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## *Mental Aspects of Proper Names\**

### **1. Introduction**

Conventional onomastic research deals with the etymology of names, the linguistic strata in name corpora, the linguistic description and categorization of names. Besides that, socio-onomastics exams the way names are embedded into the social environment. To gain a comprehensive view of language and names as its elements, however, beyond the two layers previously outlined (usage in the community and the linguistic system), both also have to be examined as elements of the mental system, since language, and thus, also names, are physically present in a person's brain. These problems are covered by the research scope of psycholinguistics and neurolinguistics, therefore, onomastic research, an inherently multidisciplinary field, has to expand towards these scientific fields as well.

Psycholinguistics as a science was born in the United States in the 1950s, with the primary aim of gaining knowledge of and becoming able to model the representation of language and linguistic processes in the mental system (PLÉH 2014a). In order to achieve that aim, sophisticated experimental procedures were applied. Yet, for long decades, the category of proper names barely surfaced in research, if at all. This group of words was included in studies only from the 1980s onwards, but research on the subject may still be considered peripheral. In the 2000s interest towards the neurological representation of this group of words manifested itself in the field of neuroscience related to psycholinguistics and neurolinguistics, and researchers are leveraging rapidly developing electrophysiological and imaging procedures to explore the neural aspects of the word group (cf. RESZEGI 2014, YEN 2006: 44–60, MÜLLER 2010: 351–352).

This study attempts to demonstrate the benefits that onomastics can gain by expanding to include the achievements made in psycholinguistics and neurolinguistics on the mental representation of proper names, while also addressing the limitations of applying these results. As a matter of fact, the requirement to pay closer attention to the achievements of psycholinguistics

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and neurolinguistics has recently been raised by onomastic experts (e.g. VAN LANGENDONCK 2007, HOFFMANN 2015: 19, NIKOLAEVNA 2018), still, the integration of the results into onomastic research is, for the present, quite rare.

## 2. Psycholinguistics and name theory issues

The achievements of psycholinguistics and neurolinguistics could be useful in the evaluation of a number of name theory issues.

### 2.1. The meaning of proper names

One of the main issues concerning names is whether or not they have meanings. This issue has been intriguing thinkers engaged with language, including philosophers, as well as representatives of logic for quite some time, and their theories are occasionally adopted by experts approaching names from a linguistic perspective. It is, however, not possible to do so without any problems, as logical-philosophical analysis is focused on the referential properties of proper names; that is, it approaches the issue from the perspective of the truth-content of statements, rather than the usage of words in natural speech. The primary aim of formal linguistics is the examination of linguistic structure, and is, therefore, based on linguistic forms, with studies basically concentrating on nothing but these forms. This approach does not facilitate grasping the meaning associated with actual language use, as the real function of a name is limited to identifying an entity (cf. e.g. KIEFER 2000: 161). Functional linguistics, on the other hand, focuses on the function and the meaning of expressions in language, and linguists applying this approach attribute meanings, indeed, complex structures of meanings to names (TOLCSVAI NAGY 2008).

As can be seen, the answer to the question whether or not names have meanings, and what proper names mean, depends primarily on the theoretical framework chosen for interpretation. If, however, one wishes to understand the actual ways in which language and name usage exist, then the initial question has to be how names are used as parts of language behaviour, and there is only one of the approaches mentioned that can provide a suitable framework for that – functionalism. Still, when evaluating the issue, it is useful to take into consideration the results provided by psycholinguistics and neurolinguistics on the semantics of proper names.

**2.1.1.** Approaching the question from the point of view of psycholinguistics and neurolinguistics, the same ambiguity can be found as in the case of formal and functional linguistics as can be demonstrated through studies on language impairments.

One particular type of aphasia, anomia is a type of word-retrieval disorder. It is often the category of proper names or one class of proper names only, that anomic patients have difficulties processing. Furthermore, acquiring new names frequently causes problems for them, while they are able to learn new appellatives without any difficulties (cf. e.g. SEMENZA–ZETTIN 1989, ELLIS–YOUNG–CRITCHLEY 1998). Based on studies on proper name anomia, experts often consider names as nothing more than referring labels, i.e. tags which allow the identifying of the name-bearers but do not describe any of their properties (BRÉDART–VALENTINE 1998: 200, SEMENZA–ZETTIN 1989, LUCHELLI–DE RENZI 1992).

