IDIOMATICITY AND ANALOGY IN INFLECTION: A USAGE-BASED INVESTIGATION OF THE CORRELATION BETWEEN SPATIAL CASES AND LEXICAL-SEMANTIC CLASSES IN HUNGARIAN

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Abstract

There has been little discussion on two problems of spatial cases, which might relate to lexical-semantic classification: neither the issue of semantic opacity, nor alternation has been dealt with in depth. The present paper has as its objective to broaden our current knowledge on Hungarian spatial cases by exploring how they correlate with lexical-semantic classes. The paper focuses on the Hungarian bidimensional spatial case system in which the so-called ON-configuration, IN-configuration, and AT-configuration markers express the image schema of the Ground, and, at the same time, they also express whether the Ground is a source, a location, or a destination in relation to the Figure. The paper argues that inflection is lexically organized, and analogy is responsible for the productivity of constructions as well as for the semantic opacity (idiomaticity) of inflected word forms. It also argues that locative alternation is mainly due to the highlighting of different semantic substructures in the nominal's meaning, to metonymy, and to differences in semantic grounding. Through typical linguistic examples and corpus analyses, the relationships between ON-configuration, IN-configuration, and AT-configuration markers and some lexical-semantic classes are demonstrated. As for cognitive motivation, perceptual experiences are obviously crucial to the establishment of a morpholexical cluster. However, based on an analysis of relatively opaque word forms, the paper argues that speakers tend to overlook kinaesthetic perceptual experiences when an already established exemplar cluster gains a new member by analogical extension mainly based on culturally accessible associative information.

Keywords: inflection, case, locative, idiom, analogy

1. Introduction

The crucial role of semantic restrictions in word-formation processes has been widely observed. Certain derivative and compounding structures even serve to produce culturally definable types of nouns (such as names of professions), which is also known as systematic lexicalisation (Kastovsky 1982). Several studies on derivation have been carried out from a strong semantic perspective, with comparative semantic categories (Štekauer et al. 2020). However, the role of semantic classification and systematic lexicalisation in inflection is far from obvious. On the one hand, a semantic class with a particular inflectional pattern does not count as an exceptional phenomenon; for instance, the occurrence of plural markers is reduced to animate nouns in many languages (not to mention the semantic basis of gender systems). Moreover, one can find instances for a lexicalised case function as well; for example, temporal nouns mark time by taking instrumental case in Russian (e.g., *utr-om* 'in the morning', *dn-em* 'in the afternoon', *večer-om* 'in the evening', *noč-ju* 'at night') and Hungarian (e.g., *éj-jel* 'at night', *nap-pal* 'in the daytime'). On the other hand, a lexically conditioned inflectional pattern in Hungarian (see material nouns) is interpreted in the literature (Kiefer 2000) as a result of distinctly incidental semantic factors. Furthermore, common knowledge on the correlations between cases and lexical-semantic classes is limited to the particularities of nouns

DOI: 10.54888/slh.2024.36.5.15

that tend to have unique spatial markers (e.g., geographical names, note in this regard that some Hungarian town names preserve an ancient locative ending, see *Győr-ött*), and to the grammaticalisation of spatial affixes that originate from body-part terms (see Heine et al. 1991). In sum, the significance of lexical-semantic classification has still not found general acceptance in inflectional morphology (cf. Aristar 1997; Gaeta 2008; Luraghi 2003).

Accordingly, there has been little discussion on two problems concerning locative expressions, which, in our view, relate to lexical-semantic classification: neither the issue of (at least relative) semantic opacity (see the examples in (1)), nor alternation (see examples (1), (2), (3a), (3b) and (4)) has been dealt with in depth.

