Chapter 7

Linguistic creativity and mental representation

In this thesis, the following main topics were investigated: linguistic creativity, mental representation and (intercategorial) polysemy. It became clear that there are currently two opposing and mutually exclusive views of linguistic creativity, namely generative productivity and lexical creativity. In the formal, typically Chomskyan view of productivity (Chomsky 1966), linguistic creativity can be accounted for by a finite stock of algorithmic rules, some of which are recursive, using a stock of lexical entries in the mental lexicon. The focus of this tradition was on syntax and on productive word formation rules (such as compounding and derivation), as well as on the competence of an ideal mother-tongue speaker. Lexical creativity, on the other hand, involved mainly the formation of new words and new uses of words in the lexical component of a language. Processes such as metaphor, metonymy, synecdoche and irony were studied, mostly within the framework of diachronic lexical semantics.

In Chapter 3, the nature and scope of linguistic creativity were investigated, and a survey of various types of linguistic creativity was undertaken, including amongst other things, formal productivity, lexical creativity, grammaticalisation and the

creation of discourse and other forms of language use (including literary art, which would normally be seen to fall outside the scope of linguistics). It was shown that linguistic creativity involves a formal, structural aspect, as well as a meaning aspect, and that to focus on one aspect to the exclusion of the other (as was done in the 20th century) leads to the simplification and eventual loss of a linguistically rich and fundamental concept in language studies. Chomsky (1980) declared linguistic creativity a 'mystery' and an 'unscientific' problem, and Fischer (1997 and 2000) 'dissolved' the problem of linguistic creativity. Contrary to this dead-end argument, an alternative was suggested in Chapter 3, which concluded with a new and diversified definition of linguistic creativity:

> *(Linguistic) Creativity is an essential and pervasive, but multi-dimensional characteristic of all human beings (irrespective of age, education, intelligence, social status or (non)-artistic bent). Linguistic creativity is primarily the online activity of **making new meaning** by a speaker (in the broadest sense of the user of language in all forms and in all mediums), and the re-creation and re-interpretation of meaning(s) by a receiver. Linguistic creativity is secondarily observable as a feature or product in a language. Linguistic creativity is a graded phenomenon ranging from the more conventional and predictable to the less conventional and unpredictable, and it is manifested in all domains of language (lexis, grammar, text and discourse, as well as medium), the results of which may or may not become*

conventionalised and therefore entrenched in a particular language.

It was argued that linguistic creativity is fundamentally an empirical phenomenon that should be accounted for by any cognitive linguistic theory that makes a claim to psychological reality. Since the notion of *making new meaning* is central to this definition of linguistic creativity, Chapter 4 was devoted to a survey of current semantic theories. Relevant semantic theories were discussed as 'kinds' of theories or (types of) approaches, rather than by looking at specific theories or models. The methodological and substantive contributions of each approach were noted, but it became apparent that the only substantive contribution that formed part of these semantic approaches is the issue of a *concept*. This led to a closer look at the way in which the psychologistic / cognitive / mentalist approaches in semantics handled the notion of a concept and, particularly its mental representation. Psychologistic theories were defined as those approaches that focus on the psychologically represented linguistic knowledge of speakers. It was found that the notion of an abstract, static, fixed, well-defined and canonical concept forms the basis for the cognitive modelling of lexical meaning in most semantic approaches, although some alternatives have been presented. Since the issue of the mental representation of (linguistic) concepts is a fundamental and as yet unresolved issue, it was proposed that linguistic creativity, as defined at the end of Chapter 3, should be used as a criterion for (psychologistic / cognitive /

mentalist) theories of semantics, and of linguistic theories in general. The main problem addressed in this thesis was therefore the following:

What is the nature of the lexical knowledge of normal, adult, mother-tongue speakers of a language and the mental representation of this knowledge, so that it can form the basis for the cognitive processes that will enable speakers to be linguistically creative?

In Chapter 5, (intercategorial) polysemy was introduced as a specific example of an empirical phenomenon illustrating linguistic creativity. In this approach, linguistic creativity is seen as so fundamental to the linguistic abilities of human beings that it can be used as a criterion for cognitive linguistic theories. It was argued that polysemy in English, and particularly intercategorial polysemy, provides an ideal empirical base for this approach, since it is both a semantic and a productive formal phenomenon, and as such represents the multi-dimensional nature of linguistic creativity. Two approaches to (intercategorial) polysemy were reviewed: the representational-derivational model and the network-activation model. In Chapter 5 a representative set of test data of (intercategorial) polysemy (ranging from the conventional to the completely novel) was used to test the two theoretical models with regard to the way in which they are able, in principle, to account for the linguistic creativity manifested in the test data set. It was shown that neither the derivational-representational model nor the network-activation model could account

for novel intercategorial polysemy, particularly in terms of the online comprehension **and** production of these kinds of expressions.