It is worth going deeper into this question. First of all, aphasias are not all or nothing issues, even proper name anomia does not cause an impairment of retrieval of the whole word class. CRUTCH and WARRINGTON (2003), for example, reported a patient, whose ability to identify country or city names became worse when selecting geographically close rather than distant places.

In some cases – especially those of global aphasia – proper names or some types of this word category may be preserved. This is often accounted for by the different semantic features and neural representation of the word class.

Based on the relevant literature on neuropsychology as seen from an onomastic point of view, WILLY VAN LANGENDONCK inferred that names not only have meanings, but they can be described as having a complex structure of meaning (2007: 106–117). He referred to a selective conceptual deficit for people's names due to anterior left temporal trauma reported by MICELI and his colleagues (2000). The researchers explained it as an impairment of conceptual knowledge of people. VAN LANGENDONCK interpreted it as evidence that “associative meaning connected with the referent may constitute an important feature of proper names” (2007: 113).

In the latest research on the topic MALGORZATA RUTKIEWICZ-HANCZEWSKA also argued for the complex meaning of names. The researcher analysed the difficulties her patients with subcortical aphasia (anomia) had in retrieving proper names, and those compensational processes they applied. One type of compensational techniques consists of periphrasis, i.e. descriptions of the designatum. In these cases, patients used their denotative knowledge of the object as well as their knowledge related to denotatum in an associative manner, all of which are based on conceptual knowledge. The other type of compensational technique relies on retrieving linguistic knowledge of names, which manifests itself in paraphrases. These can be semantic paraphrases, such as the ones based on part-whole relationships, or the frequent case of retrieving the name of a person with the same profession instead of the target word. Synonymic, polysemic and oppositional relationships, on the other hand, are



rarely used as means of paraphrasing, which led RUTKIEWICZ-HANCZEWSKA to hypothesize that these relationships play a less determinant role in organising proper names within the mental lexicon. Besides paraphrases of semantic nature, anomic patients occasionally produce lexical and phonemic paraphrases or neologisms in place of the target word. As to associations linked to name forms, they lead to reetymologies (2016: 169–175). It has to be noted, however, that the classification of individual processes is not always clear-cut, partially due to the fact that they are often manifested in a complex manner.

Thus, these conceptual (encyclopaedic knowledge on the object and associations) and linguistic elements of knowledge are all parts of a name's mental representation, within which representation no strict line can be drawn between different types of knowledge.

**2.1.2.** Besides anomia, proper names are particularly frequently involved in retrieval difficulties. The processes we apply in the case of the TOT (the tip of the tongue) phenomenon or speech errors are similar to those described for anomic patients. Speakers, when faced with the problem of access, also often use periphrasis based on their knowledge of the denotatum to substitute for the target word, while speech errors are often words semantically or phonologically related to the target word (e.g. for family names, *Kiss* 'Little' instead of *Nagy* 'Big', *Keskeny* 'Narrow' instead of *Széles* 'Broad', *Katona* 'Soldier' or *Lovas* 'Cavalier' instead of *Huszár* 'Knight'; *Bokor Pál* instead of *Bodor Pál*, HUSZÁR 2005: 93–94; cf. RESZEGI 2009: 12–13, YEN 2006: 28).

Most of the researchers focus only on frequency of retrieval difficulties, and consider this fact as corroboration of the concept of formal linguistics, i.e. the meaninglessness of proper names (cf. e.g. COHEN–BURKE 1993). Models explaining name retrieval integrate this kind of meaning of proper names as well (e.g. VALENTINE–BRENNEN–BRÉDART 1996). According to COHEN–FAULKNER's hierarchical model there is a weak connection between the name form (phonological node) and the lexical node, and it might lead to deficits in the transmission of excitation resulting in TOT states (1986).

