In Search of Evidence for Metonymically Motivated Innovative Nouns in Children's Speech

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The aim of this paper is to present a wide spectrum of motivational factors involved in the formation of innovative nouns by Polish and English-speaking children. The paper examines both language dependent motivational factors, i.e. relationship between target and source (Radden and Panther 2004) and language independent motivational factors, such as an ecological niche, economy and perceptual salience. Consequently, it is argued that all the novel nouns are metonymically motivated irrespective of the language used, and the derivational mechanism relied on (be it deverbal nominalization or compounding). In order to show the key role of motivation in the process of innovative nouns formation the Idealised Cognitive Model proposed by Lakoff (1987) has been adopted.

1. Introductory

The aim of this paper is to provide partial evidence that many neologisms in children's speech are metonymically motivated. For our purposes we shall rely basically on the language corpus gathered in the course of longitudinal studies carried out during the years 2000-2002, concentrating on innovative nouns formed by English and Polish-speaking children. However, before the discussion commences, let us briefly comment on the issue of motivation in language in order to provide a broader background for the investigations to follow.

To begin with, the notion of motivation is usually contrasted with that of arbitrariness. Paradoxically, it was Ferdinand de Saussure, who put forward the principle of the arbitrariness of the linguistic sign, that may be said to have pioneered the study of motivation in language: "There is no language in which nothing is motivated, and our definition makes it impossible to conceive of a language in which everything is motivated. Between the two extremes - a minimum of organisation and a minimum of arbitrariness – we find all possible varieties" (de Saussure 1916: 133). Nevertheless, de Saussure's approach to motivation differs from modern cognitive theories, because the Swiss linguist views motivation as a limiting case of arbitrariness, whereas cognitive linguists tend to regard motivation as the norm and view arbitrariness as the last resort (Lakoff 1987). For example, Heine (1997: 3) argues that since "human behaviour is not arbitrary but […] driven by motivation," language structure, which is a product of human behaviour, "must also be motivated."

2. Linguistic and Extralinguistic Motivational Factors

In recent linguistic research a wide variety of theoretical standpoints on the issue of motivation have been adopted[1] and – consequently – there is no definitional consensus as to this notion. As Radden and Panther (2004) have recently observed, each of these approaches

contains the same important elements, that is non-arbitrary relationship between the form and meaning, iconicity, salience and metonymy. According to Lakoff (1987: 107,148), ideally all these elements need to be integrated into a unified theory of motivation. Such an attempt was undertaken by, for example, Radden and Panther (2004) who have proposed that "A linguistic unit, i.e. target (form and/or content) is motivated if some of its properties are shaped by a linguistic source (form and/or content) and language-independent factors." For the purpose of our further considerations we intend to adopt this definition because – apart from its universality – it is also comprehensive, as it is capable of embodying several aspects of motivation both of linguistic and extra-linguistic nature.

To start with, we intend to outline language-dependent factors, i.e. *source* and *target*. *Source* is considered to be a basis serving as a potential trigger for a motivational process to operate on, i.e. the form and/or the content of a linguistic unit. On the other hand, *target*, which may again become the form and/or the content of a linguistic unit, is understood as the final stage of a motivational process. For the purpose of our discussion we shall limit our considerations to the form, i.e. target that is motivated by the content, i.e. source, which is the most typical kind of motivation in the language, also as far as the child language is concerned.[2] Thus, for example, an innovative English noun *bear-son*[3] is an example of the coinage in which the content motivates the form, i.e. the message the child wants to express directly influences the morphological shape the neologism. In other words, the fact that a child wants to express the meaning: 'the bear who is somebody's son' leads to the formation of the root compound *bear-son*. Consequently, the content of the source shapes the form of the target.

