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Rule or analogy?*

The case of English conversion

Abstract

A widespread assumption in works dealing with English word-formation is that conversion is by and large a productive process. A much less frequent alternative assumption is that conversion is an analogy-driven operation based on the re-application or imitation of certain salient patterns, like $N \rightarrow V$ or $V \rightarrow N$. Given these assumptions, neither of which has been properly examined, let alone justified so far, this paper first proposes an interpretation of conversion as a kind of semantic derivation. Then, it considers evidence for justifying that assumption according to which conversion is a productive, rule-governed word-building technique. In particular, it is demonstrated that, relying on the aforesaid interpretation of conversion, on the one hand, and on the criteria of qualitative approach to morphological productivity, on the other hand, it is possible to identify a set of conversion rules. It is also argued that an important corollary of treating conversion as semantic derivation is that the traditional, strictly categorial approach to polysemy needs to be reconsidered.

Keywords: analogy, encyclopaedic knowledge, metonymic mappings, polysemy, productivity, rules

1 Introduction

Despite its apparent simplicity as a word-formation process English conversion and its underlying mechanisms are still widely debated. Indeed, looking at the diversity of interpretations of this “ ’noiseless’ machinery” (Jespersen 1954: 85), one cannot but agree with Lieber’s opinion that conversion appears to be “a sort of battleground over which various theoretical camps have fought over the years” (2005: 418). The discussion of the different interpretations of conversion is not a primary issue for the present study; yet, by suggesting a specific interpretation and examining an important aspect of its operation, it hopes to be able to demonstrate that being “a sort of battleground” does not necessarily mean that conversion, available in English ever since the Old English period (Biese 1941: 18-30), is an elusive phenomenon that defies every effort to pin down its true nature.

Before presenting the main objectives of the paper, let us consider some examples given in (1) a. – f. below. Each of these examples, taken respectively from Jane Austen’s *Emma* ((1) a. – b.)), from a printed interview made with Clint Eastwood ((1) c.)), from two magazine articles featuring George W. Bush ((1) d. – e.)) and from a work by Aitchison (1998) ((1) f.)), contains a denominal converted verb printed here in italics. Cp.:

* I am grateful to the two anonymous reviewers for their invaluable comments on the draft version of this paper. Any errors and inconsistencies that have remained are solely my responsibility.

- (1) a. ‘Poor Jane Fairfax!’—thought Emma. ‘You have not deserved this. You may have gone wrong with regard to Mr Dixon, but this is a punishment beyond what you can have merited! —The kindness and protection of Mrs Elton! —’Jane Fairfax and Jane Fairfax!’ Heavens! let me not suppose that she dares go about, *Emma Woodhouse-ing* me! But upon my honour, there seems no limits to the licentiousness of that woman’s tongue!’ (Austen, J. (1994): *Emma*. Penguin Popular Classics, 214.)
- b. She was nobody when he married her, barely the daughter of a gentleman; but ever since her being turned into a Churchill, she has *out-Churchill’d* them all in high and mighty claims: but in herself, I assure you, she is an upstart. (Austen, J.: op. cit., 234)
- c. ‘Let’s start with ‘A Fistful of Dollars.’ How did that come about?’
 ‘Well, at that time I’d done ‘Rawhide’ for about five years. The agency called and asked if I was interested in doing a western in Italy and Spain. I said, “Not particularly.” I was pretty *westerned out* on the series.’ (Werner, J. S. (ed.) (2007): *Rolling Stone Interviews*, 324-325.
 [<http://bookos.org/s/?q=rolling+stone+interviews&t=0>])
- d. Bush jocularly told Woodward that Rice is “constantly *motherhenning* me”. (*Newsweek*, November 25, 2002; p. 41)
- e. ‘I’m going to get a shower. I’m just about *meeting’d out*.’ (*Newsweek*, July 31, 2006; p. 31)
- f. Henry *Moulinexed* the vegetables. / Mavis *jam-jarred* the wasp. (Aitchison, J. (1998): *Words in the Mind. An Introduction to the Mental Lexicon*. Oxford UK & Cambridge USA: Blackwell, 161)

The question this paper will address in the first place is whether conversion verbs in (1) a. – f., and by extension, converted words in general may be taken to (have) result(ed) from the operation of productive rules, or rather they are due to the working of analogy traceable in the re-application or imitation of certain salient patterns? As the following quotes reveal, there can be no easy answer to this question. For some linguists, including, among others, Quirk et al., Štekauer and Jovanović, the productivity of conversion seems to be unquestionable, though it may occasionally be exposed to certain constraints. Cp.:

[C]onversion is unusually prominent as a word-formation process, through both the variety of conversion rules and their productivity. (Quirk et al. 1985: 1558)

I have always been intrigued by the fascinating simplicity and enormous potential productivity of this word-formation process, which—as opposed to synthetic languages such as Slovak—establishes conditions for the multiplication of English vocabulary by, as it were, “switching over” to a different word-class. (Štekauer 1996: 11)

We have established that conversion is a very productive process. However, there are certain factors that hinder the productive capacity of this formation pattern. (Jovanović 2003: 433)

Bauer (1983) takes a more cautious stand, saying that until morphological restrictions on conversion are clearly specified, no productive conversion rules can reasonably be postulated:

This [i.e. the apparent lack of morphological restrictions on forms that can undergo conversion—SM] suggests that rather than English having specific rules of conversion (rules allowing conversion of common nouns into verbs or adjectives into nouns, for example) conversion is a totally free process and any lexeme can undergo conversion into any of the open form classes as the need arises. Certainly, if there are constraints on conversion they have yet to be demonstrated. (1983: 226)

Furthermore, Kiefer insists that certain noun verb conversions in English result from analogy and not from the operation of productive morphological rules. This is so because the formation of these conversion verbs does not seem to comply with the requirements of morphological productivity, for in morphosemantic terms the formation of these verbs is neither automatic nor transparent.

[...] the change of *napalm*_N to *napalm*_V [as in *They decided to napalm the village*—SM] does not seem to be automatic, although this is what one would expect from a productive morphological rule. (2005b: 189)

Productivity implies semantic transparency. It would thus seem that $N \rightarrow V$ is not a productive conversion rule in English but rather new verbs are created by analogy according to the existing pattern $N \rightarrow V$. (Kiefer 2005b: 191)

Finally, Kiefer explains the correlation between rule-governedness and productivity with respect to (Hungarian) conversion in the following way:

Conversion is rule-governed if the input and output conditions to conversion can be specified. Conversion may be rule-governed but unproductive, but productive conversion is always rule-governed. (2005a: 50)

Given the differences the above quoted opinions reflect, in the following discussion an attempt will be made to demonstrate that the process of conversion in present-day English is an independent and at the same time a largely productive word-formation technique, being on a par with derivation (affixation) and compounding. To this end, first, in section 2, current interpretations of conversion will be briefly surveyed and, based on the tenets of cognitive semanticists, arguments will be provided in favour of an interpretation treating conversion as semantic derivation motivated by a series of conceptual mappings. As will be pointed out in section 3, a corollary of this interpretation is that the semantic link between conversion pairs is explicable in terms of a non-standard type of polysemy. Section 4 deals with the issue of morphological productivity and some other notions related to it. Finally, in section 5, relying on the qualitative approach to morphological productivity, a list of English conversion rules will be proposed. Along with the criteria of qualitative productivity morphological constraints imposed on the productivity of individual types of conversion will also be brought under scrutiny. Unless indicated otherwise, examples will be taken from the *British National Corpus* (SARA, version 0.98; 2000) and a number of dictionaries, including the second edition of the *Oxford English Dictionary on Compact Disc* (2009).

