without linking it to time: “achieved through motion, the transience of space thereby created being exemplified by the landscape rushing past as viewed from a moving train” (Galton 2011: 699). Thus, transience is listed as one of the most essential traits of time, which is independent from space (Galton 2011). The transience of time is not based on motion, rather on the change, which occurs by the change in position through motion (Galton 2011: 702). In other words, the transience of time can be captured either through motion that happens in space (Galton 2011: 702) or change (ibidem).

This is substantiated by other research: Evans discusses these terms with different names, except directedness: magnitude (instead of extension), and dimensionality (instead of linearity) (Evans 2013b: 404). He links magnitude with quantifiability (Evans 2013b: 404), where he distinguishes “discrete entities (e.g., objects) and mass entities (e.g., fluids)” (ibidem). He links directedness with either symmetry or asymmetry (Evans 2013b: 406).

While the spatial characteristics of time usually surface in other types of time metaphors (e.g., through prepositions), and not necessarily through motion verbs, as discussed here, these traits can be observed in the metaphors selected from the corpus. Extension, linearity, and directness are properties of a path, therefore if time is a path in metaphors such as time flows, then this means that these properties surface in such metaphors as well.

3 Discussion of Results

The results show the comparative frequency of motion in the three languages, reviewing frequencies in such a way that the differences and similarities in the rate at which the conceptual metaphors occur are put into evidence. Table (1) shows the raw frequency of verbs in TIME IS A MOVING ENTITY metaphors in each language, from the most frequent to the least frequent. The raw frequency is the total number of tokens that each type has in the corpus. For example, the raw frequency of the verb pass in English is 2664, which means that this is how many times the verb pass appears as a lemma in time metaphors in the *Corpus of Contemporary American English*, in finite constructions. Verb particles in brackets e.g., *pass (by)* mean that the verb can appear with or without the particle. If there are no brackets, e.g., *march on* or *stand still*, the verb usually appears with the particle. In some cases, where pointing out such information seems relevant, the number of the verb with, as well as without the particle is shown, e.g., *move (on)*, where *move* is used without *on* 140 times and with *on* 42 times.

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Space, time and transience
Argumentum 18 (2022), 273–286
Debreceni Egyetemi Kiadó
 DOI: 10.34103/ARGUMENTUM/2022/15

English	Raw frequency	Hungarian	Raw frequency	Finnish	Raw frequency
1 <i>pass (by)</i>	2664	<i>áll, (meg), ‘stop’</i>	764	<i>ajaa, (ohi), ‘pass, (by)’</i>	459
2 <i>go (by, on)</i>	2325	<i>jár, el, ‘walk, (away)’</i>	501	<i>jättää jostakusta, ‘leave from someone’</i>	448
3 <i>fly</i>	326	<i>jár, (felé), ‘walk, (towards)’</i>	306, (103 with <i>felé</i>)	<i>menee, (ohi) (kuin siivillä, menojaan) ‘go, (by) (on wings, on its way)’</i>	310 (20, 7)
4 <i>move (on)</i>	182 (140, 42 with on)	<i>halad, ‘pass’</i>	272	<i>rientää, ‘run’</i>	275
5 <i>stop</i>	173	<i>repül, röpül, (el), ‘fly, (away)’</i>	272	<i>vierähtää, ‘roll’</i>	245
6 <i>stand still</i>	155	<i>szalad, (el), ‘run, (away)’</i>	249	<i>kulkee, ‘walk’</i>	198
7 <i>progress</i>	117	<i>megy, ‘go’</i>	222	<i>pysähtyy, ‘stop’</i>	197
8 <i>slow (down)</i>	117	<i>rohan, (el), ‘run’</i>	192	<i>joutuu, ‘run’</i>	68
9 <i>marches on</i>	84	<i>halad, (meg), (túl), (el), ‘pass, (by) (over), (away)’</i>	162, (51, 87, 19)	<i>lentää, ‘fly’</i>	51
10 <i>slip (by)</i>	84	<i>száll, (el), (tova), ‘fly, (away), (by)’</i>	154	<i>vierii, ‘roll’</i>	46
11 <i>flow</i>	38	<i>fut, (el), (ki), ‘run (away), (out)’</i>	80 (9, 2)	<i>juoksee, ‘run’</i>	45
12 <i>drag on</i>	35	<i>lép, túl, ‘step, over’</i>	60	<i>kiittää (ohi), ‘dash (by)’</i>	42
13 <i>speed</i>	32	<i>áll, ‘stand’</i>	58	<i>etenee, ‘advance’</i>	38
14 <i>wait (doesn’t)</i>	31	<i>lassul (le), ‘slow, (down)’</i>	51, (41)	<i>hidastuu, ‘slow’</i>	35
15 <i>catch up</i>	24	<i>gyorsul, (fel), ‘speed, (up)’</i>	41	<i>hurahtaa, ‘swoosh’</i>	29
16 <i>get away</i>	22	<i>folyik, folydogál, ‘flow’</i>	35, 3	<i>matelee, ‘creep’</i>	20
17 <i>advance</i>	16	<i>pereg, (le), (vissza), ‘roll, (down), (back)’</i>	32	<i>valuu, ‘trickle’</i>	20
18 <i>roll</i>	16	<i>forog (ki), (kereke) ‘spin (out), (wheel)’</i>	28, (4, 14)	<i>seisoo, ‘stand’</i>	15
19 <i>crawl</i>	11	<i>jár, ‘walk’</i>	27	<i>hujahtaa, ‘dash’</i>	13
20 <i>creep</i>	10	<i>fordul, ‘turn’</i>	20	<i>karkaa, ‘flee’</i>	13
21 <i>shift</i>	10	<i>suhan, (el), ‘swoosh,’</i>	15	<i>nopautuu, ‘speed’</i>	12

