INSTYTUT BADAŃ LITERACKICH POLSKIEJ AKADEMII NAUK



ИНСТИТУТ ЗА ЛИТЕРАТУРА БЪЛГАРСКА АКАЛЕМИЯ НА НАУКИТЕ



FOR THE SERVICE SERVIC

## SYLWIA FABISIAK and PAWEŁ RUTKOWSKI

## ICONICITY IN POLISH SIGN LANGUAGE

### 0. INTRODUCTION

It seems to be an uncontroversial fact that natural sign languages are characterized by ever present iconicity. According to some scholars, this feature makes the lexical and grammatical systems of sign languages substantially different from those found in oral communication. Others say that although, admittedly, many phenomena occurring in sign languages do have an iconic motivation, the cognitive basis of both spoken and signed communication is exactly the same. The aim of this paper is to present an overview of the most notable aspects of iconicity in Polish Sign Language. We also attempt to juxtapose the notion of iconicity with that of (non-)arbitrariness and argue that iconic motivation does not represent a binary feature distinguishing visual-spatial languages from vocal-aural ones. Instead, we prefer to think of iconicity as one of many universal cognitive mechanisms that may influence but do not define the human language faculty.<sup>1</sup>

We are grateful to Małgorzata Czajkowska-Kisil, Teresa Dobrzyńska, Alexander Joulego, Jadwiga Linde-Usiekniewicz, Marek Świdziński and Corey Yoquelet for helpful comments on various aspects of the material presented in this paper. The second author also acknowledges the financial support of the Polish Ministry of Science and Higher Education through

### 1. WHAT IS POLISH SIGN LANGUAGE?

Polish Sign Language (*Polski Język Migowy*, usually referred to as *PJM*) is a full-fledged natural language used by the Deaf community in Poland (cf. Świdziński and Gałkowski (2003)).<sup>2</sup> Note that Polish Sign Language (hereinafter, PSL) should not be confused with the so-called *System Językowo-Migowy* [Signed Polish] (see e.g. Perlin (1993)), an artificial language whose grammar closely corresponds to that of spoken Polish. PSL, on the other hand, is completely different from Polish in terms of grammar: it is an analytical language, devoid of fusional inflection, characterized by non-linearity and three-dimensionality of syntax. It should be considered a minority language in Poland; its only unusual characteristic being that in most cases it is not passed on from generation to generation but rather through peer assembly (typically, in deaf schools).

Sign language research is a very prodigious and quickly ex-

a grant entitled Składnia Polskiego Języka Migowego (PJM) w ujęciu typologicznym [The syntax of Polish Sign Language from a typological perspective].

The word *Deaf* is usually capitalized when it refers to people who were born with a hearing impairment, use sign language as their primary means of communication, and consider themselves part of the Deaf cultural/language group. Deafness is their social identity, and not a disability. By contrast, the spelling *deaf* is typically used for the hearing impaired who became deaf later in life, do not sign natively, and hence do not belong to the Deaf culture. Note, however, that when it comes to social identity, we should not expect clear-cut distinctions: some of those born with hearing impairment are deaf not Deaf; many of those born to hearing parents never identify as Deaf; some native speakers of spoken languages who later develop hearing impairments become Deaf; some hearing impaired people who later develop hearing abilities remain Deaf but not deaf; some who were always hearing are Deaf (CODAs, i.e. Children of Deaf Adults).

panding area of linguistics. The academic community all over the world recognizes sign languages as an extremely intriguing subject of study because, despite being fully systematic and complex systems of human communication, they are intriguingly different from spoken languages. Sign language research has resulted in redefinition of existing language typologies and modification of many traditional assumptions about the nature of human linguistic competence (see e.g. Siple (1978), Emmorey (2002), Sandler and Lillo-Martin (2006)). According to most researchers, sign language communication is based on the same (possibly universal) set of cognitive principles that underlies the use of spoken languages. However, how this fundamental linguistic competence maps onto the actual grammatical form of individual sign languages is, to a large extent, determined by the visual-spatial medium of sign. This medium shapes linguistic structure in ways not encountered in languages based on the auditory-acoustic medium of speech. One of the most striking differences is that, unlike spoken strings of words, signed utterances need not be strictly linear. Two (or even more) signs may be produced simultaneously. This forces us to redefine the notions of syntactic word order and phrasal structure. Signs also undergo specific types of movement and are always produced in three-dimensional space. The grammatical categories of movement and space do not belong to the traditional set of linguistic features encountered in spoken languages. Additionally, grammatical information may be conveyed non-manually, through facial gestures, such as head tilt, raised or lowered eyebrows, eye gaze etc. In sign language research, grammar has to be understood in a broad sense, encompassing much more than just word order and inflection. Grammar, i.e. the relations between individual signs, shows us how the Deaf categorize the world through their language.