(1a)	metró-ra	száll	(1b)	a metró-n
	metro-SUB	board		the metro-SUP'
	'take the metro'			'on the metro'
(2a)	metró-ba	száll	(2b)	a metró-ban
	metro-ILL	board		the metro-INE'
	'take the metro'			'in the metro'
(3a)	a lakodalom-ban		(3b)	a lakodalm-on
	wedding-INE			the wedding-SUP
	'at the wedding'			'at the wedding'
(4)	az esküvő-n			
	the wedding-SUP			
	'at the wedding'			

The present paper has as its objective to broaden our current knowledge on Hungarian spatial cases by exploring how they correlate with lexical-semantic classes. It proposes a usage-based framework to model the network of Hungarian locative constructions, and it raises the following basic yet significant questions about morphological knowledge: What are the principles of morphological organisation that might account for the productivity as well as semantic opacity (idiomaticity) of spatial constructs? Which semantic operations give rise to locative alternation? These theoretical issues are outlined in the second part. The paper focuses on the Hungarian bidimensional spatial case system, in which the so-called ON-configuration, IN-configuration, and AT-configuration markers (see Creissels 2008) as second-order schemas (Booij 2015) express the image schema (Johnson 1987) of the Ground, and, at the same time, they express whether the Ground is a source, a location, or a destination (ablative, locative, and lative cases, respectively) in relation to the Figure. On this basis, the paper asks: Which lexical-semantic classes are associated with ON-configuration, IN-configuration, and AT-configuration markers? The description also addresses the issue of locative alternation: Which are the systemic patterns of locative alternation? The assumed correlations are dealt with according to these questions in the third part of the paper, and a corpus-based morphosemantic investigation is applied to test some descriptive hypotheses. The fourth part of the paper concludes.

2. Usage-based theoretical considerations

In this section it is argued that inflection is lexically organised, and analogy as a domain-general cognitive process (Bybee 2010) is responsible for the productivity of constructions as exemplar-based form–meaning pairings as well as for the semantic opacity (idiomaticity) of inflected word-forms. In addition, it is argued that locative alternation is mainly due to the highlighting of different semantic substructures of the nominal meaning, to metonymy, and to differences in semantic grounding.

2.1. Constructions and idiomaticity

The traditional view is that while the semantics of derivation and compounding pose serious problems for morphological description even in productive word formation, there are no semantic issues in the case of inflection. The high degree of semantic transparency in inflection is emphasised even in the recent usage-based grammar of Hungarian (Ladányi 2017: 527). Semantic regularity is partly explained by the sharp distinction between inflection and the lexicon. For instance, Stump (1998: 17) claims that derived lexemes are listed in the lexicon, which allows their meanings to "drift" idiosyncratically, while regularly inflected forms are not listed, which requires their meanings to remain rule-governed. Nevertheless, Kracht considers the opaque instantiations of Hungarian spatial cases below (see also examples 1–4) to be idiosyncrasies motivated by a peculiar (or non-existent) shape of a location and concludes that "the choice of localisers is not completely random but at the same time largely unpredictable" (2005: 151).

(5a)	hajó-ra	száll	(5b)	a hajó-n
	ship-SUB	board		the ship-SUP
	'take a ship'			'on the ship'
(6a)	csónak-ba	száll	(6b)	a csónak-ban
	boat-ILL	board		the boat-INE
	'sit in(to) a boat'			'in the boat'

As far as the motivations behind locatives are concerned, many attempts have been made in cognitive linguistics to describe their experiential basis (see Kothencz 2012; Szilágyi 1996; Tolcsvai Nagy 2013). However, kinaesthetic and/or perceptual experiences, per se, do not account for instances such as examples (1), (5) and (6), where a bounded space is conceptualised as a SURFACE and an open space is conceptualised as a CONTAINER, respectively. A further factor to consider is that boarding a ship typically (or traditionally) involves upward movement, whereas a boat is lower, thus no upward movement is required for boarding. Hence, the association between the concept UP with ON-configuration markers may motivate the word forms *hajó-ra* ship-SUB and *hajó-n* ship-SUP. Still, a morphological framework that mainly relies on 'online' spatial and motional conceptualisations fails to handle the apparently idiomatic nature of certain word forms (see *metró-ra* metro-SUB and *metró-n* metro-SUP).