As far as language-independent factors are concerned, Radden and Panther (2004) propose that these are extra-linguistic motivational factors, such as ecological motivation, perceptual motivation, communicative motivation, and others.[4] At this point let us focus on all these language independent factors – one by one – and then an attempt will be made to provide evidence that they trigger the formation of coinages in children's speech. Although we are of the opinion that it is **metonymy** that is largely responsible for the emergence of neologisms in children's speech, there is obviously no denying that motivational factors usually do not function in isolation but rather they tend either to apply jointly or to compete with one another. Therefore, in the following section we shall focus on extra-linguistic motivational factors with a view to showing the way in which they spur the formation of innovative words in children's speech.

To begin with, let us concentrate on the so-called ecological motivation. Ecological motivation is regarded as the motivation of a linguistic unit due to its place, or **ecological niche** within a system. In the realm of linguistics, the terms **ecology** and **ecological niche** were introduced by Lakoff (1987: 487). In short, the notion of ecology proposes that a linguistic system contains slots, or, in other words, niches that are to be filled with linguistic units. Relating this concept to children's speech, it is evident that ecological motivation may be regarded as the initial trigger for the formation of numerous coinages because children feel the constant to need to name things contained within their closest environment for which they do not know the relevant names, as they have not acquired them yet. In this sense the language of children abounds in slots that need to be filled. Therefore, we are entitled to say that ecological motivation constitutes the original stimulus for the coinages formation.

Another kind of motivation that plays a key role in the creation if lexical innovations in the child language is perceptual motivation. As already noticed by Kant, *we see things not as they are but as we are* (Kant 2001). This means that our perception of the world is

inseparable from our experience and cognition. According to Lakoff (1987), the principles of perception enable us to dispose of irrelevant information, supply missing information, and, in this way, structure the sensory stimuli into a meaningful gestalt. Obviously, many of the principles that are responsible for the structuring of perception also motivate language structure. These are: attention to salience, recognition of similarity and viewing arrangement.[5]

As far as salience in the formation of neologisms is concerned, it is undoubtedly of cognitive nature.[6] By this we mean that children are particularly sensitive to the concepts that the word expresses which are salient from the cognitive point of view. For example, from the Polish coinage *zasuwanka* formed from the verb *zasuwać*, i.e. 'to do up' to convey the meaning 'zip' we may infer that for the child the most salient feature of the zip is that it is done up, hence the innovative noun *zasuwanka*.[7]

With regard to the recognition of similarity, it is regarded as the human ability to view different objects/phenomena/actions as similar and – as a result – to categorise and group them together. The areas where recognition of similarity is relevant and, because of that, contributes to motivating linguistic structure are as follows:

1. **Categorisation and generalisation.** These processes consist in regarding separate items as being similar, and , as a result, grouping them together as members of the same category, or the same abstract schema. For example, Polish-speaking children in the course of their grammatical development categorise nouns ending in suffixes *-arz, -nik, -czek, -czka* as agent-forming suffixes and, consequently, use them to coin innovative nouns denoting agents, such as *obcina-czka* from the verb *obcinać*, i.e. 'to cut' for 'a hairdresser', or *aresztow-nik* from the verb *aresztować*, i.e. 'arrest' for 'the policeman who is arresting some criminals at the moment'.

2. **Iconicity**. This phenomenon consists in perceiving a similarity between the phenomena in conceived reality and the linguistic expressions denoting them. A mechanism of this kind may be observed in the example of English-speaking children coining innovative compounds in which the first element always distinguishes a particular item from other items, whereas the second element puts the item in question within a certain class.[8] For example, in the case of the compound *boy-lion*, its first element *lion* places the concept expressed within the class of lions, whereas its second element *boy* distinguishes it from other lions belonging to the same class, such as *girl-lions, mummy-lions*, etc. Thus, the form of the compound reflects the speaker's cognitive set-up.

The next type of motivation targeted here is communicative motivation. Since the main purpose of language is communication, there is a strong tendency to make communicative acts economical and perspicuous (see, e.g. Kleparski 1983). Grice (1975) has formulated the following two maxims: *Be perspicuous* and *Avoid ambiguity and vagueness.* Thus, the content of the message should be presented with clarity and it should also be coded in such a way that a hearer is capable of interpreting it with minimal processing effort. The long-recognised principle of economy is well conspicuous in the process of the coinages formation in children's speech, as they are much more economical than their adult counterparts. For example, the coinage *bear-hat* is more economical than its adult equivalent, i.e. 'the hat that looks like a bear', and it can easily be decoded. All in all, we maintain that the child language is characterised not only by the economy of decoding but also by the economy of encoding.