However, the meaninglessness or low-degree-of-meaning of proper names can be debated from more perspectives. Some experts consider, for example, the frequency of TOT states in the case of proper names as an illusion, namely appellatives can be substituted for another (synonymous) one in the case of retrieval difficulties, due to this fact more semantic paraphrases for names can be detected than that for common nouns (VALENTINE–BRENNEN–BRÉDART 1996: 28–29). The low-degree-of-meaning of names also can be interpreted as a difference from the meaning structure of appellatives (as corroborated in the field of neuropsychology by DOUVILLE et al. 2005: 700, VAN LANCKER et al. 1991). Furthermore, the frequency of retrieval difficulties can be effected by

the exposure frequency of names (either type and token frequency) (COHEN–BURKE 1986).

VAN LANGENDONCK also emphasised the special meaning structure of proper names. While having no lexical meaning similar to those of appellatives, they still carry some meaning: namely, a presuppositional meaning, with several components – a categorical one (a basic level meaning corresponding to the category of basic concepts within the hierarchy of concepts, cf. ROSCH 1978), an associative, an emotive and a grammatical meaning (2007: 106–117).

**2.1.3.** Results obtained by studies carried out using imaging procedures may also indicate that proper names have extended neural representations, and, consequentially, that proper names have complex meanings. In a study of speakers of Mandarin Chinese using functional magnetic resonance imaging (fMRI) it has been found that listening to proper names activates not only the usual brain areas in the left cerebral hemisphere, but also other regions of that hemisphere (regions within the precentral gyrus, superior temporal gyrus, subcortical regions) and certain regions of the right cerebral hemisphere (MÜLLER 2010: 355).

Extended neural (even subcortical) representations of proper names are corroborated by other studies using imaging procedures and electrophysiological techniques as well (cf. YAMADORI et al. 2002, MÜLLER et al. 1999, YEN et al. 2005, REINKEMEIER et al. 1997, LUCCHELI et al. 1997, OTSUKA et al. 2005, GORNO-TEMPINI et al. 2000, 2001).

Yet, when discussing studies on the localization of proper names within the brain, it must be emphasised that based on neural representation only tentative consequences can be drawn related to meaning, since these two aspects consist of two different levels of language description.

Furthermore, studies on the localization of proper names are fairly contradictory, which is not surprising, considering the language centres themselves do not have intrinsically fixed locations. Language does, of course, have its specific brain regions (such as Broca's area and Wernicke's area), the locations of these, however, may vary significantly between individual persons, not to mention that they are not exclusively responsible for processing language. They could be more accurately defined as convergence zones taking part in linguistic processes, where neurons having roles in linguistic processes can be found in much higher numbers than in other parts of the brain (cf. JANCÓS 2004: 130–140, MÜLLER–PALMER 2008: 87–90, DAMASIO et al. 2004, TRANEL 2006).

**2.1.4.** As has been demonstrated psycholinguistics and neurolinguistics are not uniform on the meaning of proper names. While it is true that they do not deal with issues of language theory or onomastics directly, still, what they attribute to



language within the mental system (i.e. whether they reckon with an independent language module or the close integration of various cognitive functions within the mental system) will fundamentally determine whether or not they consider conceptual knowledge to be a part of meaning, and also the kind of knowledge they consider to belong to the meaning of a name. Studies related to proper names usually tend to corroborate the special characteristics of this word group, i.e. the tenet of formal linguistics. But a hypothesis of independent language and the assumption of separate levels of language (separated syntax) is rather problematic both from the evolutionary aspect and the aspect of ontogenesis (cf. NÁNAY 2000: 130, FEHÉR 2011, MACWHINNEY 2003: 517). Besides, with such a hypothesis, it is not possible to account for specific traits of language usage and language change. Therefore, onomastics considers it more advantageous to follow the concept of models based on holistic, connectionist (constructivist) approaches.

In the light of the above, one can draw the conclusion that neither the actual way in which names are used, nor the insight gained into the mental representation of names corroborates the views taken by formal linguistics on the meaning of proper names. Thus, while such a limited interpretation does indeed make it easier to describe language, it does not correspond to the way names exist within the mental system in reality. Representations of proper names and appellatives build up together with conceptual knowledge of the world and the environment during language acquisition, and as a consequence, conceptual knowledge and semantic content cannot be separated one from the other (cf. RESZEGI 2015, 2016).