## 2. ICONICITY IN POLISH SIGN LANGUAGE

The term *iconicity* is meant to refer to the situation in which the form of the word, sign or linguistic structure conveys the desired meaning by somehow resembling the denotation. As noted by Sebeok (1979), iconic signs need not be exclusively visual, they can as well be auditory, olfactory, gustatory, and tactile (see also Eco (1976)). Visual iconicity has received a lot of attention from scholars working on sign languages (see e.g. Taub (2001)). Cormier (2007) treats the phenomenon in question as a manifestation of a more general property of sign languages, which she refers to as isomorphism, i.e. a close relationship between form and meaning.

Although the fact that numerous lexical and grammatical phenomena of sign languages are motivated iconically is not questioned by modern linguistics, it is not uncontroversial to what extent iconicity should be viewed as one of the defining features of sign communication. The issue at hand has been subject to much debate in the last few decades. It seems clear to most researchers that the iconic dimension of sign languages is independent from natural gesturing. As shown by Szczepankowski (1999), only a small subset of kinetic gestures used by hearing people have their exact equivalents in the lexicon of PSL. Interestingly, some gestures of this type are used in PSL with a completely counter-intuitive meaning, e.g. the gesture of saluting used in the army would be interpreted as the sign for 'toilet'. As demonstrated by Klima and Bellugi (1979) and Fabisiak (2010a), among others, hearing non-signers can correctly guess the meaning of only more or less 20% of signs used in sign languages. It should also be stressed that, having been told the meaning of particular signs, hearing subjects in the study conducted by Fabisiak (2010a) found 65% of presented signs iconic. In order to emphasize the fact that sign languages are not simply mimetic, in the sense of being grounded in non-linguistic gesturing, many contemporary linguists tend to concentrate on those properties of sign languages that are also crucial for spoken languages (such as their grammatical nature) and understate the importance of those characteristics that are not typical for oral communication – see e.g. Rée (1999). The implicit aim of this line of research (dubbed the 'iconicity fallacy' by Thoutenhoofd (2000)) seems to be to avoid the following possible interpretation: being iconic means being non-conventional and non-arbitrary, which in turn means being non-linguistic (Saussure's (1916) view on arbitrariness as the crucial bond uniting the signifier with the signified has been a fundamental assumption of modern linguistics for almost a century now).

However, whatever the interpretation of the status of iconicity in language may be, it seems justified to assume that no adequate linguistic analysis of signed communication can be carried out without a detailed description of those signs and structures that involve iconic motivation. As PSL is one of lesser studied sign languages, there are very few papers dealing with the iconic aspects of that language. In his brief overview of the problem in question, Mrozik (2006) states that iconic signs are very common in PSL and relates this fact to the generalization that the visual-spatial communication channel has an impact on the frequency of different types of signs (cf. Peirce's (1932) taxonomy of signs) - symbols, deictic references or icons, with the iconic type being significantly more frequent in sign language than in spoken language. Mrozik (2006) further distinguishes three types of iconicity in PSL, each based on a different kind of visual similarity between a sign and its denotation. According to this typology, iconicity may involve similarity in terms of shape, spatial relations or various aspects of movement (path, speed, etc.). The first of these types is exemplified by the sign for 'house' (hands forming a pitched roof); the second, by the expression 'a square surrounded by houses' (the sign 'house' is repeated several times, each time in a different location around an imaginary square); and the third, by verbs of movement (such

as 'drive', which conveys not only the basic meaning of going by car but may also imitate the manner of movement).