2 Interpretations of conversion

2.1 Previous interpretations

For most linguists conversion is a kind of derivation, whether morphological (whereby a zero suffix is attached to the converting base; cf. Marchand 1969, Kastovsky 2005, Kiparsky 1982, Lipka 1990) or syntactic (whereby inflectional suffixes are attributed derivational functions;

cf. Myers 1984, Szymanek 1989) or semantic (whereby conversion is treated as semantic extension or conceptual mapping; cf. Kövecses & Radden 1998, Radden & Kövecses 1999, Twardzisz 1997, Schöneveld 2005, Martsa 2013; see section 2.2) or the combination of these (as in Crocco-Gáleas (1990), whereby conversion is conceived of as morphological metaphor, a phenomenon determined by the interplay of semantic, morphological and syntactic factors). Others deny this, claiming that what takes place during conversion is not word-formation, but the usage-based reduplication or relisting of certain words belonging to a word class as words belonging to another word class (Clark & Clark 1979, Lieber 2004), or, alternatively, the manifestation of the inherent in- or underdeterminacy of word categories (Farrell 2001).

Furthermore, conversion is treated by some linguists as a type of word-formation, but not as derivation (affixation). In Leech's (1981) opinion, conversion is a lexical rule operating in the mental lexicon along with two other rules, derivation and semantic transfer. Štekauer (1996), proposing an onomasiological framework for the study of conversion, also argues for a non-derivational interpretation, suggesting that conversion is the result of the intellectual reanalysis of extralinguistic objects or entities to be named and the subsequent reanalysis or recategorization of the conceptual categories underlying them. The conceptual categories in question are substance, action (with subcategories of action proper, process, state), quality and concomitant circumstance. For instance, a substance can be recategorized as action (e.g. *water*_{N>V}) or a process as action (e.g. *experiment*_{N>V}). Finally, natural morphologists (cf. Dressler 2000, Manova & Dressler 2005, Manova 2011) also treat conversion as a word-formation process different from derivation (affixation). They recognize five universal morphological techniques: addition or affixation (e.g. *lion* → *lion-ess*), substitution (e.g. *nomin-ate* → *nomin-ee*), modification (e.g. *to increase* → (*an*) *increase*), conversion (e.g. *dry* → *to dry*) and subtraction (e.g. *lazy* → *to laze*) (Manova & Dressler 2005: 68). These techniques represent prototypical morphological rules which are also ordered on a scale according to their naturalness and productivity from affixation being the most natural and productive (i.e. iconic plus cognitively simple) to subtraction being the least natural and productive (i.e. anti-iconic, since the addition of meaning is paired with the deletion of form). The other techniques between these two display decreasing naturalness and productivity, with conversion being non-iconic in the sense that the addition of semantic content is not accompanied by the addition of some form, or more technically, a change in the morphosemantic head is not accompanied by a change in the morphotactic head. Because of this, so the argument goes, conversion displays a low degree of productivity.

2.2 Conversion viewed as semantic derivation underlain by metonymic mappings

In cognitive semantic studies conceptual mapping is understood as “the projection of one set of conceptual entities onto another set of conceptual entities” (Radden & Dirven 2007: 12) across or within what Lakoff (1987: 68-76) calls idealized cognitive models (ICMs, for short). These models, in turn, are the mental representations of the world embodied in human experience. They guide human categorization in which category membership is based not on necessary and sufficient conditions, but on similarity to the most salient, prototypical representative of the category. ICMs also guide reasoning and apart from the relevant knowledge of a particular domain they include the cultural models that speakers live by (Radden & Kövecses 1999: 20). An important attribute of ICMs is that they are restricted neither to reality, nor to conceptualizations and the world of language, but cut across these

ontological realms, thereby inducing sets of rich associations realized by two types of conceptual mappings, metonymic and metaphoric (Kövecses & Radden 1999: 20). These mappings subsequently lead to the emergence of metonymic and metaphoric senses of words and, as we will see presently, they play an important role in the genesis of conversion. It is also important to mention that the above description of conceptual mapping is consonant with the view advocated by cognitive grammarians that linguistic meaning is a matter of conceptualization and as such it must be viewed as being “consequently encyclopaedic” and exempt from “largely artifactual” and “false dichotomies” such as semantics vs. pragmatics and linguistic knowledge vs. extralinguistic knowledge (Langacker 1987: 154).

According to Kövecses and Radden (1998), Radden and Kövecses (1999), Schöneveld (2005) and Martsa (2013), different types of conversion result from a set of underlying metonymic mappings operating mostly within the conceptual construct of the Action ICM. This ICM is made up of the action proper, expressed by the predicate, and other related constituents, such as the agent, instrument and so on.¹ Metonymic mappings in the Action ICM are partially reversible, that is, they may work in two directions: from the agent or the instrument or the location/destination of the action onto the action itself and vice versa, from the action onto its participants. As is illustrated in Figure 1 below, a major consequence of the partial reversibility of metonymic mappings is that the Action ICM accommodates two types of conversion, the conversion of verbs from nouns (and adjectives) and the conversion of nouns from verbs. The reversibility of metonymic mappings is indicated by double-headed arrows in Figure 1:

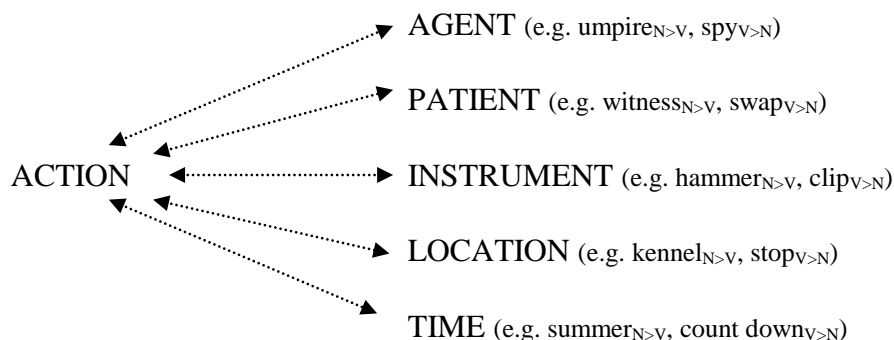


Figure 1: The Action ICM

Metonymic mappings can be made explicit by conceptual metonymies of the form ‘X for Y’. Examples below, illustrating the uses of denominal conversion verbs (2) a. and deverbal conversion nouns (2) b., are adopted from Kövecses and Radden (1998: 60-61), Schöneveld (2005: 158-159) and Martsa (2013: 183-184):

- (2) a. INSTRUMENT FOR ACTION: *ski*, *shampoo* (one’s hair)
 AGENT FOR ACTION: *butcher*, *author* (a book)

¹ In this respect Dirven (1999: 277-279) notes that noun-to-verb conversion is not a process that takes place merely on the word level, but it must be located on the predicate-argument or nucleus level, marking the syntactic frame of what he calls event schemata (roughly corresponding to Action ICMs) in which any participant can be the carrier of the saliency feature for the whole schema.