## 2.2. The issue of word classes

Conclusions drawn from psycholinguistics may also provide help with categorizing proper names into word classes. According to formal linguistics, word classes can be described relying mainly on syntactical means. The category of proper names can be determined, however, only based on logical-semantic criteria, thus in formal linguistics, proper names are not viewed as a category of the language system, and are not considered to belong to language (BARABÁS–KÁLMÁN C.–NÁDASDY 1977: 140, 144, 146, FABÓ 1979, 1980: 55). The approach of formal linguistics, however – as seen above – fails to take into account the way language exists in fact. Functional linguistics, being aimed at exploring language based on the way it is used, considers syntactical characteristics and other kinds of knowledge equally important for the definition of word classes. According to this approach, proper names – being the names of entities – are elements within the category of nouns, which elements, however, denote a single entity, rather than a category of entities, and as such, belong to their own peculiar group within the category of nouns (TOLCSVAI NAGY 2008: 31).



This approach provides a smooth path for prototype theory applied in psycholinguistics to model several aspects of language. The theory was developed by psychologist ELEANOR ROSCH to provide an explanation for the organization of conceptual categories (1978). This kind of organization, however, appears to be well suited to the description of various levels of linguistic categories as well (LADÁNYI 1998: 410), and word class categories may well be also constructed along these lines. At the same time, according to the functionalist (connectionist) models of psycholinguistics, which have recently become even more influential, knowledge of word classes, like grammar in general, exists as connections between the elements of the mental lexicon, since words, based on their similarities of form, usage, etc. are organized into networks of varying strengths. The links along which these networks are organized are the equivalents of the conventional concept of grammar (BYBEE–SLOBIN 1982, BYBEE–MODER 1983, cf. NÁNAY 2000). To put it another way, there is no separate grammar, and word classes do not have to be delineated based exclusively on their grammatical properties. In such a network-structured mental lexicon, proper names have several similarities with appellatives, yet, due to their unique denoting function and certain grammatical peculiarities, they form a special sub-network(s) within the category of nouns.<sup>1</sup>

Systematic data obtained by neurological examinations also show proper names to be organized in a somewhat unique fashion. In a study carried out on native English language speakers, the analysis of brain surface electric potential measurements taken using the EEG procedure<sup>2</sup> has demonstrated that processing sentence-initial proper names and appellatives results in similar brainwaves. The presumption of a special subcategory of proper names is still born out, however, by the fact that when these language elements are processed, 100 and 200 ms after the stimulus is sounded, a wave of higher amplitude (N100, P200)<sup>3</sup> can be measured along the medial longitudinal fissure separating the two hemispheres and also from the posterior lateral region (MÜLLER 2010: 353–355, MÜLLER–KUTAS 1996). Then again, this difference is observable only for the two primary types of proper names, anthroponyms and toponyms, while brand names covered by the study mostly trigger the same waveforms as

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<sup>1</sup> One of the dominant notions about the construction of grammatical categories is the presumption of a likely link with early semantic categories, with semantic categories seen as quasi antecedents, without, however, refuting the existence of specifically linguistic categories (BABARCZY–LUKÁCS–PLÉH 2014: 449–457, 472–476).

<sup>2</sup> The procedure is based on measuring the electrical activity of the brain with conductive electrodes placed along the scalp.

<sup>3</sup> N100 is a negative deviation of the electrical wave observable when proper names are being processed; that is, the amplitude can be observed to have increased in the negative direction 100 ms after the stimulus is sounded, while P200 is an increased positive deviation 200 ms after the stimulus is sounded.





appellatives, which indicates anthroponyms and toponyms are special (MÜLLER 2010: 353–355, cf. CRUTCH–WARRINGTON 2004, GONTIJO–ZHANG 2007). These observations allow for the conclusion that different types of proper names also have significant differences with respect to neural processing.