A more detailed classification of various aspect of PSL iconicity is presented in Fabisiak (2010a) and (2010b). In the remaining part of this section, we will outline the main points of the analysis proposed in those papers. In order to illustrate the scope of the phenomenon under consideration, let us first say that Fabisiak (2010a) distinguishes the following types of iconic signs in PSL:

- deictic (directly pointing to their referents, e.g. 'I', 'nose' or 'hair'),
- locative (pointing to the location of their referents or to the location associated with their referents, e.g. 'hearing', 'deaf' or 'to watch'),
- vectorial (pointing to well-established directions, e.g. 'north', 'right' or 'down'),
- reflecting the manner of use (imitating activities associated with the use of various objects, e.g. 'soap', 'towel' or 'coffee'),
- metaphoric (based on conceptual analogies between two objects or ideas, e.g. 'rich' – depicting a pocket full of money, 'to know' – suggesting knowledge is something contained in the head, or 'communication' – showing the flow of information between the sender and receiver),
- metonymic (referring to their referents via something intimately associated with the referents, e.g. 'man' imitating shaving, 'Poland' based on the sign of the Christian cross, i.e. alluding to the predominant religion in Poland, or 'Warsaw' related to the breasts of a woman, as the coat of arms of the city of Warsaw depicts a half-naked siren),
- morphic (imitating the shape or another easily perceivable property of their referents, e.g. 'house', 'flower' or 'sun'),

- physiognomic (imitating the appearance of their referents, e.g. 'cat', 'cow' or 'snail'),
- relational and quantitative (referring to the size or quantity of their referents, e.g. 'tall', 'far' or 'many'),
- movement-related (imitating the movement associated with the action referred to, e.g. 'to drink', 'to read' or 'to give'),
- expressive (imitating the facial expression or gestures associated with the action referred to, e.g. 'to cry', 'to laugh' or 'to ask'),
- employing classifiers (based on manual classifiers representing the entities involved in the action referred to, e.g. 'to walk', 'to run' or 'to fall'),
- dactylographic (related to the letters of the corresponding words in written Polish, e.g. 'May,' 'son' or 'God').

Due to space limitations, we cannot discuss each of theses classes in detail. Our aim is more modest: to present examples of the influence of iconic motivation on the lexicon and grammar of PSL. It should be noted here that, being three-dimensional, the very communication channel of visual-spatial languages forces the use of iconic relations, such as placement of signs in particular locations in the signing space. When discussing this characteristic of signed communication, Cormier (2007) talks of the topographic use of the signing space, which reflects the real-world locations of the objects referred to. The place of articulation of a sign often has an iconic motivation. Signs expressing emotions, such as happiness or anger, are typically produced on the chest, whereas signs related to cognitive processes, such as thinking or understanding, are produced on the temple (cf. e.g. Kyle and Woll (1985)). This could be interpreted as the phonological aspect of iconicity - the feature of the place of articulation is one of the contrastive diacritics of a sign (in sign linguistics, the term

phonology is used to refer to the study of sublexical features with distinctive functions). There are numerous examples of iconicity in the phonological structure of PSL. Most importantly, they include non-manual sublexical features, such as the direction of sight, eye contact or head and body movements. Iconicity also affects the inflectional properties of PSL, with the notable example of the phenomenon of verb agreement - many verbs seem to be inflected for person by incorporating their subjects and objects, e.g. 'I give you (something)' is signed in the opposite direction than 'you give me (something)'. Plural marking is another instance of an inflectional process based on iconic principles: plural forms are often signed as reduplicated forms of the basic shape of the sign being pluralized. Last but not least, iconic basis could also be traced in many syntactic phenomena of PSL. Relevant examples include questions, negative sentences and imperatives, all of which are distinguished from affirmative sentences through non-manual markings, such as raised/lowered eyebrows, frowning, wide opening of eyes, direct eye contact, head tilts and shakes, and expressive facial gestures. Similar means serve the purpose of indicating clausal subordination. The interaction between syntax and iconicity reaches beyond individual sentences. Whole narratives may also be iconically-driven. In this respect, the situation in PSL is not different from other sign languages. Liddell (2003) discusses a narrative in ASL (American Sign Language) devoted to the inseparability of language and culture, in which the two phenomena are presented as a married couple. The signer states that if language and culture were divorced (which is represented iconically, with two handshapes beginning together then separating), they would both die. This potential consequence is indicated as follows: first, one of the signer's hands drops and rolls over dead, then the other one. Note that it is not only a particular sign ('divorce') that has an iconic basis but also the whole narration. To sum up the facts presented in this section, it seems justified to say that iconicity is one of the most important cognitive forces underlying the lexicon and grammar of Polish Sign Language (or even sign languages in general).