Lastly, it should be emphasised that motivation is a multi-factorial phenomenon, which means that a linguistic unit may be motivated by several factors, or these factors may

compete with each other. As far as the process of the formation of coinages is concerned, we may easily notice that both the co-operation and competition of several motivational factors may be observed. First of all, in the case of the formation of the majority of lexical innovation it is plain to observe that several motivational factors have been in operation. For example, if we consider the coinage *przekłujnik* from the verb *przekłuwać*, i.e. 'to prick' to denote' a needle for pricking ears', we may come to the obvious conclusion that it is:

1. Ecologically motivated: the coinage fills the niche in the child's linguistic system;
2. Perceptually motivated: the coinage makes use of the idea of the cognitive salience (the child's attention has been drawn to the fact that the primary function of this particular needle is to prick ears), and iconicity (the linguistic form exhibits similarity with the phenomenon existing in reality, i.e. the noun has been derived from the verb denoting its actual use);
3. Economically motivated: the coinage expresses the concept it stands for very synthetically.

Similar observations may be made with respect to the vast majority of coinages presented in this article, i.e. the formation of most of the coinages is motivated by several factors: ecological, perceptual and economical ones. On the other hand, sometimes it happens that motivational principles compete with each other. According to Panther and Radden (2004), a prime example of this competition is the conflict between economic and isomorphic motivation discussed by Croft (1990:192). When it comes to the lexicon, "the principle of economy motivates a minimal vocabulary, while the principle of isomorphism requires a distinct word for every distinct concept" (Radden and Panther 2004: 31)). When we consider children's lexicon, we come to the conclusion that the principle of isomorphism overrides the principle of economy. Our data clearly shows that children come up with lexical innovations for every word that expresses a distinct concept. For example, one of the Polish children studied for the purposes of this analysis has coined three innovative nouns to denote a construction worker:

(1) *remontow-nik* from *remontować*, i.e. 'to renovate' for 'pracownik brygady remontowej', i.e. 'worker of renovation team'

(2) *równi-arz* from *równać*, i.e. 'to level' for 'robotnik równający drogę', i.e. 'worker levelling the road'

(3) *rozkaź-nik* from *rozkazywać*, i.e. 'to order' for 'majster', i.e. 'foreman'

Likewise, one of the children studied by Clark (1993:99) has formed three innovative nouns to name three different kinds of a truck:

(4) 1. *a car-truck* for 'a truck carrying cars'
2. *a cow-truck* for 'a truck carrying cows'
3. *a shovel-truck* for 'a truck carrying shovels'

In our view, the reason for the priority of isomorphism over economy results from the fact that – generally speaking – young children are primarily concerned with and guided by the 'here and now' principle. Because of that, they associate every particular situation with one situation-specific lexeme. Therefore, the truck carrying cars becomes *a car-truck*, the

truck carrying cows becomes *a cow-truck*, etc. In the initial period of their linguistic and cognitive development they are unable to generalise about word meanings. A similar finding was made by Clark (1993), who noticed that before the child masters a particular lexical item, his language is characterised by underextensions, i.e. using a particular word in a very narrow context. For example, the lexeme *horse* may first be used to denote only toys not real animals. Hence, the high degree of lexical isomorphism in the child language.