DESTINATION FOR MOTION: *porch* the newspaper

TIME FOR ACTION: *summer* in Paris

- b. ACTION FOR THE PATIENT INVOLVED IN THE ACTION: *bore, buy, dropout, read, swap*
 ACTION FOR THE INSTRUMENT INVOLVED IN THE ACTION: *clip, lock, pull, rattle, whistle*
 ACTION FOR AN INSTANCE OF THE ACTION: *flick, kick, punch, repeat, save, spin*
 ACTION FOR THE LOCATION OF THE ACTION: *flyover, hideout, sink, stand, stop, turn*

In a specific group of verbs, called here animal verbs, converted from nouns designating animals metonymic mappings are conditioned by (preliminary) metaphoric mappings which are responsible for allocating metaphoric senses to the corresponding input noun bases (cp. *fox*_{N1} ‘an animal similar to a dog with reddish-brown fur, with a pointed face, and a bushy tail (LDOCE)’ → *fox*_{N2} ‘a cunning person; a trickster’; *chicken*_{N1} ‘a large bird that is often kept for its meat and eggs (OALD8)’ → *chicken*_{N2} ‘a cowardly person’), and from which verbs are converted (cp. *fox*_{N2} ‘a cunning person; a trickster’ > *fox*_V ‘trick, confuse’; *chicken*_{N2} ‘a cowardly person’ > *chicken*_V out ‘to decide not to do something because you are afraid (OALD8)’). Unlike metonymic mappings, metaphoric mappings link two ICMs, encompassing in this case animals and human beings respectively and they, as a rule, call to mind salient activities or behaviour of animals as perceived by people. As is shown in (3), metaphoric mappings evoked by animal verbs can be made explicit by conceptual metaphors of the form ‘X is Y’.

- (3) A PERSON DECEIVING OTHER PERSONS IS A FOX
 She *foxed* him *into* giving her all his money. (CIDE)

A PERSON WHO DECIDES AT THE LAST MOMENT NOT TO DO SOMETHING HE SAID HE WOULD DO BECAUSE HE IS SCARED IS A CHICKEN

A group of people went hang-gliding, but a couple of people *chickened* out of (doing) it at the last moment. (CIDE)

These metaphors may be seen as derivations from the generic metaphor HUMANS ARE ANIMALS lying at the heart of all metaphoric expressions relating to the human-animal relationship (cf. *chicken-hearted, chicken feed, play chicken*).

It was pointed out in Martsa (2013: 157) that the generic conceptual metonymy evoked by animal verbs, such as *fox*_V and *chicken*_V mentioned above, is ¹ANIMAL FOR THE ACTIVITY / BEHAVIOUR (PERCEIVED AS) TYPICAL OF ²ANIMAL, where ¹ANIMAL metaphorically designates a person with an attribute or attributes of ²ANIMAL (=real-world animal) metonymically projected onto them. It is important to note that there are animal verbs which, just like most other conversion verbs, result only from metonymic mappings. They usually designate the actions of bringing young animals forth, hunting for animals or using animals for hunting for other animals and catching or exterminating animals. In (4) first the relevant conceptual metonymies are mentioned.

- (4) YOUNG ANIMAL FOR BRINGING THAT ANIMAL FORTH
 She’s due to *lamb* in two weeks’ time. (OALD8)

ANIMAL FOR CATCHING / EXTERMINATING THAT / ANOTHER ANIMAL

The sea here has been *fished* intensely over the last ten years. (CIDE)

The dogs went *ratting*. (LDELC)

Conversion verbs in (4) belong to the class of goal verbs (see section 5) and the specific conceptual metonymies motivating them are considered derivations from the generic metonymy RESULT FOR THE ACTION THAT BRINGS ABOUT THAT RESULT underlying the whole class.

Certain types of conversion arise from other ICMs, such as the Category-and-Property ICM, from which nouns converted from adjectives emerge and where properties are mapped onto categories, or, to be more precise, a property is metonymically mapped onto, and thus comes to stand for, its carrier.² The generic conceptual metonymy this ICM and the nouns emerging from it evoke is DEFINING PROPERTY FOR CATEGORY (Radden & Kövecses 1999: 35) and, as is shown in (5), different specific metonymies can be derived from it (Martsa 2013: 188).

(5) INTELLECTUAL/MENTAL PROPERTY FOR (THE GROUP OF) PEOPLE SHARING THAT PROPERTY (e.g. *the clever, the stupid, the insane*)

COLOUR OF SKIN FOR PEOPLE HAVING THAT COLOUR OF SKIN (e.g. *the blacks, the yellows, the whites*)

Before turning to an important corollary of considering conversion semantic derivation underlain by metonymic and metaphoric mappings, a classification of conversion is given in Table 1. Since the publication of Sweet's *A New English Grammar* in 1891, containing the first scholarly discussion of conversion, several classifications of this process have been put forward; the one presented in Table 1 includes types generally acknowledged by morphologists dealing with conversion (Martsa 2013: 102).

Full conversions	N > V	<i>referee_N > referee_V</i>
	A > V	<i>calm_A > calm_V</i>
	CLOSED CLASS > V	<i>down_{PREP/ADV} > down_V</i>
	V > N	<i>catch_V > catch_N</i>
	PHRASE > N	<i>shut down_V > (a) shutdown_N</i>
	PHRASE > A	<i>up in the air > up-in-the-air_A</i>
Partial conversions	A > N	<i>lucky_A > (the) lucky_N</i>
	CLOSED CLASS > N	<i>must_{AUX} > must_N</i>
	ADV > N	<i>up_{ADV} down_{ADV} > (the) ups and downs_N</i>

Table 1: Types of conversion

A common feature shared by both types of conversion is that the output must always be an open class word in each of them; the difference between them is that whereas in full conversions the output items adopt all the inflectional properties of their new classes, in the case of partial conversions this is not so.

² See Kövecses & Radden (1998) and Radden & Kövecses (1999) for a survey of ICMs and their role in triggering metonymic mappings.

3 Homonymy or polysemy?

Conversion is a morphologically unmarked process whose input and output, with some notable exceptions (e.g. *calf_N* > *calve_V*, *house_N* > *house_V*), are morphophonologically identical. This may be the reason why, despite the obvious semantic link between conversion pairs, this process is usually qualified as a kind of (grammatical) homonymy (cf. Jespersen 1954: 84, Lipka 1990: 140). Due to constraints on space, here we cannot deal with the correlation between homonymy and polysemy in general; neither can we entertain the difficulties of telling these two semasiological phenomena apart.³ Suffice it to mention that the traditional (lexicological) view is that homonyms or homonymous words (whether they are homophones or homographs) are not related semantically, whereas polysemy is observable among the different related senses of the same word. Traditional wisdom also has it that polysemy is directional, that is, one sense of a polysemous word is systematically derivable from another, more basic sense by means of semantic transfer of some kind. Although the overall significance of this latter view has been challenged, among others, by cognitive semanticists,⁴ it is still considered a main feature of polysemy. In all probability this is so because directionality is believed to guarantee another important feature of polysemy, semantic predictability.