		(away)'				
22	<i>travel</i>	9	<i>száguld, (el), 'dash,</i>	13	<i>seisahtuu, 'stop'</i>	11
			(away)'			
23	<i>fleet</i>	8	<i>pörög (le), (vissza), 'roll,</i>	12	<i>odottaa, (ei), 'wait,</i>	9
			(down), (back)		(not)'	
24	<i>halt (grind,</i>	8 (3, 2, 1,	<i>vár (nem), 'wait, (not)'</i>	12	<i>vilahtaa, 'whiz'</i>	6
	<i>screech,</i>	2)				
	<i>shudder, halt)</i>					
25	<i>flee</i>	7	<i>megy el felett, 'go away</i>	8	<i>virtaa, 'stream'</i>	6
			above'			
26	<i>rush</i>	7	<i>csorog, (csordogál)</i>	7, (4)	<i>liikkuu, 'move'</i>	5
			'trickle'			
27	<i>drip</i>	6	<i>robog, 'rush'</i>	7	<i>lipuu (ohi), 'glide</i>	5
					(by)'	
28	<i>turn</i>	6	<i>siet, 'hurry'</i>	7	<i>humahtaa, 'zoom'</i>	4
29	<i>run (backward,</i>	5 (5, 2)	<i>cammog, 'shamble'</i>	6	<i>kiertää, (kehä), 'turn</i>	4
	<i>fast)</i>				(around)'	
30	<i>spin</i>	4	<i>vánszorog, 'trudge'</i>	6		
31			<i>szárnyal, 'fly'</i>	5		
32			<i>röppen, (el), 'fly, (away)</i>	4 (2)		

Table 1. Raw frequency of verbs in TIME IS A MOVING ENTITY metaphors

In order to compare the frequency of motion used to express the passing of time in the three languages, a frequency scale is created. The data used to make this scale is calculated in the following way: for TIME IS A MOVING ENTITY conceptual metaphor the tokens are added up, the raw frequencies of the linguistic metaphors that fulfilled the criteria presented in this research. Using the total number of tokens, or raw frequency, and taking into consideration the size of each corpus, the normalized frequency¹ (or relative frequency) of the metaphors is calculated. The results are calculated in the following way: the number of occurrences is divided by the corpus size and multiplied by 1 million, for instance in the case of English, the number of motion verbs that appear in time metaphors, in which time is a Figure, is 6478, which is then divided by the corpus size, 873597604, and multiplied by 1 million, resulting in 7.41, as the example shows: $6478 \div 873597604 \times 1000000 = 7.41$ or $6478 \times 1000000 \div 873597604 = 7.41$.