On the whole, irrespective of the fact whether motivational factors co-operate or compete with each other, it is metonymy that plays a key role in the formation of neologisms. As Langacker (2000: 199) states: "Metonymy allows an efficient reconciliation of two conflicting factors: the need to be accurate, i.e. of being sure that the addressee's attention is directed to the target; and our natural inclination to think and talk explicitly about those entities that have the greatest cognitive salience for us." In what follows an attempt will be made to find and formulate evidence in support of this statement. In pursuit of this we will focus on the role of metonymy in the formation of innovative nouns both in English and in Polish. The main reason for choosing nouns to be targeted in our analysis is that in any language of the world the class of nouns constitutes the largest percentage of all coinages created by children because labels for objects and – in particular concrete objects – occur most frequently in their speech (Chmura-Klekotowa 1971, Clark 1987).

3. On English Innovative Metonymical Nouns

As far as the early period of linguistic development of English-speaking children is concerned, compounding is the most productive morphological operation for coining new nouns (Szymanek1998, Clark 1987). Compounds produced by children can be divided into **root compounds** formed from two or more nouns, as in *house-key* and **synthetic compounds** formed from one or two nouns combined with a verb, e.g. *push-chair* (Clark (1993)). As will be observed below, almost all the innovative nouns from our data belong to the category of root compounds:

(5)

metonymical compound	**adult counterpart**
bear-hat	'the bear that looks like a hat'
clown-boy	'the boy who is a clown'
bear-son	'the son who is a bear'
baby-elephant	'the elephant that is a baby'
baby-bottle	'the bottle meant for babies'
farmers-market	'the market meant for farmers'
daddy-seed	'the seed that is a daddy'
crumb-catcher	'the object capable of catching crumbs'
mama-bunny	'the bunny that is a mama'
Ringo grocery	'the grocery that belongs to Ringo'
boy-lion	'the lion that is a boy'
bobo-tea	'the tea for a baby'
water-boat	'the boat floating on water'
pee-pee cup	'the cup meant for peeing'

All these compounds represent motivated linguistic units in which the target, i.e. the form is motivated by the source, i.e. the content. In other words, the idea that the child wants to express has a direct impact on the form of the compound. In order to describe the relationship between the content of the message and its form let us pass onto the discussion of extra-linguistic motivational factors. Moreover, the body of the above presented compounds represents an example of the way in which children code messages they wish to express. According to Heine (1997), the content of the message should be presented with clarity and ought to be coded in such a way that the hearer can interpret it with minimal processing effort. In other words, economic motivation is of great importance. This is the case with the compounds formed by children, e.g. the compound *baby-bottle* can easily be decoded as 'the bottle meant for/used by the baby', *baby-elephant* can easily be understood as 'the elephant who is a baby', etc. Fair enough, these compounds are economical because they are much shorter than their adult counterparts. Economy, however, is not the only driving force in the process of the compounds' formation, as it is a representative example of the morphological process in which several motivational factors are involved. Apart from economy, factors of salience and metonymy are also at play.

In order to show the way cognitive salience influences the formation of compounds in English let us rely on the phenomenon of apperception first described by Rozwadowski. (Rozwadowski 1903, Tabakowska 2004). Cognitive psychology defines apperception as the process in the course of which the attention of the individual gets focused on a single point. All the rest of potentially perceptible elements lingering in the field of our perception are referred to as perceptions. (*Hutchinson Encyclopaedia* 2000). Although the concept of apperception has, only recently, won widespread popularity with the advent of cognitivism, it was first propounded for linguistics as early as at the beginning of the 20th century by Jan Rozwadowski, one of the most eminent Polish linguists, whose ideas have given rise to the modern cognitive theories of language. Rozwadowski's theory was strongly influenced by Wundt (1900), according to whom the process of perception consists of the ability to distinguish in every word, phrase or sentence the so called identifier and diversifier, where identifier is the identifying element, while diversifier is the distinguishing element. Thus, in the phrase *blue dress*, the identifier is *dress*, as it classifies the object within the class DRESS, whereas the diversifier is *blue* because it distinguishes this particular dress from other dresses.