The semantic relationship between the input and the output of conversion is such that the meaning of the latter is generally predictable from the meaning of the former. A possible consequence of this is that conversion pairs cannot be relegated to homonymy, where no semantic link is detectable between the morphophonologically identical items. What we can really see is that during conversion a semantic link reminiscent of polysemy is established between the input and the output.⁵ Another reason why conversion pairs cannot be the instantiations of homonymy is that homonymy is not a processual phenomenon with clearly identifiable input and output words. However, the claim that conversion exemplifies polysemy rather than homonymy seems to be at variance with the standard view that polysemy is a categorial phenomenon characterizing the related senses of the same word and not the related senses of categorially different homographic words. With a view to doing away with this anomaly, authors like Lehrer (1990), Zawada (2006) and Martsa (2002, 2013) suggest that the standard, categorial approach to polysemy should be reconsidered, and they argue for the extension of the scope of polysemy to make it suitable to include what can be called non-standard (Lehrer 1990) or intercategoryal (Zawada 2006) polysemy represented by conversion with its categorially different homographic input and output.

If conversion is taken to realize polysemy, it is only logical, as was already noted above, that the meaning of its output item is predictable from the meaning of its input item. One can hardly deny for example that the meanings of *jail_V* ‘to put in jail’ as in *They ought to jail her*

³ For a detailed discussion of these problems, see Martsa (2013: 198-230).

⁴ See for examples the interpretations of polysemy as a meaning chain based on family resemblance, or as a radial network of senses motivated by different conceptual mechanisms (cf. Taylor 1995, Dirven & Verspoor 1998, Evans & Green 2006).

⁵ Note, however, that what seems to be a clear case of polysemy on the synchronic plane may turn out to have originated from homonymy on the diachronic plane. *Ear* ‘the organ of hearing’ and *ear* ‘the top part of a plant such as wheat that produces grain (LDOCE)’ are cases in point, since they derive from formally and semantically distinct Old English words, but in present-day English they are thought to be related through polysemy (Lyons 1977: 551). By way of contrast, despite the etymological link between the word pairs *port* ‘harbour’ and *port* ‘strong sweet Portuguese wine’ or *pupil* ‘learner’ and *pupil* ‘the small black round area in the middle of the eye’, synchronically they are taken to be homonyms by most speakers (*ibid.*).

killer for life. (LDOCE), or *thin*_V ‘to make/become thin’ as in *The clouds thinned and the moon shone through*. (OALD8), or *buy*_N ‘a thing bought’ as in *Are you going for a buy then?* (BNC), or (the) *unbelievable*_N ‘sth that cannot be believed’ as in *The next day the unbelievable happened, and you entered the Spanish class for foreigners*. (BNC) are respectively derived from the meanings of *jail*_N, *thin*_A, *buy*_V, and *unbelievable*_A. However, a word of caution is in order. Unlike derivation (affixation) and compounding, in which semantic predictability is supported by morphological transparency (cp. [[*read*]-er], [[*steam*]-boat]), in conversion this is inconceivable due to the lack of morphological compositionality. Martsa (2013: 211) makes the claim that in conversion the role of morphosemantic transparency, as it were, is taken over by the encyclopaedic knowledge incorporated in the lexical meaning of input items. It seems reasonable to assume that encyclopaedic knowledge, taken to be the manifestation of the encyclopaedic nature of linguistic meaning suggested by Langacker (see above), encapsulates any kind of cultural knowledge, including what is conventionally called background or world or extralinguistic knowledge. During conversion this knowledge is metonymically mapped onto the meaning of the output word, or in other words, the meaning of the output word results from the metonymic mapping of this knowledge.

The role of encyclopaedic knowledge in accessing the derived senses of converted words is detectable even in such cases of conversion where no serious processing effort is required. Thus the meanings of *shell*_V ‘to remove shell from nuts, etc. (OALD8)’ and *pit*_V ‘to remove the stone from the inside of a fruit (OALD8)’ are derivable from the knowledge respectively incorporated in the meanings of *shell*_N and *pit*_N, namely that shell covers, among others, peanuts and eggs and it must be removed before eating them; and, likewise, cherries contain pits or stones which must be removed while eating them. Or, the meaning of *fork*_V is easily derivable from the trivial knowledge that a fork is used for picking up and eating food. The role of encyclopaedic knowledge, however trivial it may prove to be, is traceable in conversion nouns as well. The conceptualization of the action of kicking denoted by *kick*_V, for example, normally involves an instance of kicking, the person who does the kicking and the object being kicked, out of which the first is denoted (and lexicalized) by the noun *kick*_N through the metonymic mapping of the action onto it; in other words, an instance of (the act of) kicking comes to stand for the whole action of kicking, implicitly alluding to the agent (i.e. the person who does the kicking) and the patient (i.e. the object being kicked).

The role of encyclopaedic knowledge is of utmost importance if the semantic link between the meanings of the input and the output words is not as obvious as in the previous cases. The meaning of *ape*_V ‘to imitate, mimic’, for instance, does not seem to be directly related to the metaphoric meaning⁶ of the input noun *ape*_N ‘an ugly, clumsy, stupid person’. We can reasonably assume that the meaning of *ape*_V can only be inferred from speakers’ conventional knowledge or experience that apes, especially in captivity, often imitate or mimic human gestures or behaviour. This knowledge is incorporated in the lexical meaning of *ape*_N without being lexicalized as a distinct sense. The meaning of *fox*_V ‘to confuse, trick’, on the other hand, is derived from the metaphoric sense of *fox*_N designating a cunning person or a trickster, which in turn is related to the knowledge generations of speakers have acquired about real-world foxes. This knowledge, including the familiarity with legends and fables about foxes, is lexicalized as a distinct sense within the lexical meaning of *fox*_N. Finally, sometimes reliance on a particular facet of encyclopaedic knowledge is called for. *Door*_V is a case in point, for its

⁶ The role of metaphoric mappings in conversion was discussed in section 2.2.

meaning ‘to be hit by opening the door of a car’ in *I nearly got doored as I went past the flats in Camden Street* (LDOCE) is not related to any known sense of *door*_N. The said instrumental meaning of *door*_V is only inferable if we rely on the particular knowledge that a cyclist or a passer-by can accidentally be hit or injured by the careless opening of the door of a parking car. This particular piece of knowledge may be incorporated in the meaning of *door*_N, but its lexicalization as a distinct sense is highly unlikely.⁷

Finally, mention must be made of cases of conversion in which the meaning of the output word is (synchronically) not derivable from the meaning of the input word. Consider the following three examples of noun verb conversion (the glosses are based on LDOCE): *badger*_N ‘an animal which has black and white fur, lives in holes in the ground, and is active at night’ > *badger*_V ‘to try to persuade someone by asking them something several times’, *doctor*_N ‘someone who is trained to treat people who are ill’ > *doctor*_V ‘to dishonestly change something in order to gain an advantage’. As the underlying rules, more precisely the conceptual mappings underlying these conversions and the pieces of encyclopaedic knowledge related to them are no longer accessible, conversions of this type fall beyond the scope of this paper.⁸

To sum up, the conclusion can be made that in spite of the fact that conversion in present-day English involves morphophonologically identical input and output words, in lexical semantic terms it is more prudent to consider it the coming into existence of polysemy and not homonymy. The input and the output of conversion are not only related semantically, but the meaning of the latter can be derived from the meaning of the former in a systematic way. This state of affairs is by no means unexpected in the light of the cognitive semantic interpretation of conversion outlined in section 2.2, and its importance will be further emphasized in the discussion of productivity in the next section.