Indeed, the concept of constructions is based on the observation that, in language, unpredictable, phonologically and semantically highly specific idioms, as well as completely schematic and regular morphosyntactic structures, can be placed at the two ends of an idiomaticity scale (Fillmore et al., 1988). Under this approach, the meaning of a linguistic structure, including morphological structures, is rarely (if ever) fully compositional, cannot be traced back to the meaning of its parts, such as the spatial case and the nominal meaning. A construction is a schematic form–meaning pairing which may have a variety of idiosyncratic features originated in the factors of usage. A usage-based constructional approach can account for 'unpredictable' inflected forms, as they are treated as instantiations of word-level constructions in terms of schematic form–meaning pairings (cf. Booij 2010) that are generalisations over the lexicon (cf. Blevins 2006). Accordingly, the present paper argues that the characteristics of lexical organisation are detectable in inflection as well, with semantic restrictions being directly associated with the inflectional constructions themselves, thus, there are systemic interrelations between spatial constructions and the lexical-semantic classes of nouns (cf. the concept of systemic lexicalisation in derivation). For instance, it can be hypothesised that Hungarian nouns that denote artefacts with an elaborate structure to store other objects are conceptually compatible with the locative function of inessive case, and vice versa, when a concrete noun's locative is in inessive case, it can be conceptualised as referring to an artefact with an elaborate structure to store other objects (see also other open, only partially bounded objects like *láda* 'crate', *korsó* 'mug' etc.). This may explain the use of inessive in the case of *csónak* 'boat' which is a word used for the transportation and (temporary) storage of certain entities (such as fish). The assumed form–meaning pairing is formalised below (following the formalisation proposed by Booij 2010), where $_N$ refers to a noun, and $_i$ may refer to an artefact with an elaborate structure to store other objects.

$$< [[x]_{Ni}\text{-bAn}]_j \leftrightarrow [\text{inside SEM}_i]_j >$$

In what follows, analogy is described as an underlying process responsible for both the productivity of a construction and the idiomaticity of word forms.

2.2. Analogy and idiomaticity

Schematic, word-level morphological constructions represent the basic unit of the present usage-based description, but they are not considered to be fully independent of their instantiations. Our central assumption is that the productivity of a morphological construction (MC below) rests upon its bidirectional relatedness with an exemplar cluster (see Bybee 2010), as the already existing complex words (CW_n below) provide indirect associative links to potential roots or stems (SW_a below) via their own (SW_n below) that can then serve as reference points for analogical extensions. The network that enables the basic relations of analogy ($CW_n \leftrightarrow SW_n$, $SW_n \leftrightarrow SW_a$) and the possible ways of analogical extension are formalised below. The symbol $_n$ indicates that analogical extension is motivated by a certain number of instances for productive constructions.

Underlying network of morphological constructions:	$[MC] \leftrightarrow CW_n \leftrightarrow SW_n \leftrightarrow SW_a$		
The analogical motivation behind productivity:	$SW_n : SW_a$	::	$CW_n : X$
	$SW_n : CW_n$	::	$SW_a : X$
			$X = CW_a$

Supportive evidence for the assumption outlined above comes from derivation: it has been widely observed that lexicalisation of derivatives is in correlation with loss of productivity (see Marle 1988). That is to say, lexicalised derivatives (CW_n above) do not activate their bases (SW_n above), thus they do not provide constructions ([MC] above) with access to potential bases (SW_a above).

As for motivation, there are several spatial expressions concerning culturally definable 'places' (see examples 3 and 4) that are hardly motivated by direct perceptual experiences. The role of perceptual experiences can only be raised metaphorically, however, the operativeness of metaphorical extensions on the individual level (see Kövecses 2002) is questionable. Instead, analogy provides an exemplar-based explanation for the similarities of nouns that elaborate constructions as well as for their (relative) semantic opacity. Locatives are motivated, structured and sanctioned by exemplar clusters that function as analogous groups, and analogy is based on lexical-semantic features. Thus, in examples like (1–6), it is not only the combination of the case meaning and the nominal meaning that we need to consider but also the word forms that may be used analogously. For instance, if we look at nouns that show distributional similarity with the word *hajó* 'ship' according to the Thesaurus tool of SketchEngine (Kilgarriff et al. 2014) applied to Hungarian Web corpora (huTenTen2023), we find that *jármű* 'vehicle' occurs most often in similar contexts, and indeed, vehicle can be treated as a superordinate category of SHIP. According to the Hungarian Gigaword Corpus (Oravecz et al. 2014), the word *jármű* 'vehicle' is more frequently used with ON-configuration constructions than IN-configuration ones: vehicle.SUP 3484 tokens > vehicle.INE 2120 tokens, vehicle.SUB 3516 > vehicle.ILL 1113. It may well be that the analogy between the two words (and others in the relevant lexical-semantic class) could motivate the use of spatial cases for *hajó* 'ship', and the markedness (unusualness) of the *hajó-ban* ship-INE, *hajó-ba* ship-ILL word forms. Overall, analogy can lead to semantically less transparent locative forms if the analogical extension is based on functional rather than perceptual similarities:

jármű	:	jármű-ON	::	hajó	:	X
jármű	:	hajó	::	jármű-ON	:	X
						X = hajó-On

The assumed associative relationship between the lexical-semantic class of vehicles and ON-configuration constructions is examined on a corpus basis in the third part of the paper.

2.3. Encyclopaedic knowledge, idiomaticity, and locative alternation

As regards one's theoretical approach to the semantic transparency of inflected word forms, it is also important to note that certain aspects of encyclopaedic knowledge (Wierzbicka 1995) associated with a word are more salient than others (Langacker 1987). For instance, the central semantic component to the meaning of *asztal* 'table' is the tabletop as the structurally most typical and functionally most relevant part. Therefore, as illustrated in Figure 1, the word *az asztal-on* 'on the table' denotes the surface of the tabletop (not that of the whole table or its legs), it is its profile (Langacker 1987). Accordingly, the locative expression *az asztal alatt* 'under the table' refers to the spatial region under the tabletop (and not under the whole object).

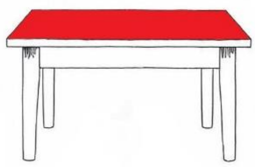

Figure 1. Semantic schema of *asztal-on* table-SUP 'on the table'

Thus, an inflected form's semantic transparency is relative in nature. Even when a locative construction is productive, the word forms as instantiations can be considered idiomatic and opaque to some extent.

To understand the alternation of locatives it is important to bear in mind that lexical-semantic classes are also considered dynamic representations. Semantic classification is a context-dependent categorising process that correlates with the chosen way of conceptualisation known as construal (Langacker 1987). A noun invokes several abstract properties arranged in line with a variety of cognitive domains (SHAPE, STRUCTURE, CANONICAL FUNCTION, MATERIAL, etc.), thus "it consists of a set of semantic exemplars" (Bybee 2010: 22) of which "only a limited number can be activated on a given occasion" (Langacker 1987: 57). For example, in the examples below, the different cognitive domains and semantic substructures of a car are profiled in relation to the conceived base.

(7a)	nagy autó	'big car'	SIZE
(7b)	családi autó	'family car'	FUNCTION
(7c)	kék autó	'blue car'	COLOR, STRUCTURE (body part)
(7d)	kényelmes autó	'comfortable car'	FUNCTION, STRUCTURE (cabin part)

Therefore, the same lexical item can direct one's attention to a transportation device (~ CANONICAL FUNCTION domain) or to a bounded, built object with doors and windows (~ STRUCTURE AND SHAPE DOMAINS) depending on the foregrounded semantic substructure, also known as the active zone (Tolcsvai Nagy 2017: 216–218), which might partially explain the alternation of locatives, see again examples (1) and (2). IN-configuration constructions (*metró-ban* 'in the metro') may highlight structural semantic substructures, while ON-configuration constructions (*metró-n* 'on the metro') can activate the functional zones of nominal meaning.

The alternation of localisers might rest upon metonymy as well. Several metonymic patterns have been identified concerning Hungarian nouns (Pethő 2004). Due to systematically arising metonymic shifts, a noun might belong to more than one lexical-semantic class. Thus, a noun can direct our attention to the area of an institution or to the institution itself, and, via the alternation of locatives, localisers might contribute to expressing these subtle semantic distinctions, see example (8) below. For (8a), the university building serves as a reference point to the institution, while for (8b) the university is directly represented as an institution.

(8a)	levél	az	egyetem-ről	(8b)	levél	az	egyetem-től
	letter	the	university-DEL		letter	the	university-ABL
	'a letter from the university'				'a letter from the university'		

Both metonymy and active zone are based on a whole–part relationship. The distinction between them can be made by observing whether the whole and the part belong to the same cognitive ontology (Paradis 2005). The related conceptualisations share cognitive ontology in zone activation (conceptual continuity), while they differ in this respect in metonymy (conceptual contiguity).