According to Rozwadowski (1903), the perception of things and phenomena defined as apperception consists in the perception of the changing reality, accompanied by the relation of new facts to the facts that are already known from previous knowledge and experience. Several modern linguists have made use of the definition of apperception put forward by Rozwadowski. For example, according to Klimkowski (2005) apperception is the manifestation of iconicity and – because of that – we can talk about the so-called *apperceptive iconicity* because the process of the formation of words and phrases mirrors cognitive strategies of encoding their meaning. Klimkowski (2005) makes use of the Rozwadowski's theory for the analysis of the process of the compound formation in English. Among other things, he notices that – according to the great Polish scholar – the process of the phrase formation comprises two cognitive strategies:

1. Establishing similarity links between the already existent utterances (and their meanings).
2. Establishing distinction points between the already existent utterances and the new ones.

This amounts to saying that the second element of the compound is always the identifier, as it establishes similarity links between the already existent utterances, i.e. it classifies objects within a certain class:

(6) *daddy-seed* this object belongs to the class SEED;
crumb-catcher this object belongs to the class CATCHER;
baby-elephant this object belongs to the class ELEPHANT.

whereas their first element is the diversifier, as it establishes distinction points between the already existent utterances and the new ones, i.e. it distinguishes these particular objects from other kinds of objects:

(7) *daddy-seed* **not** e.g. *mummy-seed,* i.e. this object is daddy not, e.g. mummy,
crumb-catcher **not** e.g. *fly-catcher*, i.e. the function of this object is to catch crumbs not, e.g. flies,
baby-elephant **not** e.g. *boy-elephant*, i.e. this object is a baby not, e.g. a boy.

While analysing the above compounds one observes yet another aspect of perceptual motivation, namely iconicity. All these compounds are iconic as their structure reflects cognitive mechanisms adopted by children during their formation. In other words, the relationship between the modifying and classifying element is manifested in the form of the compound in which its second part, i.e. identifier represents the concept known from the child's previous knowledge and experience, whereas its initial part, i.e. diversifier is always related to the child's new experience or changing aspect(s) of reality.

No matter how important all the aforementioned motivational factors are, they are far from sufficient to account for the process of the formation of innovative nouns. As Langacker (2000: 16) argues, component structures of complex expressions correspond only to certain facets of them. Therefore, we propose that it is the phenomenon of **metonymy** that plays a crucial role in the formation of compounds. In order to provide evidence for this thesis we shall rely on the concept of the so called **Idealised Cognitive Model** (ICM) proposed by Lakoff (1987: 147). According to Lakoff (1987), conceptual parts of the complex ICM are motivated by language-independent factors, such as salience, economy and metonymy. On the basis of what has been said so far we may conclude that – according to the notion of the ecological niche – first there is an object that needs to be named. Secondly, as Lakoff (1987) maintains the object is associated with the complex ICM (source) which constitutes the basis for naming the thing (target). Taking the child language into account it means that when the child needs to name something, e.g. a bottle of tea meant for a small baby, he faces a wide variety of features of this object to choose from (such as its size, colour, taste, purpose, etc.), with the aim of coming up with its name. Thirdly, language independent factors – such as salience, economy and metonymy – lead to the selection of only certain components of the complex ICM to be transformed by the child into an innovative noun in accordance with the word-formation rules prevalent in a given language.[9] Consequently, the child comes up with a coinage *bobo-tea* which names only certain selected features of the object in question, and which – at the same time – is capable of evoking the whole ICM by means of a PART FOR WHOLE metonymy. Therefore, we have grounds to claim that metonymy is a primary motivational factor in the formation of compounds, as it is applied both for encoding and decoding concepts expressed by children.

Evidently, as shown by – among others – Dirven (1985) and Kleparski (1997, 2004) metonymy plays a crucial role in the development of lexicon not only in the language of children but also from a diachronic point of view. When, for example with some technological developments within a particular society a new 'thing' is introduced, the need arises to name it. As a result, it is very often the case that several names compete before one of them gains the upper hand over the others and before it becomes established as the conventional designation for this particular object. Thus, for instance, in the 19th century English there existed three metonymical competing names used in the sense 'screwdriver', that is *screwturner* (attested 1831 in the *OED*), *turn-screw* (attested 1801, 1837 and 1889) and, obviously, *screwdriver*. Notice that both *screwturner* and *turn-screw* may be said to select the same conceptual elements from the complex ICM, whereas *screwdriver* selects slightly different elements of the ICM by means of a PART FOR WHOLE metonymy. Eventually, according to Croft's (2000: 176), *first law of propagation* natural languages are characterised by the tendency to conventionalise one of the competing vocabulary items at the expense of the others. It seems that the resolution of this competition is largely a matter of arbitrariness.