# 3. ARE ICONICITY AND ARBITRARINESS MODALITY-DEPENDENT?

It could be considered a platitude to say that the threedimensional visual-spatial modality has a higher potential of visual iconicity than the vocal-aural modality, limited by its one-dimensionality. Still, it does not necessarily mean that the iconicity of visual imagery is more easily perceivable than that of the vocal type. Of course, iconic words are virtually absent from spoken language. Exceptions to this generalization include onomatopoeia, i.e. words that imitate the sounds they stand for (e.g. the English verb meow or the Polish verb miauczeć that imitate the noise made by cats), and phonesthemes, i.e. recurrent sub-lexical and sub-morphemic clusters of phonemes, associated with a specific meaning (e.g. the English phonestheme gl-, which occurs in a number of words related to light and vision, like glow, glitter, glisten, glare, gleam, glimmer, glint etc.). However, iconicity as such is definitely not a marginal phenomenon in spoken languages (cf. Wescott (1971)). For instance, similarly to what happens in many sign languages, iconic motivation can take the form of reduplication, i.e. a morphological process by which the root of a word is repeated in order to convey a semantico-grammatical function, such as plurality (e.g. orang 'human being' > orang-orang 'human beings' in Indonesian, cf. Macdonald (1976)) or intensification (e.g. nononga 'long' > nonononga 'very long' in Daga, cf. Murane (1974)). The process in question seems to be based on the following cognitive mechanism: intensity of a feature is positively correlated with complexity of structure (the more intensive a feature, the more

structure should express it) – for a more detailed discussion of reduplication, see Moravcsik (1978).

It is worth noticing that Peirce (1932) distinguishes two types of icons: an iconic image is a single element that (visually or otherwise) resembles its denotation, whereas an iconic diagram is a complex icon, whose parts are related to each other in such a way that the relationship resembles the relationship between the extralinguistic objects to which these parts refer. The latter kind of iconicity could be viewed as syntagmatic in nature.

Iconic motivation in the diagrammatic sense is well-attested in many spoken languages. According to some scholars, it should be viewed as one of the most important conceptual bases of syntax (see e.g. Jakobson (1965), among others). Moulton and Robinson (1981) use the term iconic syntax to refer to the situation in which the arrangement of lexemes in a sentence reflects or "looks like" the arrangement of their referents. They illustrate this model with an example of a radio announcer at a car race: the order, spacing and pace of uttering the names of the racers going by the press box corresponds to the real-time situation on the track. In other words, the organization of our utterances tends to be based on the actual temporal organization of the events that we are talking about. Therefore, we prefer to say: "I ate dinner, brushed my teeth and went to bed", instead of "I went to bed, brushed my teeth and ate dinner", as a reply to the question "What did you do last night?". Theoretically, linguistic coordination is a kind of addition operation, in which A + B + C should be equal to C + B + A. In fact, examples such as the one above show that linearization of speech is rooted in extra-linguistic factors, mimicking the real-world experience of the speaker. Similarly, Diessel (2005) points out that the placement of subordinate temporal clauses is based on temporal iconicity. He shows that the linearization of clauses in a complex sentence reflects the temporal order of the events that they refer to (see also Haiman (1985), Kortmann (1991)). Subordinate clauses

describing an event that takes place prior to the event described by the main clause tend to precede the main clause, whereas clauses referring to a posterior event typically occur sentence-finally. Diessel (2005) illustrates the phenomenon in question with sentences such as (1) and (2), which are much more frequent in natural speech than sentences such as (3) and (4):

- (1) After the moon went down the night was pitch black.
- (2) They've started to have coffee together in the morning before I get out of bed.
- (3) The night was pitch black after the moon went down.
- (4) Before I get out of bed they've started to have coffee together in the morning.

Diessel's (2005) analysis shows that at least some principles of clause combining must be viewed are driven by temporal iconicity. Similar examples could easily be multiplied. Therefore, it seems that iconicity is present in all languages, both spoken and signed.

However, Thoutenhoofd (2000) argues that the iconic character of the visual modality makes sign languages substantially different from spoken ones. His argument is based on the observation that sign languages can develop quite rapidly whenever a new deaf community is formed, which could be interpreted as a sort of creation "ex nihilo". A well-documented example of such a situation is the birth of Nicaraguan Sign Language, which was spontaneously developed by deaf children in a number of schools in Nicaragua in the 1970's and 1980's (cf. Kegl (1994), Senghas (1994)). According to Thoutenhoofd (2000), it is only thanks to the "common-sense referentiality of iconic forms" that a completely new system of signs can arise and be acquired in a relatively short time. As noted by Givón (1989), "all other things being equal, a coded experience is easier to store, retrieve and communicate if the code is maximally isomorphic to the experience".