4 Productivity

We have seen in the *Introduction* that the issue of productivity of conversion is surrounded by a certain degree of controversy in morphological studies. One thing nevertheless seems certain: the productivity of this process has never been studied seriously. It is owing to this fact that the remainder of this paper aims to consider evidence in favour of rule-governed productivity of conversion. Concretely, it will examine whether instances of conversion, including those mentioned in (1) a. – f. in the *Introduction*—cp. *Emma Woodhouse*_V ‘roughly: to annoy/irritate E. W. by continually addressing her, or referring to her as ‘Emma Woodhouse, Emma Woodhouse’; *out-Churchill*_V ‘roughly: to strive to behave very much like the other Churchills’; *western*_V (out) ‘to have enough of shooting western movies’; *motherhen*_V ‘to behave like a mother hen, i.e. like a woman who likes to care for and protect people and who worries about them a lot (OALD8)’; *meeting*_V (out) ‘to have enough of (participating in a series of) meetings’; *Moulinex*_V ‘to use a food processor of Moulinex

⁷ For a more detailed discussion of the role of encyclopaedic knowledge in establishing intercategoryal polysemy, see Martsa (2013: 224-230).

⁸ Presumably these noun verb conversions exemplify what is called by Bauer (1983: 55-59) semantic lexicalization which is due to the loss or addition of semantic content and which results in semantic drift or in the loss of semantic link between the base word and the word derived from it.

product'; *jam-jar_v* 'to put something in a jam jar'—arise from the operation of certain underlying rules, or from the analogous application of some patterns.

In works dealing with morphological productivity a difference is often made between qualitative (competence-based) and quantitative (performance-based) approaches to productivity. Although the validity of this distinction, first proposed by Kastovsky (1986), can hardly be questioned in general, in what follows the former will be given preference. While productivity taken in the quantitative sense stems from the need to provide quantitative means to measure the type- and/or token-frequency of affixes in different corpora containing naturally occurring words (cf. Baayen 1992, Baayen & Lieber 1991, Plag 2003), productivity taken in the qualitative sense (cf. Dressler 1999, Kiefer & Ladányi 2000, Kiefer 2002, Ladányi 2007) focuses on the formation of potential words (e.g. *turncoatism*, *Obamaness*, *Seedlings*⁹) and the rules that help to form these words. Furthermore, Kiefer (2002) and Ladányi (2007) assert that qualitative morphological productivity based on the formation of potential words (that are typically not listed in the lexicon) as well as on the morphosemantic transparency and the unintentional, automatic formation of words is competence-based and as such it constitutes part of the grammatical competence of language users. This appears to be in line with Lyon's definition of productivity in general:

By productivity [...] is meant that property of the language system which enables native speakers to construct and understand an indefinitely large number of utterances, including utterances that they have never previously encountered. (1977: 76)¹⁰

Returning to conversion verbs mentioned in the *Introduction* and repeated at the beginning of this section, first the question should be addressed whether they comply with the above criteria of qualitative productivity. Concretely, can we state that the verbs *Emma Woodhouse_v*, *out-Churchill_v*, *western_v* (out), *motherhen_v*, *meeting_v* (out), *Moulinex_v* and *jam-jar_v* are potential words? Can we also state that they are morphosemantically transparent? And, finally, can they be seen as words formed unintentionally or automatically? The answers to the first and third questions are definitely positive, for, on the one hand, these verbs are not likely to become established words and make it into dictionaries even in the long run, and, on the other hand, the uses of these verbs seem to be unintentional or automatic in the sense that in the given contexts the production and the comprehension of these verbs appear to be unconscious and effortless.

The second criterion, morphosemantic transparency, is somewhat problematic, for, as was argued in the previous section, its function is to warrant semantic predictability in the case of complex words, like derivatives and compounds. But, as was also argued in the previous section, in the case of conversion it is reasonable to assume that the encyclopaedic knowledge speakers possess about people, animals, things, activities, etc. denoted by the converting input items makes up for missing morphosemantic transparency. Relying on this knowledge, reflecting the encyclopaedic nature of linguistic meaning (see previous section), one can easily infer from the circumstances or settings described, for instance, in Jane Austen's novel what

⁹ The proper noun *Seedlings* (*Newsweek* April 22, 2002; p. 28), obviously meant to be a pun (cf. *seedling* 'young plant newly grown from a seed'), was coined to denote high-ranking British politicians who had been converted to the Catholic faith by Michael Seed, a charismatic Franciscan monk (Martsa 2007: 144).

¹⁰ This view of productivity is similar to the generative grammarians' view of creativity, which, as is also observed by Ladányi (2007: 52), demonstrates that in generative grammar no real distinction is made between creativity and productivity. The correspondence between productivity and creativity in word-formation is discussed in Martsa (2013: 244-250).

the verbs *Emma Woodhouse_V* and *out-Churchill_V* happen to mean. Similarly, knowing what the kitchen products of Moulinex or a jam jar are used for, the comprehension of *Moulinex_V* and *jam-jar_V* is effortless and automatic.

We have seen in the *Introduction* that semantic transparency and automatism, including the automatic change of word class as well, are questioned by Kiefer (2005b: 191) so far as established English conversions such as *bottle_{N>V}*, *commission_{N>V}*, *mail_{N>V}*, *mushroom_{N>V}*, *skin_{N>V}*, *vacation_{N>V}* and *napalm_{N>V}* (as in *They decided to napalm the village.*) are concerned. He says that because of the lack of semantic transparency represented by the aforesaid verbs $N \rightarrow V$ is not a productive conversion rule, but just a pattern that serves as a basis for analogous formations of conversion verbs (*ibid.*). There can be two objections to this claim, however. One is that whereas morphotactic transparency is really absent from conversion, morphosemantic transparency, as was repeatedly argued in the previous discussion, is provided by encyclopaedic knowledge. The verb *napalm_V* is an apt illustration of this point. It can be reasonably assumed that its meaning ‘to drop (a) napalm bomb/s’ in *They decided to napalm the village* is directly predictable from the knowledge incorporated in the meaning of *napalm_N*, namely that such bombs were widely used by US forces to burn the jungle and villages in the Vietnam war (LDOCE). Put differently, the meaning of the verb *napalm_V* is regular¹¹ since it can be predicted from the meaning of the input noun *napalm_N*. Analogously, the same seems to refer to the conversions *bottle_{N>V}*, *commission_{N>V}*, *mail_{N>V}*, *mushroom_{N>V}*, *skin_{N>V}* and *vacation_{N>V}* in which the meanings of verbs are also predictable from the encyclopaedic knowledge incorporated in the respective input nouns’ lexical meanings. As regards the other objection, Saussure (1959: 221-230) maintains that analogy presupposes the regular imitation of a model or pattern which must be based on a complex, analyzable word. An unanalyzable simplex word does not have a structural pattern that can be imitated and therefore cannot serve as a model for analogical formations. As in this paper conversion is interpreted as semantic derivation and not as a kind of morphological derivation (affixation), instances of conversion cannot be viewed as complex items or syntagmas (i.e. base + \emptyset suffix), as is suggested, among others, by Marchand (1969), and they cannot serve as models or patterns for analogy-driven word-formation (though see below).¹²

While to account for the formation of potential words is a distinctive feature of productive morphological rules, an important function of all morphological rules, including productive (such as suffixations by *-er* and *-ness*, e.g. *singer*, *calmness*) as well as unproductive (such as suffixations by *-ant* and *-ity*, e.g. *applicant*, *vanity*) or synchronically no longer active rules (such as suffixations by *-ment* and *-th*, e.g. *government*, *health*) is that they also help analyze and/or process established words. As expected, productive conversion rules presented in the next section behave in the same way; with the exception of cases of lexicalization (see footnote 9), they account not only for the formation of potential words (cf. *Emma Woodhouse_V*, *out-Churchill_V*), but also for the comprehension of established words (cf. *napalm_V*, *mushroom_V*).