4. On Polish Innovative Metonymical Nouns

Returning to the main subject of our considerations, let us now analyse the role of metonymy in the process of the innovative noun formation on the basis of our Polish data. In Polish, unlike in English, deverbal nominalisation seems to be the most productive process of innovative nouns formation (Chmura-Klekotowa, (1967)). And so, as far as our data is concerned, the vast majority of coinages (about 90 per cent) are deverbal nominalisations. They are formed to denote agents, instruments, objects and outcomes of activities. Let us now present a set of examples of innovative nouns from our language corpus:

(8)
a. agents:

metonymical nominalisation	**verbal base**	**symbolic adult term**
obcina-czka	*obcinać*, i.e. 'to cut'	'fryzjerka', i.e. 'hairdresser'
zapomi-nek	*zapominać*, i.e. 'to forget'	'ktoś kto zapomina', i.e. 'somebody who is forgetful'
aresztow-nik	*aresztować*, i.e. 'to arrest'	'aresztujący policjant', i.e. 'policeman who is arresting'
remontow-nik	*remontować*, i.e. 'to renovate'	'pracownik brygady remontowej', i.e. 'worker of renovation team'
równi-arz	*równać*, i.e. 'to level'	'robotnik równający drogę', i.e. 'worker levelling the road'
rozkaź-nik	*rozkazywać*, i.e. 'to order'	'majster', i.e. 'foreman'
wykluwa-czek	*wykluć się*, i.e. 'to hatch'	'pisklę wyklute z jajka', i.e. 'hatched chic'

b. instruments:

metonymical nominalisation	**verbal base**	**symbolic adult term**
miesza-czka	*mieszać*, i.e. 'to stir/to mix'	'łyżka', i.e. 'spoon'
wyciera-czka	*wycierać*, i.e. 'to dust'	'miotełka do wycierania kurzu' 'feather duster'
ściera-czek	*ścierać*, i.e. 'to wipe'	'mop', i.e. 'mop'
wyłącze-nie	*wyłączyć,* i.e. 'to turn off'	'wyłącznik', i.e. 'switch'
zasuwa-nka	*zasuwać*, i.e. 'to do up'	'zamek błyskawiczny', i.e. 'zip'
nawij-ka	*nawijać*, i.e. 'to roll up'	'korba przy studni', i.e. 'well crank'
klicz-ka	*klikać*, i.e. 'to click'	'myszka od komputera', i.e.
przekłuj-nik	*przekłuwać*, i.e. 'to prick'	'igła do przekłuwania uszu', i.e. 'needle for pricking ears'
naucz-nik	*nauczyć*, i.e. 'to teach'	'zestaw podręczników', i.e. 'a set of textbooks'
podgląda-czek	*podglądać*, i.e.'to peep'	'judasz', i.e. 'peephole' 'computer mouse'

c. objects:

metonymical nominalisation	**verbal base**	**symbolic adult term**
trzymanka	*trzymać*, i.e 'to hold'	'poręcz', i.e. 'hand-rail'
turla-czka	*turlać się*, i.e. 'to roll'	'(turlająca się) szpula', i.e. 'rolling reel'
wysuwa-nka	*wysuwać*, i.e. 'to pull out'	'wysuwana półka', i.e. 'pulled out shelf'
pie-czeń	*piec*, i.e. 'to burn'	'piekąca rana', i.e. 'burning wound'
złapa-nie	*złapać*, i.e. 'to get hold of'	'uchwyt meblowy', i.e. 'handle'
myślo-nka	*myśleć*, i.e. 'to think'	'mózg', i.e. 'brain'
stuka-cze	*stukać*, i.e. 'to clatter'	'buty na obcasach, które stukaja',i.e. 'high-heeled clattering shoes'
pokazu-nek	*pokazywać*, i.e. 'to show'	'rysunek', i.e. 'drawing'