The alternation of localisers can also be motivated by grounding. ON-configuration and IN-configuration markers can sometimes be in contrastive distribution in this regard. This claim is based on conventional pairs such as *az utcá-n* the street-SUP 'on the street' in a generic sense ↔ *az utcá-ban* the street-INE 'in the street' in a specific sense; *falu-n* village-SUP 'in a village' in a generic sense ↔ *a falu-ban* the village-INE 'in the village' in a specific sense. From a theoretical perspective, it would be a considerable result to validate this claim since Hungarian spatial expressions are not considered typical grounding elements in contrast to determiners and number markers (Tolcsvai Nagy 2017: 359–361). This issue is also examined on a corpus basis in the next part of the paper.

3. Correlations between lexical-semantic classes and spatial constructions

This part addresses the following questions: a) Which lexical-semantic classes are associated with ON-configuration, IN-configuration, and AT-configuration markers? b) Which are the systemic patterns of locative alternation? Through typical linguistic examples and corpus analyses, the relationships between some spatial constructions and lexical-semantic classes are illustrated.

3.1. Assumed lexical–inflectional correlations

In Hungarian, ON-configuration marker sister schemas (Booij 2015) (superessive, sublative, and delative) are associated with the lexical-semantic classes of {vehicles}, {social events}, and {institutional areas}. This claim is based on conventional structures such as *hajó-n* ship-SUP 'on a ship', *a temetés-en* funeral-SUP 'at a funeral', *egyetem-en* university-SUP 'at the university'.

IN-configuration marker sister schemas (inessive, illative, and elative) are associated with the lexical-semantic classes of {built objects}, {community}, and {social events}. This claim is based on conventional structures such as *sátor-ban* tent-INE 'in a tent', *közösség-ben* community-INE 'in a community', *bál-ba* ball-ILL 'to the ball'.

AT-configuration marker sister schemas (adessive, allative, and ablative) are associated with the lexical-semantic classes of {persons}, and {establishments}. This claim is based on conventional structures such as *fordász-hoz* hairdresser-ALL 'to the hairdresser', *a Nokiá-nál* Nokia-ADE 'at Nokia'.

As far as the semantic networks of the spatial constructions are concerned, it is highly debatable whether the multiple functions of the constructions are semantically related to each other. For instance, the lexical-semantic class of {persons} is related to the cluster of {establishments} that can be characterised by personification, which makes the 'polysemist position' (cf. Haspelmath

2003) tenable concerning the AT-configuration marker constructions. Furthermore, there is a strong probability that Hungarian ON-configuration markers are associated with multiple morpholexical clusters that are classified according to their canonical function (see {social events} and {institutional areas}). Vehicles may provide a family resemblance link between these clusters; their spatial and instrumental meanings can even be blended: *teherautó-n szállít* (truck-SUP transport) 'transport by/on truck'.

3.2. Assumed systemic locative alternation

Locative alternation exhibits systemic patterns as a function of lexical polysemic networks. The claim is based on conventional structures (see below). The alternations can be described as follows:

IN-configuration {built objects} – ON-configuration {vehicles}
(9) a buszban 'in the bus.INE' / a buszon 'on the bus.SUP'

ON-configuration {institutional areas} – AT-configuration {establishments}
(10) (levél) az egyetemről / az egyetemtől '(letter) from the university.DEL/ABL'

IN-configuration {built objects} – AT-configuration {establishments}
(11) (valaki) az iskolából / az iskolától '(someone) from the school.ELA/ABL'

ON-configuration {institutional areas} – IN-configuration {built objects}
(12) konyhán / a konyhában (dolgozik) '(work) in a/the kitchen.SUP/INE'

IN-configuration {community} – AT-configuration {establishments}
(13) (belép) a rendőrségbe / a rendőrséghez 'enter the Police.ILL/ALL'

IN-configuration {social events} – ON-configuration {social events}
(14) bálba / bálra (megy) '(go) to the ball.ILL/SUB'

The organisation of the patterns above is not homogeneous. The choice of the localiser can mark major distinctions (see (12)), while in other cases (see (14)) there are competing constructions with subtle semantic differences to be explored.