Results of lexical decision task studies are considered as a good tool as well when delineating this group of words. In these experiments participants had to decide for each item on a random list of words whether it was an appellative or a proper name. Researchers had expected that because of the difficulties of proper name retrieval, decisions on them would need more time. However, decisions on proper names were made significantly faster both in visual and auditory modalities. The experiment has been carried out in German, Mandarin and Arabic languages and difference was only found related to German toponyms (MÜLLER 2010: 352–353, YEN–MÜLLER 2003, YEN 2006: 125–127). Nevertheless, different data on reaction time also occurred (cf. YOUNG et al. 1988). Considering the time aspect in the processing of proper names required electrophysiological studies as well. Researchers recording those electrical potentials of the brain which occur when processing sentences (cf. the EEG experiment presented in the previous paragraph) found that in the case of sentences beginning with names, the waveforms characteristic of proper names often appear even before the word form has been heard to its end. Researchers were curious to find out what caused this early processing, and when examining the acoustics of the sentences, they found noticeable differences between the physical properties of the phonemic forms of appellatives versus those of proper names: in the case of first names there is a higher  $F_2$  formant of the first vowel (MÜLLER 2010: 356). This may be an indication that with regards to mental processing, as well as to categorization into word classes, it is not only grammatical and semantic properties of each word group that are important, but other properties matter and also have their roles.

The issue of word class of proper names raises the so-called double dissociation phenomenon. Results show that mental deficits of appellatives and those of proper names possibly occur independently from each other. This fact is often used in psycholinguistics as an argument to prove that the two classes of words are completely independent from each other. However, a more thorough examination of specific cases reveals that there is no indisputable evidence for the double dissociation of proper names and appellatives (cf. e.g. YEN 2006: 44–54, RESZEGI 2014: 133–136), since the behaviour manifested by patients was not of an all or nothing issue, and it did not involve every type within the category of appellatives and proper names. Patients described by GOODGLASS and his colleagues, for example, while having difficulties in retrieving the names of body parts, have preserved toponyms (GOODGLASS–BUTTERS 1988, GOODGLASS–WINGFIELD 1993), yet, the likelihood that the names of body



parts are represented in a way different from other appellatives, or that they are retrieved in a different way from the latter is considered small.

The assertion that appellatives and proper names are represented in different ways, and to some extent also processed differently, is also supported by a phenomenon within the mental lexicon of Hungarian speakers, viz., the occasional differences between the conjugation of Hungarian names versus appellatives (*aranyat* ‘gold, accusative’ vs. *Aranyt* ‘the family name of a famous Hungarian poet, accusative’). This morphological peculiarity has been shown by experiments. In a survey led by ÁGNES LUKÁCS (2001), participants were asked to insert pseudo-words (e.g. *noszár*), similar to real words, into sentences in contexts of appellative, name and loan word adaptation. The researcher found speakers to be very sensitive to the phonological-morphological structure of words in an appellative context, that is, they applied the conjugation paradigms of irregular forms more often (*noszarat*), in a name context, on the other hand, speakers made no distinction between regular and irregular classes of stems (*Noszárt*). (In the Hungarian language, this is the very characteristic based on which – in combination with other characteristics – an unknown series of sounds is processed either as a proper name or as an appellative.) ÁGNES LUKÁCS’s explanation for the phenomenon is that the appellative lexical units belonging to similar classes of stems with irregular phonological structures are not accessible in the case of words within name contexts (2001: 143). The unequivocalness of this statement, however, can be refined based on retrieval difficulties and mistakes concerning proper names. Language games and the word forms originating from them, some of which have become fixed, must not be disregarded either.

### 2.3. The issues of proper names as linguistic units

According to cognitive linguistics, the acquisition of proper names and their representation in the cognitive system is likely to be based on the storage of complete forms rather than analytical processing. That is, toponyms are linguistic units, and, as such, acquired and stored without analytic processing, and analytic processing can only supplement processing by units as a secondary method (cf. TOLCSVAI NAGY 2008: 32). Several onomasticians (e.g. HOFFMANN 2012: 20–21), myself included, however, treat this axiomatic statement with some reservation, and presume that names are, to a certain degree, analytically processed and analogically matched upon their acquisition. One piece of evidence for this process is provided by folk etymology explanations for toponyms. Needless to say, this also depends on the linguistic sensitivity and previous experiences of toponyms – that is, to what extent the names met with earlier are motivated – of the persons concerned, their interest towards the



particular language, and also the linguistic structure of each newly met name (RESZEGI 2009: 12).