Finally, as regards the issue of productivity vs. analogy, it needs to be noted that three types of conversion, CLOSED CLASS>N (e.g. *must_N*, *ifs_N*), ADV>N (e.g. *hereafter_N*, *ups and*

¹¹ The correlation between regular and irregular polysemy is discussed in Pethő (2007).

¹² See Bauer (2001: 75-97) for a comprehensive survey of the correspondence between analogy and productivity, more precisely, between analogy and word-formation rules. Dealing with neologisms such as *chocoholic* or *meatitarian*, Lehrer assumes that in word-formation instances of analogy may subsequently develop into rules (1996: 67).

*down*_{SN}) and PHRASE>A (e.g. *up-in-the-air*_A, *before-tax*_A), in all probability are motivated not by rule-governed productivity, but by some kind of analogy. In the case of nouns converted from closed class items and adverbs, the analogy may be based not only on the apparent analyzability of the corresponding input bases (which, as we have seen above, is inconceivable in other conversion processes), but also on the general tendency permitting the metalinguistic use of any word and, as a matter of fact, any grapheme and phrase as a noun (Stein 1976: 229). It seems only logical to assume that words or phrases that are frequently used as nouns after some time may undergo unmarked category shift and eventually become institutionalized as nouns which remain semantically related to the corresponding closed class words and phrases. It is exactly because of this link that these category shifts must also be regarded as instantiations of conversion.

5 Conversion rules

5.1 Preliminary notes

As we have seen, Kiefer (2005b: 191) questions the existence of English conversion rules such as $N \rightarrow V$, claiming that new verbs are created not by productive rules but by analogy. At the same time, however, he also claims that types of Hungarian conversion are rule-governed and proposes several conversion rules (or principles) that specify the morphosemantic and morphosyntactic input and output conditions or constraints for the operation of these rules. In the formulation of each rule the syntactic pattern ‘*If ... then...*’ (2005a) is employed. For example, the rule underlying one subtype of Hungarian $A > N$ conversion is formulated in the following way (2005a: 56):

If P is a salient property of entity E then ADJ expressing P can be used to denote E. (e.g.: *bölcs*_A ‘wise’ > *bölcsök*_{N,PL} ‘the wise’, *gazdag*_A ‘rich’ > *gazdagok*_{N,PL} ‘the rich’)

It will be demonstrated below that rules of the same kind can be formulated with respect to the classes of English conversion as well. In the formulation of each of these rules the *if*-clause specifies the input conditions and the *then*-clause the output conditions of their application. As it will transpire, the input and output conditions or constraints are mostly of semantic nature, which is fully in accordance with the interpretation of conversion proposed in this paper. Apart from semantic constraints, there are also morphological constraints characterizing the input bases of whole classes of conversion, especially subclasses of noun-to-verb conversion. They will be perused in section 5.7. Drawing on Martsa (2013: 263-272), the presentation of each conversion rule is arranged in the following way: after a brief description of each class or subclass of conversion, the corresponding metonymic mapping is given in the form of a conceptual metonymy or conceptual metonymies taken from Kövecses and Radden (1998) and Martsa (2013); this will be followed by the formulation of the respective rule or rules.

5.2 $N > V$ conversions

Since $N > V$ conversions represent by far the largest class of conversions in present-day English, it should come as no surprise that the number of conversion rules that can be postulated for this class is relatively high. This class of conversion verbs includes the subclasses of locatum verbs (e.g. *blanket*_{N>V}, *tunnel*_{N>V}), location and duration verbs (e.g.

*kennel*_{N>V}, *summer*_{N>V}), agent and experiencer verbs (e.g. *boycott*_{N>V}, *witness*_{N>V}), goal and source verbs (e.g. *orphan*_{N>V}, *letter*_{N>V}), instrument verbs (e.g. *nail*_{N>V}, *towel*_{N>V}) and animal verbs (e.g. *fox*_{N>V}, *dog*_{N>V}). With the exception of animal verbs these subclasses are adopted from a well-known classification proposed by Clark & Clark (1979: 769-781) and most examples are also taken from them.

5.2.1 *Locatum verbs*

Verbs in this subclass evoke the conceptual metonymy OBJECT OF MOTION FOR THE MOTION. Each locatum verb pertains to one of the following three semantic patterns: ‘put N on x’ (e.g. *carpet*_V, *varnish*_V), ‘put N in x’ (e.g. *pepper*_V, *cream-and-sugar*_V) and ‘remove N from the surface/inside of x’ (e.g. *pit*_V, *stone*_V). For the generation of verbs belonging to this subclass three conversion rules can be postulated. Cf.:

- 1a: If *N* denotes an entity *E* which is put on entity *F*, then *V* converted from *N* can be used to mean putting *E* on *F* or covering *F* with *E*. (e.g. *blanket* the bed, *forest* the land, *cold-cream* one’s face, *muzzle* the dog, *licence-plate* the car)
- 1b: If *N* denotes an entity *E* which is put in entity *F*, then *V* converted from *N* can be used to mean putting *E* in *F*. (e.g. *spice* the food, *cream* the coffee, *ice* the drinks, *buttonhole* the shirt, *ladder* the nylons)
- 1c: If *N* denotes an entity *E* which is an organic part of *F* or which is functionally related to *F*, then *V* converted from *N* can be used to mean removing *E* from (the surface or the inside of) *F*. (e.g. *skin* the rabbit, *shell* the peanuts, *husk* the corn, *pit* the cherries, *pip* the grapes, *bone* the fish)

5.2.2 *Location and duration verbs*¹³

The conceptual metonymies evoked by this subclass of verbs are DESTINATION OF THE MOTION FOR THE MOTION and TIME PERIOD FOR A CHARACTERISTIC ACTIVITY IN THAT TIME PERIOD. Location and duration verbs also pertain to three semantic patterns, viz. ‘put x on/in N’ (e.g. *ground*_V, *house*_V), ‘remove x from N’ (e.g. *quarry*_V, *shell*_V) and ‘spend N in x’ (e.g. *wintery*_V, *vacation*_V), and for their generation also three conversion rules can be postulated. Cf.:

- 2a: If *F* is an entity which is put on/in entity *E* denoted by *N*, then *V* converted from *N* can be used to mean putting *F* on/in *E*. (e.g. *ground* the planes, *beach* the boat, *shelve* the books; *headquarter* the troops, *jail* the prisoner, *room* at the Waldorf)
- 2b: If *F* is an entity which is naturally contained in entity *E* denoted by *N*, then *V* converted from *N* can be used to mean removing *F* from *E*. (e.g. *mine* the gold, *quarry* the gold, *pod* the peas)

¹³ The motivations of forming the complex classes of location/duration verbs, agent/experiencer verbs and goal/source verbs are given in Clark and Clark (1979).