In Chapter 6, the theory of conceptual integration developed by Fauconnier and Turner (2002) was presented. One of the objectives of this theory is to account for the online production and comprehension of innovative thought and language − as such it is a general cognitive theory that is meant to apply to linguistic phenomena as well. In addition to their general cognitive claim, Fauconnier and Turner (2002) make very specific semantic and grammatical claims regarding the ability of the theory of conceptual integration to account for linguistic creativity in general, and polysemy in particular (cf. Chapter 6). Gibbs (2000: 349) states that "blending theory is not a single theory that can be studied and potentially falsified within a single … test. Instead, blending theory is a broad framework that suggests a variety of localized hypotheses each of which may be … examined". The blending analyses in Chapter 6 focus on the particular claims relating to polysemy and have shown them to be justified. The analyses of literal, metaphorical and metonymical examples of N-V polysemy, as well as an example of A-N-V polysemy, have shown that intercategorial polysemy can be accounted for by using the typical mechanisms of conceptual integration. In all cases, the formal patterns of intercategorial polysemy (N-V, as well as A-N-V) activate the same kinds of conceptual integration networks with the same kinds of mapping schemes, and

both the interpretation and the production of completely novel examples of intercategorial polysemy can be accounted for by using the same principles and mechanisms that were used for the more typical cases. Clark and Clark (1979: 782-783) make a distinction between what they call fixed expressions and contextuals. They argue that examples of intercategorial polysemy are contextuals in that they have an infinitely large number of potential senses, their interpretation depends on the context and mutual world knowledge as well as cooperation between speaker and hearer (cf. also Schneider 1988: 158). Clark and Clark (1979: 788-795) give an outline of what this mutual world knowledge is (both in terms of general and in terms of specific knowledge). The proposals by Clark and Clark (1979) are not only fully compatible with the blending analysis in Chapter 6, this blending analysis also provides independently justified and very specific conceptual mechanisms on how the interpretation of these novel examples takes place. Clark and Clark (1979) focus only on the interpretation of novel examples of intercategorial polysemy, whereas an advantage of a blending analysis is that it can explain the production (creation) of these novel examples as well. Geeraerts (1993: 255) also favours a flexible approach in which there are both permanently stored meanings and procedurally derived meanings (cf. also Allwood (1999) on meaning potentials). The question for the theory of conceptual integration is whether conceptual integration takes place in all cases, or only in special, unusual or perhaps novel cases (cf. Gibbs 2000:351). Harder (2003) argues, for example,

that blending is only required in the more complex cases.

Geeraerts (1993: 260) comes to the conclusion that the tremendous flexibility encountered in polysemy seems to require a procedural (or what he calls a "processual") conception of meaning: "instead of [regarding] meaning as a thing, meaning as a process of sense creation would seem to become our primary focus of attention" (cf. what Hendrikse (1996b) critically refers to as the container metaphor, and Taylor (2003: 44) calls the corpus and cut-and-paste model). In my view, the theory of conceptual integration suggests the following general principles underlying the nature of the mental representation of linguistic knowledge:

Principles regarding the nature of the mental representation of linguistic knowledge:

a)   *There is no intermediate conceptual-linguistic level in the mind, i.e. there is no container-like mental lexicon with mini-container-like lexical entries; rather lexical forms are 'empty' (of meaning and syntactic information) phonological and/or orthographic forms that link directly into our general (encyclopaedic) knowledge base and cognitive systems.*

b)   *(Linguistic) meaning is not a 'thing' that resides in a container in our minds*

that can be described, but it is rather the result of a continuous and dynamic process of creative construal that is carried out in working memory for each and every individual (linguistic) event or situation.

c) *Our general (encyclopaedic) knowledge base (referred to in (a)) is structured in the form of event frames and cognitive models which are directly grounded in experiential knowledge, i.e. in how we physically, mentally, emotionally, socially and culturally interact with, and perceive and experience the world. This includes general cultural knowledge, which may be new or entrenched, as well as personal episodic knowledge stored in long-term memory.*

d) *This general (encyclopaedic) knowledge base in the form of event frames and cognitive models is laid down in the brain in the form of complex interconnected neural networks. As such it is not a case of the 'mental re-presentation' of linguistic knowledge, as a case of the existence of physical patterns in the brain of an individual.*

e) *The general knowledge base (in c) above), is selectively recruited, amongst other things, into mental spaces in working memory for the local and immediate purposes of thinking, speaking and acting in the world.*

f) *The mental spaces (in e) above) are not static knowledge configurations but*

are dynamically activated, created, fused, compressed and connected by means of the general cognitive process of conceptual integration.