The issue of the unit-like quality of names is related to those of the models of the mental lexicon and the ways in which grammatical analysis takes place, that is, how complex word forms are processed and stored. As a consequence of studies carried out with appellatives, in the field of psycholinguistics, models combining analytic (grammar rule operated) and holistic processing have become mainstream (cf. LUKÁCS–PLÉH–KAS–THUMA 2014: 225–227). However, a holistic mental lexicon operating essentially on the basis of analogies can also provide an explanation for the results of all of these studies. A separate repository of grammatical rules – as mentioned before – is also difficult to explain from an evolutionary aspect (cf. NÁNAY 2000: 130, PLÉH 2014), additionally, holistic storage is ontogenetically far better grounded (FEHÉR 2011). The storage of complete forms, however, does not imply that every possible form of a word has to be stored; in the course of first language acquisition, these complete patterns – based on similarities in comparison with each other and their contexts – are gradually segmented into morphemes and organized into dynamic morphological-syntactical groups (BYBEE–SLOBIN 1982, BYBEE–MODER 1983). The morphological-syntactical principles along which the lexicon is organized may correspond to grammar in the conventional sense (cf. TOMASELLO 2009). Thus, holistic models also reckon with some sort of analysis, i.e. mapping based on analogies, which processes, however, are not necessarily conscious.

A similar, analogy-based processing of names is indicated by semantically triggered speech errors of anthroponyms, as well as priming studies. These experiments show that words introduced as a family name (*Baker*) automatically also trigger the semantics of the corresponding appellatives (as evidenced by the fact that after the introduction of the family name, semantic decisions on words related to the corresponding appellative are made faster) (cf. VALENTINE–BRENNEN–BRÉDART 1996: 72).

In the light of these – even though no studies focusing directly on the subject have been carried out – a similar *modus operandi* can be presumed for toponyms and other kinds of names. For the aforementioned reasons, based on aspects of phonology, phonotactics, name structure, semantics, co-occurrence, etc., the representation of any particular name is closely related to the representations of several other names and/or appellatives, some of which relationships correspond to similarities with other names and/or appellative elements (cf. RESZEGI 2014: 141–142). Some sort of analogy-based mapping obviously does take place even with names, even if unconsciously, just like vernacular word forms are not learned through conscious analysis in the course of language acquisition. (With regards to toponyms, see also RESZEGI’s comment in RESZEGI 2018.)



## 2.4. The acquisition of proper names

Besides psycholinguistical research on the issues of semantic and grammatical categorization, studying the acquisition of proper names could also be beneficial for onomastics, since knowledge gained in this fashion may be informative with regards to the functioning of proper names, and can also make it easier to solve problems like those surrounding the genesis of the category of proper names.

General experience shows infants to have word representations by the age of one year, and they can understand and process words even earlier; approximately at the age of one year, or perhaps a bit later, they start producing words themselves. Experimental research has proven this process begins much earlier; by the age of six months, infants are capable of differentiating between proper names and appellative denotations of countable things (TINCOFF–JUSCZYK 1999, 2000).<sup>4</sup> In other words, babies acquire elements from both groups of words at the earliest stages of lexical development. The generally accepted view is that there are conceptual biases underlying children's early meaning-associations. According to HALL, for example, in the initial stages, conceptual biases are to be reckoned with, such as the fact that babies conceive certain entities (specifically human beings) as individual existing beings, while they conceive other entities (objects) as specimens of their categories (2009: 422–429). The content of these initial biases is disputed, however, and it is as yet unknown when and how the mechanisms characteristic of adults replace the initial biases which determine the association of meanings (cf. RESZEGI 2015: 85–86, 2016: 8–9).

In spite of unsettled issues, based on research in developmental psychology and psycholinguistics, at the present, it appears already evident that in the process of language acquisition, proper names appear at the same time as appellatives. Besides, separation and marking of conspecific versus heterospecific specimens is one of the essential attributes of human behaviour, and so also is the spatiality concerning passive objects (MIKLÓSI 2005: 53). Based on these facts – even though the ontogenetical development of a particular ability cannot be projected back onto the evolution of an entire species, not to mention that the evolution of language is generally an uncertain field of scientific thinking – one might have some grounds to presume that the category of appellatives and that of proper names might also have appeared simultaneously in the development of language. As to which proper names were the first ones – even though