- 2c: If *N* denotes a time period *T* related to a place *P*, then *V* converted from *N* can be used to mean spending *T* in *P*. (e.g. *summer* in France, *holiday* in Spain, *honeymoon* in Hawaii)

5.2.3 Agent and experiencer verbs

Similarly to the previous subclass, agent and experiencer verbs also evoke two conceptual metonymies, AGENT FOR A CHARACTERISTIC ACTIVITY OF THAT AGENT and EXPERIENCER OF AN EVENT FOR THE EVENT. But unlike location and duration verbs, all verbs belonging to this subclass pertain to one single semantic pattern, ‘act as typical of N’ (e.g. *referee*_v, *police*_v, *boycott*_v), and their generation requires the postulation of two conversion rules. Cf.:

- 3a: If *N* denotes a person *P* with a specific job or occupation, then *V* converted from *N* can be used to mean acting as (is typical of) *P*. (e.g. *umpire* the match, *police* the park, *tutor* the boys, *escort* the ambassador, *boss* the employee)
- 3b: If *N* denotes a person *P* being involved in, or exposed to, an event *R*, then *V* converted from *N* can be used to mean *P*’s experiencing *R*. (cf. *witness* the accident, *boycott* the store)

5.2.4 Goal and source verbs

In spite of the fact that two semantic patterns, namely ‘make/turn x into N’ (e.g. *widow*_v, *scapegoat*_v) and ‘make x from N’ (e.g. *piece*_{N>v}, *letter*_v), can be ascribed to verbs constituting this subclass, and that these verbs evoke two conceptual metonymies, RESULT FOR THE ACTION THAT BRINGS ABOUT THAT RESULT and COMPONENT PARTS OF A WHOLE FOR THE ACTION THAT PRODUCES THE WHOLE, one rule seems to be sufficient to account for their generation:

- 4: If *N* denotes an entity or state *S* functioning as the goal or source of an activity involving *Z*, then *V* converted from *N* can be used to mean making/turning *Z* into *S* or making *S* from *Z*. (e.g. *knight* Gawain, *orphan* the child, *fool* the man, *group* the actors, *pod* the seals, *swarm* the bees; *pile* the money, *carpool* the people, *loop* the rope, *powder* the aspirin, *piece* the quilt together, *word* the sentence)

5.2.5 Instrument verbs

All verbs constituting the largest subclass of conversion verbs pertain to one semantic pattern, ‘act using N or as if N’ (e.g. *hammer*_v, *helicopter*_v). They evoke the conceptual metonymy, INSTRUMENT FOR THE ACTION INVOLVING THE USE OF THAT INSTRUMENT, and the rule underlying them can be formulated in the following way:

- 5: If *N* denotes an instrument *I* of an action *J*, then *V* converted from *N* can be used to mean performing *J* by means of *I*. (e.g. *hammer* the nail, *club* the man over the head, *lance* the armour)

5.2.6 Animal verbs

Animal verbs, belonging to the subclass of agent and experiencer verbs or to the subclass of goal verbs, result from the metonymic mappings expressed either by conceptual metonymy ¹ANIMAL FOR THE ACTIVITY/BEHAVIOUR (PERCEIVED AS) TYPICAL OF ²ANIMAL (see section 2) or by the conceptual metonymy RESULT FOR THE ACTION THAT BRINGS ABOUT THAT RESULT. Rule 6a accounts for animal verbs belonging to the subclass of agent and experiencer verbs, whereas rules 6b and 6c account for animal verbs belonging to the subclass of goal verbs. Cf.:

- 6a: If *N* denotes an animal *M* with a set of salient (physical and/or instinctual) properties, then *V* converted from *N* can be used to mean a human action or behaviour (perceived as being) similar to *M*'s (typical) action or behaviour. (e.g. The General Director *ferreted* in his breast pocket for his reading glasses. (CEGM))
- 6b: If *N* denotes an animal *M* commonly hunted by humans or used by humans to hunt for other animals *O*, then *V* converted from *N* can be used to mean either hunting for *M* or hunting for *O* by means of *M*. (e.g. The tenants ... have permission to *ferret* and dig rabbits. (OED2); He wished to take it [the dog] *ratting*. (OED2))
- 6c: If *N* denotes the young of an animal *M*, then *V* converted from *N* can be used to mean bringing *M* forth. (e.g. About September they take their Mares into the house again where they keep them till they *foal*. (OED2))

5.3 A>V conversions

Verbs making up this class of conversion verbs fall into two subclasses according to the semantic patterns they pertain to; these are 'make x A' (e.g. *black_V*, *still_V*) and 'x becomes A' (e.g. *dim_V*, *thin_V*). The conceptual metonymies evoked by them are PROPERTY FOR THE ACTION THAT BRINGS ABOUT THAT PROPERTY and PROPERTY FOR THE PROCESS THROUGH WHICH THAT PROPERTY IS ASSIGNED, so the postulation of two rules is necessary to account for the generation of verbs belonging to the two subclasses. Cf.:

- 7a: If *A* denotes a salient property *P* of entity *E*, then *V* converted from *A* can be used to mean bringing about *P* of *E*. (e.g. The hot sun had *stilled* the water. (OED2))
- 7b: If *A* denotes a property *P* assigned to entity *E*, then *V* converted from *A* can be used to mean assigning *P* to *E*. (e.g. And then the lights of the chandelier *dimmed*. (BNC))

5.4 CLOSED CLASS>V conversions

In this class of conversion verbs two categories of inputs are of special interest: locative particles or adverbs (e.g. *down*, *out*) and interjections (e.g. *boo*, *tut*). The metonymic mapping motivating verbs converted from the former can be best described in terms of the conceptual metonymy GOAL/END-STATE FOR THE MOTION ORIENTED TO THAT GOAL/REACHING THAT END-STATE. Verbs converted from the latter type of inputs, on the other hand, appear to result from the specific metonymic mappings EXCLAMATION FOR THE VERBAL ACTION PERFORMED BY THAT EXCLAMATION and ONOMATOPOEIA FOR THE VERBAL ACTION PERFORMED BY THE

UTTERANCE OF THAT ONOMATOPOEIA. Both types of conversion verbs, functioning as speech act verbs, emerge from the Action ICM and the following two underlying rules can be postulated for them:

- 8a: If *PART/ADV* denotes the direction *D* of action/motion *M*, then *V* converted from *PART/ADV* can be used to mean *M*-ing in *D*. (e.g. No one throws things away any more. They ‘out’ them. (OED2); Storms *downed* trees and power lines. (OALD8))
- 8b: If *INTERJ* marking the emotional state *E* of *P* is converted to *V*, then *V*, functioning as a speech act verb, can be used to mean *P*’s experiencing or displaying *E*. (e.g. François Mauriac...tried to *boo* the singer off the stage. (OED2); The nurse rushed in, *tutting* with irritation. (LDOCE); A young man is being *hailed* a hero tonight after rescuing two children. (LDOCE); He stood upon an old wall and *hurrahed* the people on. (OED2))

5.5 *V>N conversions*

As was argued in section 2, similarly to *N>V* conversions *V>N* conversions also emerge from the Action ICM due to the partial reversibility of metonymic mappings. Concretely, nouns converted from verbs result from the mapping of the action proper (expressed by the predicate) onto one of its participants, such as the agent, instrument, etc. The metonymic mapping characteristic of this class can be expressed by the following generic conceptual metonymy ACTION FOR A PARTICIPANT/INSTANCE OF THE ACTION. The rule underlying this class of conversion is (a few specific metonymies were mentioned in (2b) above):

- 9: If *P* is a participant or an instance of action *A* expressed by *V*, then *N* converted from *V* can be used to mean *P*. (e.g. *Kickoff* is at 3.00. (LDOCE); His addiction turned him into a *cheat* and a liar.)