There are more similarities than differences to observe above. The most significant similarity that can be observed in this table is that in all three languages the most frequent tokens are verbs that do not encode the rate of motion. As the examples show, in Hungarian staticism is more frequent than in the other two languages based on the frequency of the verb *áll, (meg), 'stop'*. However, stop and stand still are in the top ten most frequent motion verbs in English metaphors

¹ Based on the method by Friginal and Hardy (2013: 38).

as well, just like *pysähtyy*, ‘stop’ in Finnish. The top ten verbs also include motion that encodes the medium of air in all three languages (*fly* in English, *repül, röpül, (el)*, ‘fly, (away)’, *száll, (el), (tova)*, ‘fly, (away), (by)’ in Hungarian, and *lentää*, ‘fly’ in Finnish, which is Hungarian is more frequent. Finnish is the only language out of the three, where verbs based on the cycle schema are among the top ten most frequent verbs, e.g., *vierähtää*, ‘roll’.

(1E) *Time goes on for the world, but time stood still for us.* (newspaper; *Denver*, 2006)

(2H) *Ezer éve áll az idő.* (web; forum)
 thousand year.since stand.3SG.PRS the time.NOM
 ‘Time has been standing for a thousand years.’

(3F) *Aika pysähty-y hetke-ksi.* (newspaper; *Länsi-Savo* no. 160, 1999)
 time.NOM stop-3SG.PRS moment-TRANSL
 ‘Time stops for a moment.’

(4E) *Time flies when you're having fun.* (web; *CNN*, 2012)

(5F) *Aika lentä-ä nykyään aikamoi-sta vauhti-a.* (web; *Suomi24*, 2005)
 time.NOM fly-3SG.PRS nowadays quite-PTV speed-PTV
 ‘Time flies nowadays with quite a speed.’

(6H) *Hihetetlenül gyorsan repül-t az idő.* (press; sports article)
 unbelievably fast fly-3SG.PST the time.NOM
 ‘Time flew unbelievably fast.’

The differences in the top ten most frequent motion verbs have to do with the rate of motion. Only English has a verb for slow motion among these verbs, *slow (down)*; on the other hand, Hungarian and Finnish have two verbs for the fast rate of motion among the top ten most frequent verbs: *szalad, (el)*, ‘run, (away)’ and *rohan, (el)*, ‘run’ in Hungarian; *rientää*, ‘run’ and *joutuu*, ‘run’ in Finnish, while English does not have any.

(7F) *Herät-kää ihmis-et, aika rientä-ä.* (newspaper; *Länsi-Savo* no. 340, 1990)
 awaken-IMP.PL people-PL.NOM time.NOM run-3SG.PRS
 ‘Wake up people, time runs.’

(8H) *Borzalom, hogy szalad az idő.* (press; *Hétvége*)
 terrible how run.3SG.PRS the time.NOM
 ‘It’s terrible, how time runs.’

More specific type of motion regarding the manner of movement tends to be found in all three languages at the bottom of the table, expressed by low frequency verbs in time metaphors, such as *drip* (move in small segments), *halt* (stop suddenly), the Hungarian *csorog, (csordogál)*, ‘trickle’ (move in a small stream), or *vánszorog*, ‘trudge’ (obstructed slow motion of a heavy Figure²), as well as the Finnish *lipuu (ohi)*, ‘glide (by)’ (smooth motion through air of a light Figure).

² Figure (F), is the moving object/entity Ground (G) is the stationary reference object (Talmy 2000a: 311).

- (9H) *Ma vánszorg-ott az idő.* (web; blog)
 today trudge-3SG.PST the time.NOM
 ‘Today time trudged.’
- (10F) *Aika lipu-u käs-i-stä.* (magazine; *Aromi* 6, 2010)
 time.NOM glide-3SG.PRS hand-PL-ELA
 ‘Time glides from the hands.’
- (11H) *Angyali nyugalom-ban csordogál-t az idő.* (press; *Nép Szava, Sport*)
 heavenly peace-INE flow-3SG.PST the time.NOM
 ‘Time was flowing in heavenly peace’.
- (12E) *Time dripped like drops of blood.* (web; *thefreedictionary.com*, 2012)
- (13E) *Time halts at this college.* (spoken; *Fox O’Reilly*, 2003)

The raw frequencies of verbs are unified in the frequency scale below, which captures how frequently time is associated with motion in each language. Thus, it contrasts the frequency of the spatialization of time, based on the model of Galton (2011). Table (2) quantifies time as a Figure of motion. Chart (1) shows the frequency scale based on the normalized frequency of motion, where time is a Figure.