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<sup>4</sup> When hearing the words *Mummy* and *Daddy* – which, according to the researchers, function as proper names in the initial phases of language acquisition – babies turned towards the image of the corresponding parent at a significantly higher ratio, provided they were only shown the images of the two parents. No similar phenomenon is discernible when images of other men and women are shown. On the other hand, when hearing the words *hands* and *feet*, babies do expand the word categories to various hands and feet (TINCOFF–JUSCZYK 1999, 2000).



anthroponyms and toponyms can both be considered to be ancient word categories – they were probably the anthroponyms. According to child language research on the acquisition of proper names, proper name denotations of places also appear in a later phase of the first language acquisition process than those of persons. This is because rudimentary knowledge on the wider geographical environment is a prerequisite for the former (RESZEGI 2015: 90–94, 2016).

As a matter of curiosity regarding processing, a person's own name has a special role amongst anthroponyms which can be detected very early. Babies as little as four to five months old already manifest clear signs of this special role – they will turn towards the source from which they hear their own names more frequently than towards the source of any other series of sounds (MANDEL–JUSCZYK–PISONI 1995, JUSCZYK–MANDEL 1996: 36–37). The special role of one's own name remains during life. In the course of single-ear hearing tasks, one's own name is processed significantly faster than other personal names (MULLER–BOVET 2002), and even in sleep, the brain reacts to it in a unique way (BASTUJI–PERRIN–GARCIA-LARVEA 2002).<sup>5</sup>

### 3. Summary (limitations, further possibilities)

The achievements made in psycholinguistics and neurolinguistics have real and considerable benefits for onomastics, while at the same time there is a demonstrated need for circumspection on the part of onomastic scholars. On the one hand, it goes without saying that a comprehensive understanding of the entire field of science is required for the evaluation of results. In this respect, it has to be realized that there are multiple possible interpretations for the results themselves, and also that there are only certain concrete questions to which they provide answers. Besides, the very sources in which the results are published apply certain presuppositions in their interpretation. Another point to always bear in mind is that psycholinguistical models are systems of hypotheses. As nobody knows what exactly happens in the brain, and the only known factors are some behavioural outputs, a few aspects of time and of brain activity, researchers are trying to draw conclusions as to the underlying mechanisms based on what they do know, then develop models of the processes within the mental system relying on their conclusions. Then again, there are some models meant to explain given phenomena, without consideration for the mental system as a whole. Obviously, the preferred model should comply with further criteria: it should be dynamic, it should coincide with the theory of evolution, and it should account for the process of ontogenesis.

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<sup>5</sup> The role that names, including not only a person's own name, but names of other types as well, play in the development of an identity, is well-known in onomastic research (cf. e.g. HOFFMANN 2010: 53–54).

Without losing sight of those points, the achievements made in psycholinguistics and neurolinguistics may help with gaining insight into the subtleties of not only the issues outlined here, but also of other onomastical issues as well, such as how semantic relationships (synonymy, polysemy, etc.) can be interpreted in the case of proper names; or how proper-name-to-appellative transformations can be interpreted within the mental system, and what correlates it has in the neural system. The relationship between the mental map and toponyms has recently surfaced in several studies on onomastics. Hypotheses made on the basis of observations made of language behaviour or on theoretical grounds may also be confirmed by psycholinguistical and neurolinguistical research.

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## Abstract

To gain complete insight into name usage and name-giving, it is necessary to study it from three different perspectives: 1. First of all, researchers need to examine the mental process, that is, what happens in one's mind while using proper names in conversations, what features the process of the acquisition, production, and comprehension of proper names has in comparison with common nouns. 2. Besides the mental level, it is also important to study the name stock as a system used for describing the linguistic characteristics of different name types and explore the interrelations within the name stock and between the names and other linguistic elements. 3. It is also necessary to



consider names as parts of language functioning in conversation, in other words to study the circumstances of name usage and its pragmatical aspects: when one uses proper names instead of descriptions, what kind of names are preferred in different situations, etc. By referring to the psycholinguistic and neurolinguistic researches on mental aspects of names, this study endeavors to demonstrate why it is important for onomastics to take this aspect and knowledge into consideration.

**Keywords:** psycholinguistics, acquisition of proper names, mental aspect of proper names