The lexical–inflectional interrelations are partially responsible for the multifunctionality of inflectional constructions as well. It can be observed that the use of morphological constructions might be lexically conditioned even when they contribute to the meaning of a syntactic construction, and they are associated with a thematic role. For instance, a member of {musical instruments} can fill the INSTRUMENT thematic role in a few lexically conditioned syntactic constructions such as *gitár-on játszik* (guitar-SUP play) 'play the guitar', *gitár-on kísér* (guitar-SUP accompany) 'accompany on guitar'. These expressions represent the transition between idiomatic locative structures and formally (morphologically) fixed syntactic arguments. The less important a specific lexical-semantic class is in filling a thematic role in an argument structure, the less the spatial meaning contributes to the meaning of the syntactic construction. This appears to be true even when the use of a spatial construction is originally motivated in a syntactic construction but its meaning is already backgrounded in relation to the meaning of the syntactic pattern as a whole. In Hungarian, a typical sign of separation from a lexical-semantic class is the lack of alternation and the fact that the case construction no longer forms a second-order schema (Booij 2015), i.e. they do not imply each other. There are no morphological alternatives for the constructs (instantiated constructions) *beszél valamiről* (talk something.DEL) 'talk about something' or *büszke valamire* (proud something.SUB) 'proud of something', and the other ON-configuration marker constructions no longer play a role.

3.3. Corpus-based investigations

Corpus-based morphosemantic investigations can be applied to test the descriptive assumptions outlined above. Through the use of corpora, it is possible to demonstrate correlations between lexical-semantic classes and spatial cases, to analyse the alternation of locatives, and to explore the central cognitive domain of nouns. It is the examination of relative frequency (distribution of a construction in a noun's inflectional pattern) that enables us to establish the extent to which a noun is associated with a construction. The method relies upon the assumption that when a localiser is associated with a lexical-semantic class, members of the assumed morpholexical cluster exhibit similarities in the distribution of the construction. In the Hungarian National Corpus (HNC) (Oravecz et. al 2014), we have examined the relative frequency of ON-configuration and IN-configuration marker constructions for twenty nouns naming vehicles and buildings, and found that the nouns differ according to their lexical-semantic properties. Figure 2 shows the partition of the nouns into two clusters by k-means clustering. The green squares illustrate the {vehicles} cluster, while the blue ones represent {buildings}. The filled green and blue squares indicate the means, in other words, cluster centroids.

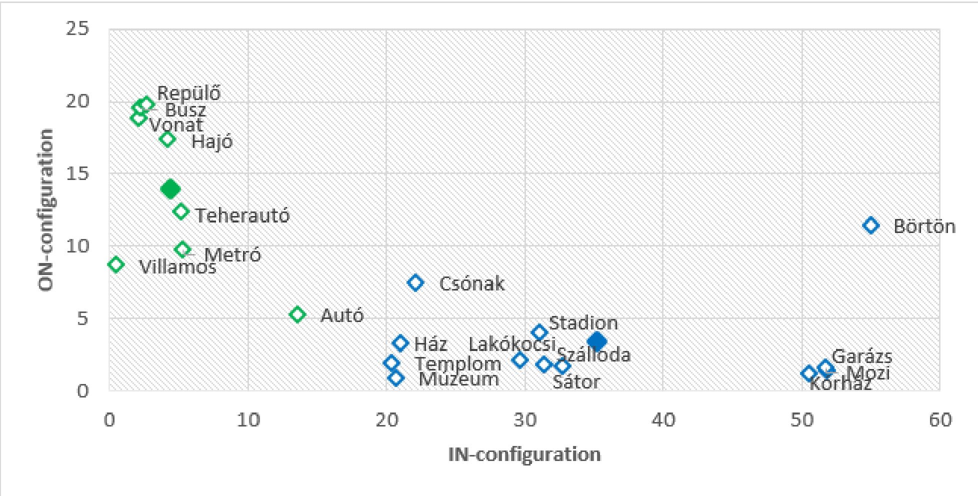

Figure 2. Clustering of nouns that belong to different lexical-semantic classes according to the percentage distribution of different configuration markers