Moving time as a Figure ³	English	Finnish	Hungarian
Raw frequency (total number of occurrences)	6478	2603	3549
Normalized frequency (token number per 1 million words)	7.41	3.10	3.41

Table 2. Raw and normalized frequency of motion in time metaphors where time is a Figure

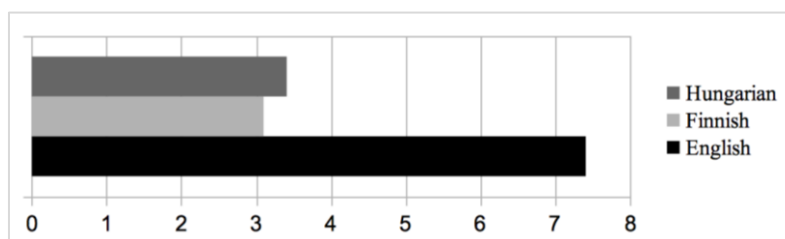


Chart 1. Frequency scale based on the normalized frequency of motion

³ Only those metaphors are included into this calculation, where time is the Figure of motion. This table therefore includes such metaphors as *time flies*, *time marches*, *time crawls*, *time passes by* etc. but does not include such examples as *time stretches out*, *time flows*, *time turns* and so on.

The numbers show several differences, the biggest one being that the number of moving time metaphors in English where time is the Figure of motion exceeds the number of such metaphors in Hungarian and Finnish by a considerable amount. The normalized frequency of TIME IS A MOVING ENTITY conceptual metaphor per one million words is double in English compared to Finnish, and nearly double compared to Hungarian.

This suggests that in English the passing of time is expressed prevalingly through motion verbs: in English *time passes* and *time goes by*, and besides these high frequency metaphors there are other frequent ones that express this concept. In fact, the normalized frequency of *time passes by* and *time goes by* is considerably higher than any motion verb that is used with time in Finnish or Hungarian. In these two languages this is expressed in a different manner. In both Finnish and Hungarian, the passing of time is lexicalized primarily through verbs denoting transience and not motion, as well as through a container metaphor in Hungarian. These verbs are *kuluu*, ‘wear on’ in Finnish, and *múlik*, ‘elapse’, as well as *telik*, ‘fill’ and the rarer *fogy (el)*, ‘dwindle, (away)’ in Hungarian; neither of them are motion verbs.

These three verbs appear in linguistic metaphors that have a very high normalized frequency, higher than any of the motion verbs in time metaphors in Finnish and Hungarian. In fact, the occurrences of *telik (el)*, ‘fill’ alone in the Hungarian corpus in time metaphors exceeds the total number of motion verbs used with time (rf of 3962 compared to rf 3625); in Finnish similarly the total occurrences of *kuluu*, ‘wear on’ alone exceeds the total number of motion verbs (rf 2909, compared to rf 2629). *Múlik (el)*, ‘elapse’, is very frequent with over 1000 hits. They all appear in dead metaphors. In contrast, the corresponding English verbs are not nearly as frequent: *elapse* rf 30, *lapse* rf 11, and *wear on* rf 36.

	English	Finnish	Hungarian
1	<i>elapse</i>	<i>kuluu</i> , ‘wear on’	<i>múlik, (el)</i> , ‘elapse, (away)’
2	<i>lapse</i>		<i>telik, (el)</i> , ‘fill, (away)’
3	<i>wear on</i>		<i>fogy (el)</i> , ‘dwindle, (away)’

Table 3. Verbs that express the transience of time without the spatial aspect

The literal meaning of the verbs shows some similarities, as they all refer to change and transience: *múlik*, is similar to *elapse* and *lapse*, it expresses the process of cessation, termination, ending; it is a derivative of *múlik, múlandó*, which means ‘transient’, as well as *múlt*, which means ‘past’ (in a similar manner as *past* is linked with the verb *pass*). *Telik*, ‘fill’, capture change regarding quantity, becoming more in amount. The verb *telik* is a derivate of the noun *teljes*, which means ‘entire’, ‘whole’. *Kuluu* refers to the process of wearing out, thus, it also captures a type of change of time, but regarding its quality, which lessens.