d. outcomes of activities:

metonymical nominalisation	**verbal base**	**symbolic adult term**
zawiąza-nie	*zawiązać*, i.e. 'to tie'	'kokarda', i.e. 'bow'
pis-ki	*pisać*, i.e. 'to write'	'wydruk z komputera', i.e. 'computer printout'

According to Chmura-Klekotowa (1967), the source of these neologisms stems from the development of cause and effect thinking of children aged between two and three. This, in turn, entails children's interest in the etymology of newly acquired words. It can be observed on the basis of the above data that to children's knowledge every noun is not merely closely

related to designatum but it also must refer to one of the activities that these objects are somehow associated with. Hence, all the deverbal nominalisations from our corpus pertain to:

1. The activities that the agents (a) and instruments (b) engage in, e.g. *rozkaźnik* is somebody who gives orders and commands to people working at the building site (adult 'majster', i.e. 'foreman'), *miesza-czka* is a piece of cutlery used for stiring or mixing (adult 'łyżka', i.e. 'spoon'),
2. The activities that the objects (c) are meant for, e.g. *wysuwa-nka* is something that is meant for being pulled out (adult 'wysuwana półka', i.e. 'pulled out shelf'),
3. The outcomes of the activities (d) performed on objects, e.g. *zawiąza-nie* is something that has been tied (adult 'kokarda', i.e. 'bow').

Therefore, we are entitled to say that all the above coinages are iconic as they exhibit a close resemblance to the objects that they denote because they point directly to the functions that, in the children's opinion, are the most characteristic of them. Thus, *stukacze* are the shoes whose primary function is that of clattering (*stukać* 'clatter'), *pokazunek* is the drawing whose primary function is that of showing things (*pokazywać* 'show'), *wykluwaczek* is the chick whose primary function is to hatch (*wykluwać* 'hatch'), etc. In an attempt to shed some light on the cognitive strategies used by children in the process of innovative nouns formation we shall rely once again on the theory of apperception that has given rise to the notion of salience in modern linguistics.

As stated in the foregoing, according to Rozwadowski (1904), apperception consists in relating new facts to the facts that are already known from previous knowledge and experience. The nature of this process ensures that we are able to perceive distinctly only a limited number of elements out of their total amount lingering in the field of our perception. Because of this, the word becomes a reflection of merely one idea out of all the ideas that it represents. For Rozwadowski it is the dominant feature that becomes embodied in a particular word. As far as the very process of naming objects is concerned, Rozwadowski claims that it consists of highlighting a single feature out of many features that a given object is characterised by. In more recent terms, such metonymic coinages may be viewed as cases of "[...] perspectivisation, whereby some covertly or overtly present [...] value or values come(s) to the forefront, while other values are not only backgrounded but, in fact, may be suppressed completely" (Kleparski 1997: 242). It was already noticed by Rozwadowski (1903) that during the process of naming one element of the model is perceived as dominant, i.e. salient, while all the remaining elements are considered to be far less distinctive and hence dormant. Thus, the formation of innovative nouns consists in highlighting this function of the object or the person that children perceive as dominant in the process of naming, e.g.:

turla-czka, i.e. 'reel' -	the dominant feature of this object is that it is capable of rolling, not that it can, e.g. be spooled in thread,
obcina-czka, i.e. 'hairdresser' -	the dominant feature of this person is that she cuts people's hair, not, e.g. dyes it.
zasuwa-nka, i. e. 'zip' -	the dominant feature of this object is that it is used for doing up things, not that it is for example made of metal or plastic