The arguments put forward by Thoutenhoofd (2000) seem to touch upon a more general problem of the role of iconicity in language development. Grice (1989) argues that all systems of noniconic signs are historically derived from earlier iconic systems. According to this line of reasoning, iconicity underlies primitive non-conventional signaling and is typically lost as a result of conventionalization. This model could be valid both phylogenetically and ontogenetically. It is not surprising that spontaneous iconic gesturing plays a much more important role in child language than in adult language. For example, Capirci, Iverson, Pizzuto and Volterra (1996) show that, in the transition from one-word utterances to more complex syntagms, the child necessarily goes through an intermediate phase of gesture-word combinations. Thus, the presence of gestures in children's communication seems to facilitate the development from pre-linguistic to linguistic behaviors.

The above applies to both signed and spoken languages. It should be emphasized here that, as observed by Frishberg (1975), the iconic basis of linguistic structure in sign languages is prone to gradual diachronic change in the direction of arbitrariness, formal reduction and conventionalization. Iconically motivated elements which are frequently used tend to get simplified (reduced to those features that function as contrastive diacritics) and systematized in a step-by-step fashion by assimilation and lexicalization processes, such as the loss of redundant body or facial movement. For example, ASL compound signs are often merged into simpler forms, as in the case of the sign 'home', which historically consisted of two separate signs (meaning 'eat' and 'bed'), but was reduced by modifying its articulation from single touches at two distinct locations to two touches at one location. Such changes leading to coalescence and formal attrition make the visual motivation of signs less and less transparent, up to the point when it becomes completely opaque. Frishberg (1975) argues that this process is instrumental in the creation of full-fledged linguistic systems of signs, as opposed to random sets of iconic gestures, devoid of any systematic relationships. This analysis is in line with Zipf's (1935) observation that linguistic elements with a high frequency of usage tend to be expressed in a reduced (opaque) form. He treats this regularity as resulting from a least-effort mechanism (if a concept can be conveyed by means of a relatively simple form, there is no need for a more complex form). In other words, loss of iconicity due to conventionalization may be viewed as driven by the principle of the most economical expression.

The same trend from more iconic to more arbitrary was noted by Tomaszewski (2006), who observed conventionalization processes similar to those discussed by Frishberg (1975) in the linguistic behavior of Polish homesigners, i.e. deaf children who do not know Polish Sign Language but communicate gesturally with their hearing families. Tomaszewski (2006) examined changes in their communicative techniques resulting from exposure to other homesigners in a kindergarten context. He noticed an expected development of the children's lexical competence but also various adaptations and simplifications, such as transfer of movement from body language to the hands or elimination of one of the hands from symmetric signs. The changes in question could be illustrated with a telling example of the gesture sign for 'dog'. At the beginning of their interaction, homesigners produced this sign in a pantomime fashion (both hands raised to the face level, forward movements of the body, accompanied by an angry facial expression, very much like in a theatrical performance of an attack by an aggressive dog). After some time, the way the sign was produced changed quite significantly: the movement was transferred from the body to the hands, got faster, shorter, and in a way conventionalized ("fossilized") in the sense of being done exactly twice (rather than several times). Additionally, the facial expression of anger was abandoned. Tomaszewski (2006) explains this clear loss of iconic properties as driven by the economy of expression.

Interestingly, it seems that once a sign is conventionalized and integrated into the linguistic system of a given sign language, it is no longer processed mentally as an icon, but rather as a bundle of arbitrary features. Bellugi, Klima and Siple (1975) describe a shortterm memory experiment, in which deaf subjects were asked to recall ASL signs which they had been presented on a screen. The experiment showed that short-term memory mechanisms of lexical retrieval are not based on iconicity. Certain intrusion errors that occurred in the responses were related to the formal characteristics (articulatory/phonological features) of particular signs, and not on their visual properties. For instance, the sign for 'candy' was mis-recalled by one of the subjects as the sign for 'apple'. The explanation of this error seems straightforward in light of the fact that the two signs differ in only one articulatory feature related to hand configuration, namely the position of the index finger. Other features of the sign presented, such as the place of articulation and the type of movement, were preserved in the sign recalled. Similarly, 'noon' occurred as an error for 'tree' because, again, the two signs differ in only one feature, in this case, movement ('noon' is still, whereas 'tree' moves). This shows that signs are most likely coded and processed as bundles of arbitrary articulatory features, and not as mimetic images. In other words, iconicity does not seem to play any role in the memorization of conventionalized signs.