Compared to the motion verbs frequent in time metaphors mentioned above, these verbs are used in similar contexts as motion verbs, often the speed of the process is often present, such as fast or slow. From a lexical point of view, *telik*, ‘fill’, refers to a container that ‘fills up’. Moreover, in *telik az idő*, ‘time fills up’, time is a meta-Figure⁴, which is rare in metaphors in

⁴ Meta-Figure, “undergoing a change of shape” (Talmy 2000a: 333), such as expanding, shrinking, dilating, etc. The motion event type is self-referencing motion (Talmy 2000a: 329).

English. The main difference between other verbs where time is a meta-Figure and *telik* is that the latter marks the most frequent, conventional metaphor used with time in Hungarian that expresses the passing of time, while the rest are rare occurrences. The figurative meaning of these verbs is similar to that of many metaphors mentioned previously, as they express the transience of time. Alternatively, they can be interpreted as examples of fictive motion.

From a conceptual point of view there are some differences among these verbs of transience if we compare them to the rest of the verbs above. The verb *telik* differs from *múlik* and *kuluu*, as it is based on the container schema, or the full-empty schema (discussed by Evans 2006: 190). The pervasiveness of this schema can be explained in the following way: “the time container is filled with actions; hence, actions are substances that go into the time container” (Kövecses 2005: 135). The conceptual connection of time and substance surfaces elsewhere too, e.g., TIME IS A BODY OF WATER (*the river of time, the ocean of time* etc.). Here time is linked with the Matrix sense (Evans, 2004: 142), a vast space where everything happens and in which one can get lost. *Telik* is the only verb out of this group that has a spatial aspect because of the container schema that it is based on, nevertheless, it differs in several points from the rest of the manner of motion verbs that time is usually used with metaphorically. In metaphors with *telik* time appears as a large entity, a mass, which gradually fills up to its entirety, as a meta-Figure. This differs from other time metaphors, in which time is a Figure that moves through space; at a conceptual level this is based on the difference between TIME IS A MOVING OBJECT or TIME IS A MASS ENTITY OR SUBSTANCE (Kövecses, 2005: 51).

Compared to the motion verbs discussed previously, a significant difference is that *time passes* and *time goes by* metaphors place time in the agent’s position, one that moves itself, without the help of another entity. In this sense, time is a metaphorical agent. This is not true in the case of the Finnish *kuluu* and the Hungarian *múlik* or *telik*. In these metaphors time is not a metaphorical agent, it is an incremental theme (more on this: Dowty 1991). The Hungarian verbs *telik* and *múlik* belong to a group of verbs with an -ik ending in the third person; in a number of cases the subject of such verbs usually undergoes an action rather than carrying out an action. These are therefore motivated by TIME IS A FINITE ENTITY metaphor, because time in these metaphors is an entity in the process of becoming less in amount of quality therefore it is finite, transient. The only connection of *kuluu* and *múlik* with spatiality is through change that implies motion: “motion and change cannot exist without time, and indeed they cannot exist without a time that possesses the attribute of transience” (Galton, 2011: 702).

At the same time, these verbs capture time as a transition differently: “transitions are defined in terms of two states: an initial state, s1, and a final state, s2,” (Mani & Pustejovsky 2012: 80). It is difficult to pinpoint the s1 of *múlik*, ‘elapse’, but the s2 is cessation, end. In the case of *kuluu*, ‘wear on’, we can observe the same property: while s1 is not directly identifiable, s2 equals a qualitatively lesser state. In the case of *telik*, s1 is an empty container, and s2 is a full one. Alternatively, the opposite could be argued; a full container becoming empty, especially based on the variant of *telik* with the particle *le*, ‘down’ is e.g. *le-tel-ik*, (down-fill-3SG.PRS), ‘elapse’ or ‘run out’, which could suggest such a scenario, but it is more likely that we have at hand the orientational metaphor based on spatial orientation and observation, MORE IS UP, LESS IS DOWN, which is also a structural metaphor (Lakoff and Johnson 1980: 14, 15).