5.6 *A>N conversions*

Conversions belonging to this class, as was also stated in section 2, emerge from the Category-and-Property ICM where physical, physiological, intellectual, mental and other salient properties are mapped onto their human and non-human carriers and as a result of this metonymic shift these properties come to stand for their carriers. The metonymic mapping rendering the conversion of nouns possible can be described in terms of the generic conceptual metonymy DEFINING PROPERTY FOR CATEGORY (Radden & Kövecses 1999: 35). Examples of possible specific conceptual metonymies derived from this generic metonymy are shown in (5) in section 2. *A>V* conversions result from the operation of the following two rules:

- 10a: If *A* denotes a salient property of entity *E*, then *N* converted from *A* can be used to mean *E*. (e.g. This was no place for the *living*. (BNC); The next day the *unbelievable* happened, and you entered the Spanish class for foreigners. (BNC))
- 10b: If *A* denotes a salient colour associated with the entity *E*, then *N* converted from *A* can be used to mean *E*. (e.g. The *Blacks* won the match 8-5. (BNC); The *Greens* remained the third strongest party with 0.2 per cent more than before at 8.4 per cent. (BNC))

5.7 Morphological constraints on the application of conversion rules

Conversion rules proposed in sections 5.2-5.6 specify semantic conditions or constraints concerning the respective input and output categories, such as N, V, A, PART/ADV, CLOSED CLASS and so on. In addition to semantic constraints, directly related to treating conversion as semantic derivation (see section 2.2), there are morphological or morphosyntactic constraints as well which are imposed on input items and which also affect the applicability of conversions rules. Note that the only morphosyntactic constraint concerning the output items of conversion is that they must be open class words, namely adjectives, nouns and verbs.

The most well-known morphological constraint is related to the conversion of verbs from derived (complex) nouns. Drawing on Marchand (1963), Bauer (1983: 227) claims that derived nouns can be converted to verbs if lexical or token blocking, i.e. the existence of a word with the same meaning is not a real concern. To illustrate this point, he mentions the examples $sign_N > sign_V \rightarrow signal_N > signal_V$ and $commit_V \rightarrow commission_N > commission_V$, in which $signal_V$ and $commission_V$ are not precluded by the semantically different $sign_V$ and $commit_V$ (*ibid.*). By contrast, if token blocking is a real concern, no conversion is supposed to take place, as in the case of the derived noun *arrival* from which the conversion of **arrival_V* with the meaning 'arrive' is disallowed due to the existence of the verb *arrive* with the same meaning. In respect of N>V conversion, however, there is a more significant constraint to consider, and this is the difference between the eligibility of native (Germanic) and non-native (Latinate) nouns as input bases for denominal conversion. It can be stated with great certainty that native (or nativized) derived nouns suffixed with *-er*, *-ship*, *-ness*, *-ity* and probably with many other suffixes normally do not undergo conversion to verbs. Exceptions include nouns such as *hostess_N* (> *hostess_V* 'to act as a hostess') and some instrumental nouns in *-er*, e.g. *chopper_V* (< *chopper_N*) 'to fly by chopper', *glider_V* (< *glider_N*) 'to fly by glider', *stretcher_V* (< *stretcher_N*) 'to carry on a stretcher', *sweeper_V* (< *sweeper_N*) 'to use a sweeper' (Clark & Clark 1979: 773, 776-779). On the other hand, non-native derived nouns are converted to nouns relatively freely: cf. *pressure_V* 'to use pressure; pressurize', *proportion_V* 'to adjust sth to sth' (as in *to proportion expenditure to one's gains*), *proposition_V* 'to propose sexual intercourse', *commission_V* 'to give a commission', *engineer_V* 'to arrange or cause, esp. by cunning or secret means'.

As regards the conversion of verbs from complex adjectives, it seems that verbs can be converted from (disyllabic) denominal adjectives in *-y* (e.g. *dirty_{A>V}*, *bloody_{A>V}*, *ready_{A>V}*), but not from denominal adjectives derived by means of other suffixes (cf. **agreeable_{A>V}*, *beautiful_{A>V}*, **childish_{A>V}*, **fantastic_{A>V}*, **furious_{A>V}*).

Some morphological constraints concerning V>N conversions are also possible to identify. One them is that derived verbs, native and non-native alike (e.g. *baptize*, *justify*, *methanate*, *strengthen*, *enlarge*, *befriend*), unanimously resist nominalization through conversion (see also Myers 1984: 57-61). Another, somewhat weaker constraint imposed on the conversion of strong verbs to nouns is that they tend to occur as parts of idioms like *in the know*, *on the fly*, *have the bends*, *it's worth a go*, *in the long run* or in combination with light verbs such as *have a go*, *have a swim*, *take a ride* (cf. Marchand 1963: 376, Martsa 2010: 148, 151) and not as syntactic subjects and objects per se (cf. Biese 1941: 282-316). A further morphological constraint is that while compound nouns relatively freely undergo conversion to verbs (cf. *grandstand_{N>V}*, *sailplaner_{N>V}*, *snowball_{N>V}*, *wallpaper_{N>V}*), to form nouns from compound verbs, having been back-formed from compound nouns, is not permissible in all probability

due to token blocking (cf. **air-condition*_{V>N}, **baby-sit*_{V>N}, **back-form*_{V>N}, **stage-manage*_{V>N}).

6 Summary and conclusions

It has been proposed in this paper that English conversion, commonly defined as a morphologically unmarked word-formation technique, must be seen as a process of semantic derivation, rather than morphological or syntactic derivation, based on metonymic mappings adhering to different idealized cognitive models, out of which the idealized cognitive model of action is of primary importance. It was also argued that this interpretation of conversion, drawing on the tenets of cognitive semantics, makes it necessary to reconsider and even abandon the standard categorial view of polysemy. Concretely, the fact that in conversion the meaning(s) of one of the pair words belonging to a word category is/are systematically linked to, or derived from, the meaning(s) of the other homographic pair word belonging to another word category allows for an intercategorial view of polysemy. In advocating this view, it was demonstrated that although the meaning of the output word, as a rule, is directly predictable from the meaning of the input word, it also happens that the derived meaning of the output word is inferable not directly from the respective (lexicalized) sense(s) of the input word but from the encyclopaedic knowledge (taken in the Langackerian sense) incorporated in its lexical meaning.

It has been argued that the productivity of conversion in general directly follows from considering conversion as semantic derivation motivated by metonymic mappings. In the paper an attempt was made to justify this claim by identifying a number of conversion rules and thereby substantiating Quirk et al.'s (1985) and Štekauer's (1996) respective claims, quoted in the *Introduction*, as to the prominence and diversity of conversion rules and the enormous potential productivity of English conversion.

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