Emmorey, Grabowski, McCullough, Damasio, Ponto, Hichwa and Bellugi (2004) used positron emission tomography to examine if the fact that signs denoting tools in ASL usually have a clear iconic motivation (a handshape representing the human hand holding a tool) results in a different activation of the neural systems involved in lexical retrieval, when compared to non-iconic signs. Surprisingly, it turned out that there are no such differences, which suggests that the human brain does not distinguish between non-iconic and iconic signs, even if the latter are indistinguishable from pantomimic gestures. This observation could possibly be explained in

the following way: as soon as an icon becomes part of the linguistic system of a given sign language, the iconic motivation of its form ceases to matter any more – it simply becomes an arbitrary sign, interpretable only within the limitations imposed by the system.

As pointed out by Mrozik (2006), among many others, being iconic does not make a sign non-arbitrary. Even if the motivation of a given icon becomes transparent (or at least easy to decipher) once the meaning is given, no icon can be thought of as based on a simple one-to-one relation between form and meaning. Iconic elements are as conventional as non-iconic ones, i.e. one must learn their shape, instead of just creating them ad hoc. Mrozik (2006) illustrates this problem with the example of different words used for the noise made by dogs: woof in English, hau in Polish, am in Lithuanian. All of them are usually considered iconic due to their onomatopoeic character, but this does not mean that their interpretation is in a way language-independent. In other words, a speaker of English would not be able to guess the meaning of the Lithuanian word am only on the basis of its phonetic shape. Similarly, if lexical elements used in sign languages were not as arbitrary and languagespecific as spoken words, signed utterances would be easily understandable for non-signers, which is obviously not the case (usually, an outside observer is not even able to guess the general topic of a signed dialogue).

Note that arbitrary signs used in sign languages should be distinguished from non-linguistic pantomimes accompanying this kind of communication. Hohenberger (2007), among others, points out that signed narratives are often interspersed with spontaneous gestures and pantomimes. They include both paralinguistic signs that are created on the spur of the moment for the purpose of a particular communicative context, as well as various iconic modifications of well-established signs, e.g. changes in the manner of movement which may signal that the action described by the sign was performed slowly, quickly, repeatedly etc. We could also

include here all kinds of non-manual (facial) indicators of emotions or value judgments, such as those that may change the interpretation of the sign 'girl' into 'pretty girl' or 'ugly girl' (cf. Fabisiak (2010b)). Elements of this type are also common in oral communication, when co-verbal gesturing or facial expressions are used as a kind of illustration of what is being said. But the phenomenon in question poses a serious problem when it comes to delimiting what is linguistic in sign language and what is not. Although it is virtually impossible to draw a clear line between linguistic signing and paralinguistic gesturing, the dichotomy in question should be kept in mind when discussing the issue of iconicity. Ad hoc gesturing is obviously rooted in human sensory experience, and hence non-arbitrary. As for its role in the grammatical system, non-linguistic gesturing in sign languages could be compared to certain suprasegmental prosodic features in spoken languages, such as intonation, pitch, timbre, loudness, rhythm, or (non-phonological) vowel length. Factors of this type are not distinctive in terms of phonological features, however, they may play an important role as meaningful elements in oral communication. For example, when reading out a dialog between the big bad wolf and Little Red Riding Hood to a child, parents will usually lower/raise their pitch in order to make it clear who says what. Similar modifications are possible on other levels of prosodic suprastructure, e.g. longer than usual pronunciation of words may indicate that the action referred to was very slow, e.g.: The train was going veeery slooowly. Such modifications are clear examples of aural iconicity. They definitely affect the interpretation of a given utterance but are not part of the linguistic (phonological) system in a narrow sense. Loudness or pitch cannot be thought of as binary features; they are gradient, similar to various paralinguistic gestures and sign modifications in sign languages.