While in the case of motion verbs, such as *pass*, time moves from a point to another on a path, the state of time at these points is the same, as opposed to the model by Mani and Pustejovsky, where two different states are contrasted. This is another difference between how

motion verbs or *kuluu*, *múlik* and *telik* capture transience. There is plenty of evidence that transience is not a property of space, and at the same time transience is an essential aspect of time (Galton 2011:703), therefore “change-based metaphors” which are not “purely spatial” (ibidem) are more likely to capture this essential trait of time. These observations are relevant because “no purely spatial metaphor can capture the transience of time” (Galton 2011: 695), and clearly *kuluu* and *múlik* have no such spatial aspect.

- (14E) *Some time elapsed between the liturgical and the ecclesiological debates.* (academic; *Theological Studies* vol. 71, 2010)
- (15E) *So much time had lapsed.* (academic; *Journal of Drug Issues* vol. 38, 2008)
- (16E) *But as time wore on, the luster wore off.* (spoken; ABC 20/20 2009)
- (17F) *Aika kului nopeasti.* (web; *Suomi24*, 2001–2017: 2015)
 ‘time wear-3SG.PST fast’
 ‘Time wears on fast’.
- (18H) *Az idő csak múl-ik, szép lassan.* (web; *Facebook*)
 the time.NOM only elapse.3SG.PRS nice.NOM slowly
 ‘Time just elapses, nice and slow.’
- (19H) *Milyen gyorsan múl-ik az idő!* (scientific; *Wiki*)
 how fast elapse.3SG.PRS the time.NOM
 ‘How fast time elapses!’
- (20H) *De lassan tel-ik az idő.* (web; forum: *Törzsasztal: Szülés, terhesség 2.0*)
 how slowly fill-3SG.PRS the time.NOM,
 ‘How slowly time passes.’ (‘lit. fills up’).
- (21H) *Egyre fogy az idő.* (press; *Népszava, Gazdaság*)
 still dwindle.3SG.PRS the time.NOM
 ‘Time is dwindling still.’

From the basic properties of time discussed before (extension, linearity, directedness and transience, (Galton 2011: 696), *kuluu* and *múlik* only capture the non-spatial aspect, which is transience, and not the characteristics of spatialized time mentioned by Galton (2011: 698). *Telik*, if we consider the lexical information, as well as the conceptual information that this verb carries, could capture the spatial aspect of extension, if we interpret time ‘filling up’ having different amounts at different times. This is also congruous with the quantifiability of magnitude, the same spatial quality discussed by Evans under a different name (2013b: 404). In any case, even this metaphor that stems from a spatial schema (container), it has less identifiable spatial properties than those based on motion verbs where time is the path of motion.

4 Conclusion

The significant quantifiable discrepancy presented above has implications not only at a lexical level, but also at a conceptual level: English relies primarily on TIME IS A MOVING ENTITY conceptual metaphor, rather than on other conceptual metaphors such as TIME IS A FINITE ENTITY (Hungarian, Finnish) as well as TIME IS A CONTAINER (Hungarian) or TIME IS A SUBSTANCE (Hungarian).

This study focuses on the spatialization and the transience of time as it emerges through verbs; both surface in all three languages. What quantitative analysis shows is that when talking about the passing of time, Finnish tends to rely more frequently on non-motion verbs that capture the transience and not the spatial characteristics of time, while English relies primarily on motion verbs, which besides transience also link time to space. Conceptually this suggests that in the particular metaphorical mappings discussed in this study there is a tendency to conceptualize time as a Figure which moves along on a Path between two points in English, thus transience through motion; in Finnish on the other hand there is a higher likelihood for such mappings to emerge independently from “spatial representation” (Evans 2013b: 395).

The transience of time without the spatial element can be observed to a certain extent in Hungarian too, as well as through a different type of spatial aspect that is not typical for English or Finnish, where time is a meta-Figure or a substance-like mass entity. This has other implications as well. In typical lexicalization patterns of the passing of time in English, time tends to be a metaphorical agent, while in Finnish and Hungarian this aspect of time is less evident. This also implies that the source domain that time is connected with in English in the most frequent conventional expressions is more concrete, and in Hungarian and Finnish more abstract.

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