Buildings and vehicles are both built objects with many structural similarities, the difference between them is functional in terms of their mobility or lack thereof. We can observe in Figure 2 that the locative patterns of buildings (*ház* 'house', *múzeum* 'museum', *templom* 'church', *stadion* 'stadium', *szálloda* 'hotel', *kórház* 'hospital', *mozi* 'cinema', *garázs* 'garage', and *börtön* 'prison') differ from that of vehicles for public and/or commercial transportation (*repülő* 'airplane', *busz* 'bus', *vonat* 'train', *hajó* 'ship', *teherautó* 'truck', *metró* 'metro', and *villamos* 'tram'). The latter tend to be used with ON-configuration markers regardless of their shape. However, vehicles for personal use (*autó* 'car' and *csónak* 'boat') are relatively far from both means, and they seem to be associated with the IN-configuration markers to a greater extent than other vehicles, though it is still possible to foreground their telic 'mobility' semantic aspects and background their structural properties by integrating the superessive with a semantically corresponding verb: *autó-n megy* (car-SUP go) 'go by car', *csónak-on megy* (boat-SUP) 'go by boat'. *Lakókocsi* 'caravan', for its part, shows similarity in the distribution of localisers to other objects for accommodation such as *sátor* 'tent', and *szálloda* 'hotel', probably because it might also be classified as a {building}. This illustrates that class membership may be relatively fixed in usage patterns, and lexical meaning can be characterised by centrality in terms of likelihood of activation (see 2.3.). Accordingly, some of the nouns in the sample could be viewed as an institutional area; however, they are conceptualised as being bounded regardless of their function, hence it seems that the STRUCTURE cognitive domain is central to their meaning.

Though the results of this method need to be interpreted with caution, the position of *börtön* 'prison' in the figure above shows that taking several configuration markers into account provides an adequate tool for the research. The noun in question constitutes a strong collocated expression with *ítél* 'to sentence' in sublative case (*börtönre ítél* 'sentence to prison.SUB'). However, this metonymic use of the noun does not make *börtön* 'prison' similar to the nouns naming vehicles. This is because actual spatial meaning is a frequently elaborated semantic substructure of nouns.

Evidence for the assumed associative relationships in 3.1. can also be found by looking at the verbs with which the locatives co-occur. Verbs activate different aspects of nominal meaning. Even in the case of alternation, our assumptions predict that the distribution of localisers differs according to the cognitive domains the verbs evoke. For instance, taking again the nouns naming vehicles into account, the token frequency of superessive is higher in the context of a verb such as *utazik* 'travel', a word that directly activates the CANONICAL FUNCTION domain, than in the context of *ül* 'sit', which might primarily evoke the STRUCTURE domain. This is shown in columns I. and II. in Figure 3. Accordingly, though superessive is more frequently used with the latter verb (see columns I. and III.), the token frequency of inessive is still higher in its context than in that of *utazik* 'travel' (see columns III. and IV.). To make this technique more reliable, it is crucial to compare the distribution of cases to their overall distribution within the argument structure of the verbs in question. The distribution of the two cases is balanced for *ül* 'sit' (48,10% SUP : 51,9% INE) in the corpus of Verb Argument Browser (v0.7.1) (Sass 2009), while the token frequency of superessive is higher in the argument structure of *utazik* 'travel' in general (58,64% SUP : 41,36% INE). However, this minor distinction still does not explain the data below. Instead, as excepted, it suggests an interrelation between spatial cases and lexical meaning.

	SUPE		**INE**	
	I.	II.	III.	IV.
	ül 'sit'	*utazik* 'travel'	*ül* 'sit'	*utazik* 'travel'
metró 'metro'	55	480	15	10
villamos 'tram'	88	313	10	2
vonat 'train'	363	756	27	26
busz 'bus'	364	1650	64	47
repülő 'plane'	140	150	3	2

Figure 3. The use of superessive and inessive in the context of the verbs *ül* 'sit' and *utazik* 'travel' for nouns that denote means of public transport