#### 4. CONCLUSION

We believe there are many convincing arguments for treating iconicity as a cognitive mechanism underlying various aspects of both oral and visual communication. Therefore, iconic motivation as such does not seem to be a defining feature of sign language. Once gestures enter the language system, they get conventionalized and become arbitrary, even if visually motivated. In other words, the imitative potential of gestural signs should not be considered a plus/minus feature, absent from the vocal-aural modality. The iconic grounding of linguistic signs seems to be a relative rather than absolute characteristic (cf. Wescott (1971)). Its scalar nature is best described as a kind of continuum with full arbitrariness and full iconicity as two extremes (neither of them attested in natural languages). As shown by Frishberg (1975) and Tomaszewski (2006), among others, various phenomena in sign languages may be interpreted as involving a change in the location along that continuum. Interestingly, such changes seem to be unidirectional from more iconic to more arbitrary. According to this line of reasoning, the fact that some grammatical categories in sign languages (such as, for instance, agreement) seem to exhibit a lesser degree of conventionalization than their equivalents in spoken languages may be interpreted as resulting from sign languages being relatively young (see Aronoff, Meir, Padden and Sandler (2005) for a similar conclusion). It could be assumed that in the course of diachronic development, many aspects of the grammatical structure of sign languages will move along the iconicity-arbitrariness continuum, getting conventionalized in ways analogous to those known from the history of spoken languages.

#### REFERENCES

- Aronoff, Mark, Irit Meir, Carol Padden and Wendy Sandler (2005), "Morphological universals and the sign language type", in: Geert Booij and Jaap van Marle, eds., *Yearbook of Morphology 2004*, Dordrecht: Springer, pp. 19–39.
- Bellugi, Ursula, Edward S. Klima and Patricia Siple (1975), "Remembering in signs", *Cognition* 3 (2), pp. 93–125.
- Capirci, Olga, Jana M. Iverson, Elena Pizzuto and Virginia Volterra (1996), "Gestures and words during the transition to two-word speech", *Journal of Child Language* 23 (3), pp. 645–673.
- Cormier, Kearsy (2007), "Do all pronouns point? Indexicality of first person plural pronouns in BSL and ASL", in: Pamela M. Perniss, Roland Pfau and Markus Steinbach, eds., *Visible variation: Comparative studies on sign language structure* (Trends in linguistics Studies and monographs: 188), Berlin, New York: Mouton de Gruyter, pp. 63–101.
- Diessel, Holger (2005), "Competing motivations for the ordering of main and adverbial clauses", *Linguistics* 43 (3), pp. 449–470.
- Eco, Umberto (1976), *A theory of semiotics* (Advances in semiotics), Bloomington: Indiana University Press.
- Emmorey, Karen (2002), Language, cognition, and the brain: Insights from sign language research, Mahwah, NJ: Lawrence Erlbaum Associates.
- Emmorey, Karen, Thomas Grabowski, Stephen McCullough, Hanna Damasio, Laurie Ponto, Richard Hichwa and Ursula Bellugi (2004), "Motor-iconicity of sign language does not alter the neural systems underlying tool and action naming", *Brain and Language* 89, pp. 27–37.
- Fabisiak, Sylwia (2010a), "Imitacyjność w polskim języku migowym", *Poradnik Językowy,* 6, pp. 62-79.
- Fabisiak, Sylwia (2010b), "Przejawy imitacyjności w systemie gramatycznym Polskiego Języka Migowego", *LingVaria*, 1 (9), pp. 183–192...
- Frishberg, Nancy (1975), "Arbitrariness and iconicity: Historical change in American Sign Language", *Language* 51 (3), pp. 696–719.
- Givón, Talmy (1989), Mind, code and context: Essays in pragmatics,

Hillsdale, NJ: Lawrence Erlbaum Associates.

Grice, H. Paul (1989), Studies in the way of words, Cambridge, MA:

Harvard University Press.

Haiman, John (1985), ed., Iconicity in syntax: Proceedings of a symposium on iconicity in syntax, Stanford, June 24–26, 1983 (Typological studies in language: 6), Amsterdam, Philadelphia, PA: John

Benjamins Publishing Company.

Hohenberger, Annette (2007), "The possible range of variation between sign languages: Universal Grammar, modality, and typological aspects", in: Pamela M. Perniss, Roland Pfau and Markus Steinbach, eds., *Visible variation: Comparative studies on sign language structure* (Trends in linguistics – Studies and monographs: 188), Berlin, New York: Mouton de Gruyter, pp. 341–383.

Jakobson, Roman (1965), "Quest for the essence of language", Diogenes

13 (51), pp. 21–37.

Kegl, Judy (1994), "The Nicaraguan Sign Language project: An overview", Signpost 7 (1), pp. 24–31.

Klima, Edward S. and Ursula Bellugi (1979), The signs of language, Cambridge, MA: Harvard University Press.

Kortmann, Bernd (1991), Free adjuncts and absolutes in English: Problems of control and interpretation, London: Routledge.