These general principles have been shown to be fully supported by the successful handling of the particular phenomenon of intercategorial polysemy in the blending analysis given here. To enable the theory of conceptual integration to become a well-established theory, the following aspects need to be attended to:

1. The psychological and neurological grounding of the theory should be investigated more fully (cf. Gibbs 2000 and Grady 2000).

2. Since conceptual integration is a general cognitive theory that is meant to account for linguistic phenomena, the theory should be tested against a wider range of both linguistic and general cognitive phenomena. Apart from the fact that new and a wider array of linguistic phenomena should be investigated, it is of crucial importance that both intercategorial polysemy as an empirical phenomenon and conceptual blending as a theoretical model is applied and tested with a wider range of language types than is currently the case. In particular, languages with a complex morphology such as the agglutinating African languages should be investigated for blending phenomena at the lexical level (cf. Mandelblit 2000).

3. Computerised simulations of various phenomena as done by Veale and

O'Donoghue (2000) can provide additional support for the theory.

4. The interaction of conceptual integration with other cognitive and linguistic mechanisms such as categorisation, entrenchment, prototypicality, naturalness, metaphor, metonymy, perspectivisation, economy and relevance should be more comprehensively investigated.

5. The speaker's choice of grammatical construction, such as was extensively highlighted in Section 3.2 in the survey of linguistic creativity, and which was again mentioned in terms of which particular grammatical construction gets activated, should be investigated, possibly by means of psycholinguistic experimentation.

Broccias (2004: 587), in a review of TWWT, calls conceptual integration "a challenging research programme", but mentions two specific shortcomings. Firstly, the relationship between grammatical constructions and blending needs to be spelt out more clearly. The blending analysis presented here contributes to this challenge because intercategorial polysemy has a specific grammatical aspect. Secondly, Broccias (2004) mentions that a fruitful dialogue with the past and with alternative analyses was not done in TWWT. This is a criticism I agree with, particularly as regards the interaction of conceptual integration with other cognitive mechanisms and motivations. For example, the relationship between the standard cognitive motivation of 'economy' (cf. Croft 1990) and the blending notions of

'compression' and 'achieve human scale' needs to be addressed. Fauconnier and Turner (2002) also use the concept of 'relevance' without giving it any specific content or referring to previous work on this notion (Sperber and Wilson 1986). Another issue that needs clarification, is the relationship between the 'partial' activation of information from the frames of background knowledge, and standard notions in Cognitive Linguistics such as 'salience' and 'perspectivisation' (Taylor 1991).

In conclusion, the phenomenon of intercategorial polysemy was approached from two related but previously unconnected perspectives, namely that of *linguistic creativity* and *mental representation*, particularly against the background of **creative cognition** as an approach in cognitive science. It was argued that the creativity that is part and parcel of the linguistic abilities of each and every human being, has long been neglected in the study of linguistics, and should, in fact, form the background of studies such as these in lexical creativity. The main problem that was addressed was the question as to the nature of the lexical knowledge of speakers and its mental representation, so that it can form the basis for the cognitive processes that will enable them to be linguistically creative. This study has found that linguistic knowledge in general, and lexical knowledge in particular, cannot be regarded as a fixed and static separate module from general knowledge, but rather, linguistic knowledge is closely intertwined with all the other cognitive

faculties (including general, individual, cultural and experiential knowledge). The mental lexicon is not a separate cognitive or linguistic module that consists of a set of the words that a speaker knows, with their respective meanings and categories linked to them (as in conventional dictionaries); rather the mental lexicon, as a set of lexical entries consisting of a specification of the meaning(s) of the concepts and their respective category labels, is a derived phenomenon which is the result of an intricate interplay between various types of knowledge, represented in frames and cognitive models, and various cognitive processes such as conceptual integration, metaphor, metonymy, categorisation, perspectivisation, etc.