To test the assumed contrastive distribution of configuration markers concerning grounding (see 2.3.), typical grounding elements need to be analysed. For instance, when there is a contrast in distribution between IN-configuration markers and ON-configuration markers, it is reflected in the distribution of possessive structures that make nouns definite in Hungarian. This prediction can be tested by searching according to complex morphological parameters in HNC. Indeed, examining the nouns *buli* 'party', *lakodalom* 'wedding', and *bál* 'ball', which belong to the lexical-semantic class of {social events} and exhibit balanced locative alternation, results suggest that ON-configuration marker constructions are much more frequently used with possessive structures in this class. On the other hand, as shown in Figure 4, IN-configuration marker constructions are hardly used with them. Numbers on the left indicate percentages, with vectors showing the overall relative frequency of possessive structures. Since possessive structure is a reference-point construction (Tolcsvai Nagy 2017: 250), the reference of an ON-configurational word form tends to be more salient in comparison to that of an IN-configurational one. Needless to say, this examination could be extended to other nouns naming social events to clarify the difference between social events that are associated only with the ON-configuration and those which are associated with IN-configuration as well. In any case, the markedness of structures like *buli-já-ban* party-PX3Sg-INE, *bál-já-ban* ball-

PX3Sg-INE, *lakodalm-á-ban* wedding party-PX3Sg-INE is striking in comparison with the more natural word forms *buli-já-n* party-PX3Sg-SUP, *bál-já-n* ball-PX3Sg-SUP, *lakodalm-á-n* wedding party-PX3Sg-SUP, which may be related to the grounding function of the ON-configuration constructions.

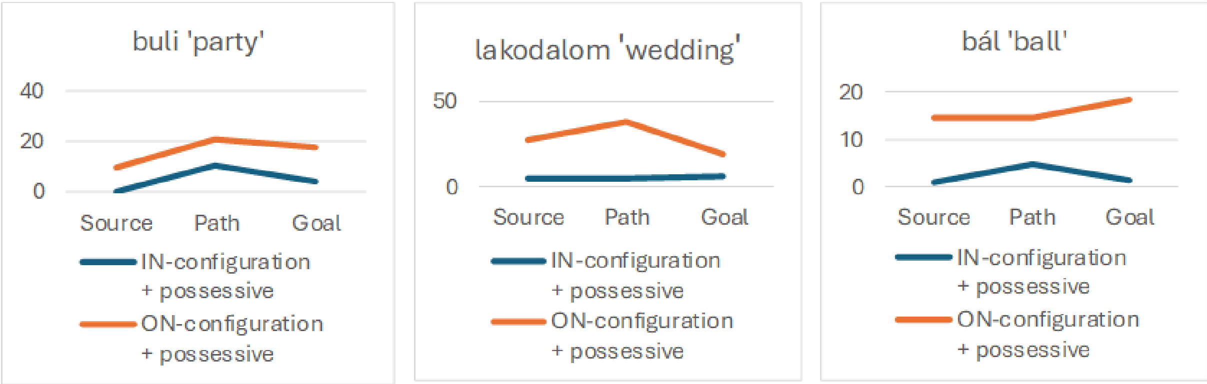

Figure 4. Percentage occurrence of the possessive in different types of locative constructions of nouns that denote a social event

4. Conclusions

The paper aimed at demonstrating the role of idiomaticity and analogy in inflection by observing interrelations between lexical-semantic classes and spatial constructions. It also intended to provide an explanation for locative alternation and opacity, and to shed new light on spatial morphological constructions. As for conceptualisation and motivation, perceptual experiences are obviously crucial to the establishment of a morpholexical cluster, e.g., buses, trams, etc. usually had steps that passengers had to ascend, which might explain the assumed associative relationship between ON-configuration and public vehicles. However, on the basis of relatively opaque word forms, the paper argued that speakers tend to overlook kinaesthetic perceptual experiences when an already established exemplar cluster gains a new member by analogical extension mainly based on culturally accessible associative information, as formally summarised below.

busz {public vehicle} : buszra [sublative]	::	metró {public vehicle}	: x
busz {public vehicle} : metró {public vehicle}	::	buszra [sublative]	: x
			x = metróra

The investigations detailed above might support the claim that analogy plays an important role in inflection, which would provide a new insight into the use of spatial cases. They may also challenge traditional claims on the semantic transparency and regularity of inflection, and call into question cognitive semantic analyses that only attach importance to image-schemas and metaphorisation in the functioning of spatial cases.

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