Kyle, Jim G. and Bencie Woll (1985), Sign language: The study of deaf people and their language, Cambridge, New York, NY: Cambridge University Press.

Liddell, Scott K. (2003), Grammar, gesture, and meaning in American Sign Language, Cambridge, New York, NY: Cambridge University

Press.

Macdonald, R. Ross (1976), *Indonesian reference grammar*, Washington, DC: Georgetown University Press.

Moravcsik, Edith A. (1978), "Reduplicative constructions", in: Joseph H. Greenberg, Charles A. Ferguson and Edith A. Moravcsik, eds., *Universals of human language*, vol. 3: *Word structure*, Stanford, California: Stanford University Press, pp. 297–334.

Moulton, Janice and George M. Robinson (1981), *The organization of language*, Cambridge, New York, NY: Cambridge University Press.

Mrozik, Maciej (2006), "Seeing the heart of language", Academia: The

magazine of the Polish Academy of Sciences 2 (10), pp. 33-35.

Murane, Elizabeth (1974), Daga grammar: From morpheme to discourse (Summer Institute of Linguistics publications in linguistics and related fields: 43), Norman, OK: Summer Institute of Linguistics of the University of Oklahoma.

Peirce, Charles Sanders (1932), Collected papers of Charles Sanders Peirce, vol. 2: Elements of logic, Cambridge, MA: Harvard University Press.

Perlin, Jacek (1993), Lingwistyczny opis polskiego języka migowego, Warszawa: Uniwersytet Warszawski.

Rée, Jonathan (1999), I see a voice: Language, deafness and the senses – A philosophical history, London: Harper Collins.

Sandler, Wendy and Diane Lillo-Martin (2006), Sign language and linguistic universals, Cambridge, New York, NY: Cambridge University Press.

Saussure, Ferdinand de (1916), Cours de linguistique générale, Lausanne-Paris: Payot.

Sebeok, Thomas A. (1979), *The sign and its masters*, Texas: The University of Texas Press.

Senghas, Ann (1994), "Nicaragua's lessons for language acquisition", Signpost 7 (1), pp. 32–39.

Siple, Patricia (1978), ed., *Understanding language through sign language research*, New York: Academic Press.

Szczepankowski, Bogdan (1999), Niestyszący – głusi – głuchoniemi: Wyrównywanie szans, Warszawa: Wydawnictwa Szkolne i Pedagogiczne.

Świdziński, Marek and Tadeusz Gałkowski (2003), eds., Studia nad kompetencją językową i komunikacją niesłyszących, Warszawa: Uniwersytet Warszawski, Polski Komitet Audiofonologii, Instytut Głuchoniemych im. ks. Jakuba Falkowskiego.

Taub, Sarah F. (2001), Language from the body: Iconicity and metaphor in American Sign Language, Cambridge, New York, NY: Cambridge University Press.

Thoutenhoofd, Ernst Daniël (2000), "Philosophy's real-world consequences for deaf people: Thoughts on iconicity, sign language and being deaf", *Human Studies* 23 (3), pp. 261–279.

Tomaszewski, Piotr (2006), "From iconicity to arbitrariness: How do

gestures become signs in peer-group pidgin", *Psychology of Language and Communication* 10 (2), pp. 27–59.

Wescott, Roger W. (1971), "Linguistic iconism", Language 47 (2), pp. 416–428.

Zipf, George Kingsley (1935), The psycho-biology of language: An introduction to dynamic philology, Boston: Houghton Mifflin Company.

Представляется бесспорным фактом то, что естественные языки жестов отличаются всеобъемлющей символьностью. По мнению некоторых ученых, эта особенность делает лексическую и грамматическую системы языков жестов в значительной степени отличной от таковых систем в устной коммуникации. По мнению других, несмотря на то, что многие явления, встречающиеся в языках жестов, следует отметить, действительно имеют символьную мотивацию, когнитивная база как устной, так и жестовой коммуникации в точности совпадает. Цель настоящей работы: представить обзор наиболее значимых аспектов символьности в польском языке жестов. Мы также попытаемся сопоставить понятие символьности с понятием произвольности и оспорить то, что наличие символьной мотивации не является позитивной либо негативной особенностью, отличающей пространственно-зрительные языки от вокально-слуховых. Вместо этого мы предпочитаем думать о символьности как об одном из многих универсальных когнитивных механизмов, влияющих на речевые способности человека, но не определяющих их.