In an attempt to account for this process within the framework of Lakoff's (1987) **Idealised Cognitive Model**, we might say that each coinage both stands for the whole

conceptual network associated with it, and evokes the whole conceptual network in spite of the fact that only some of its elements are expressed by a given innovative noun. Therefore, we feel justified in claiming that the nouns analysed in this paper may be labelled as **metonymical derivatives**. They are metonymical in a sense that the meaning they convey constitutes merely a part of the whole range of meanings that a particular noun conveys. Therefore, the nouns targeted here may be said to be motivated by a PART FOR WHOLE metonymy. For example, the noun *zawiązanie* 'bow' from the verb *wiązać*, i.e. 'tie' is metonymical in the sense that it expresses merely a fragment of the whole composite concept that the noun denotes. This coinage **foregrounds** merely one of the characteristic features that a bow may have, namely that it can be tied. However, the semantics of this noun also represents the composite concept by which we should understand its general characteristics, such as the material it is made of, its colour, its width, the purpose for which it is going to be used, the way it is to be fastened, etc., that is it evokes an **Idealised Cognitive Model** of a bow. Beyond doubt, many of the conceptual features of bow are backgrounded and not included the semantics of the coinage Thus, highlighting and **perspectivisation** of dominant functions/features/characteristics of a given object or a person simultaneously entails ignoring and **backgrounding** those functions and elements that are considered to be less distinctive by children. This leads to metonymically motivated phenomena in the process of word-formation. Despite the fact that metonymy is the main driving force in the compound formation, all innovative nouns from the Polish data are also:

1. Ecologically motivated: they fill empty slots in the children's lexicon;
2. Economically motivated: they encode the message at the lowest expense, e.g. the coinage *stukacze* from the verb *stukać*, i.e. 'to clatter' is much more economical than its adult highly descriptive counterpart 'high-heeled shoes making a clattering noise'.

5. Conclusion

To recapitulate, to a large extent the development of lexical resources is metonymically motivated both from a synchronic and diachronic perspective. Studying the process of the formation of innovative words one may differentiate several stages. First of all, there appears a 'thing' that needs to be named for which there is not an appropriate term in the language. Then, because the empty slot in the linguistic system needs to be filled, the 'thing' is set against and associated with the complex ICM (source), which constitutes the basis for naming the thing (target). Next, the process of naming is guided by language-independent factors, such as salience, economy and metonymy. As a result, by means of a PART FOR WHOLE metonymy only some components of the complex ICM are chosen and named by (a) particular language user(s) in the process of creating a new word. Moreover, a PART FOR WHOLE metonymy enables one to evoke the whole ICM of a given object as well. Therefore, it is considered to be a crucial motivational factor both in encoding and decoding meanings expressed by lexical innovations.

Notes

[1] See e.g. Hiraga (1997: 3), Haiman (1980,1985), Geeraets (2002), Lakoff (1987), and Beitel, Gibbs and Sanders (1997: 243).

[2] According to Radden and Panther (2004), there are four basic semiotic relations that may be exploited in motivation:

1. a content may motivate a form, as in iconicity,
2. a form may motivate a content, as in folk etymology,
3. a content may motivate another content, as in polysemy,
   a form may motivate another form, as in phonological change .

[3] Unless another source has been given, all the innovative nouns given in this article come from our own language corpus.

[4] In this article, our intention is to discuss only these types of motivation that are important for the scope of our considerations. For a full list of all the types of motivation that Radden and Panther mention see Radden and Panther (2004).

[5] Since viewing arrangement is not of primary importance for our discussion of children's neologisms, we are not going to elaborate on this issue here. Viewing arrangement has been extensively studied e.g. by Langacker (1987).

[6] In the process of grammatical development phonological salience also plays an extremely important role. On this issue see Slobin (1973).

[7] Some other examples of this kind followed by the relevant explanation are going to be presented in the following part of this article.

[8] This mechanism was first described by the Polish linguist Rozwadowski (1903), and we shall discuss it *in extenso* in the further section of this article.

[9] In English it is compounding, whereas in Polish deverbal nominalisation.

[10] On this issue see also Kleparski (1997).

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