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TOWARDS A THEORY OF METONYMY

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1 The cognitive view of metonymy

Unlike metaphor, metonymy has always been described in conceptual, rather than purely linguistic, terms. In analyzing metonymic relationships, even traditional rhetoric operated with conceptual notions such as CAUSE FOR EFFECT, CONTAINER FOR CONTENTS, etc. Still, metonymy was mainly seen as a figure of speech, i.e. it was basically thought of as a matter of language, especially literary or figurative language. This view of metonymy is reflected in standard definitions, which tend to describe metonymy as "a figure of speech that consists in using the name of one thing for that of something else with which it is associated" (*Webster's Third New International Dictionary*). These kinds of definition thus claim that metonymy operates on names of things, involves the substitution of the name of one thing for that of another thing and assumes that the two things are somehow associated. The cognitive view of metonymy espoused here makes different assumptions:

(i) Metonymy is a conceptual phenomenon;
(ii) Metonymy is a cognitive process;
(iii) Metonymy operates within an idealized cognitive model.

1.1 Metonymy is a conceptual phenomenon

As already pointed out by Lakoff and Johnson (1980: Ch. 8), metonymy, like metaphor, is part of our everyday way of thinking, is grounded in our experience, is subject to general and systematic principles, and structures our thoughts and actions. Lakoff and Johnson's example of the metonymy in *She's*

just a pretty face illustrates the conceptual nature of metonymy. We derive the basic information about a person from the person's face. The conceptual metonymy THE FACE FOR THE PERSON is part of our everyday way of thinking about people.

The conceptual nature of metonymy is even more clearly manifested in the structure of categories. In his discussion of metonymic models, Lakoff (1987: 79-90) demonstrates that a member of a category may stand for the whole category and thereby account for prototype effects. His example of the stereotypical subcategory 'housewife mother' illustrates this point: we tend to think of the category 'mother' in terms of this stereotypical member even if the submember remains unnamed. Since most categories have prototypical structure, we may conclude that basically all categories are metonymically structured.

1.2 Metonymy is a cognitive process

The traditional view defines metonymy as a relationship involving substitution. This view is reflected in the notation generally used for stating metonymic relationships, namely X STANDS FOR Y. Metonymy does, however, not simply substitute one entity for another entity, but interrelates them to form a new, complex meaning. To use Warren's (1999: 128) example: "We do not refer to music in *I like Mozart*, but to music composed by Mozart; we do not refer to water in *The bathtub is running over*, but to the water in the bathtub." Metonymic relationships should therefore more adequately be represented by using an additive notation such as X PLUS Y. For the sake of simplicity we will keep the traditional formula X FOR Y, with the proviso, however, that the metonymic process is not understood to be one of substitution.

Following Langacker (1993: 30), we will think of metonymy as a cognitive process in which one conceptual entity is mentally accessed via another entity. The metonymic entity serves as a "reference point" that affords mental access to another conceptual entity, the intended target.[1] We will refer to the reference-point entity as the 'vehicle' and to the intended entity as the 'target'. In the example of *She's just a pretty face*, the 'pretty face' serves as the vehicle for accessing the 'person' as the target.

1.3 Metonymy operates within an idealized cognitive model

The notion of 'contiguity' is at the core of most definitions of metonymy.[2] Lakoff and Johnson (1980) think of contiguity in terms of the whole range of

conceptual associations commonly related to an expression; Lakoff (1987) accounts for metonymic contiguity within the framework of idealized cognitive models (ICMs); Croft (1993) deals with contiguity relations in terms of encyclopedic knowledge representation within a domain or domain matrix; and Blank (1999) and Panther and Thornburg (1999) describe the network of conceptual contiguity by using the notion of frame and scenario.

While all of these models are comparable with respect to claiming a cognitive basis, we believe that Lakoff's (1987) framework of 'idealized cognitive models' (ICMs) may capture metonymic processes best. The ICM concept is meant to include not only people's encyclopedic knowledge of a particular domain but also the idealized cultural models they are part of.

1.4 Theoretical issues of metonymy

On the basis of the three cognitive properties of metonymy discussed above, we will define metonymy as follows:

> *Metonymy is a cognitive process in which one conceptual entity, the vehicle, provides mental access to another conceptual entity, the target, within the same idealized cognitive model.*

This working definition allows us to raise further important empirical and theoretical issues. We believe that, amongst others, the following questions need to be addressed in developing a theoretical framework of metonymy.

A first question we need to ask is: where do we find metonymy? According to the above definition, metonymy may occur wherever we have idealized cognitive models. We have ICMs of everything that is conceptualized, which includes the conceptualization of things and events, word forms and their meanings, and things and events in the real world. We will refer to these types of conceptualization as 'ontological realms'.

A second question which needs to be addressed relates to the 'mental bridge' which allows the conceptualizer to access the desired target. This question concerns the nature of the relationship between the vehicle and one or more targets. Metonymy tends to make use of entrenched relationships within an ICM. The question that needs to be answered here is what types of conceptual relationships within an ICM may give rise to metonymy.

A third question pertains to the choice of vehicle and target. Unlike metaphorical mappings, which tend to be unidirectional, metonymic mappings are in principle reversible. This was already implicitly noticed in traditional

approaches by listing both directions of a metonymic relationship such as CAUSE FOR EFFECT and EFFECT FOR CAUSE. We therefore need to ask if there are any preferred metonymic construals and, if this is the case, which 'cognitive principles' govern the selection of one type of vehicle entity over another. To the extent that there are such preferred routes, these will define the unmarked, or 'default', cases of metonymy.

A fourth question we need to ask relates to marked, or 'non-default', cases of metonymy. Given that there are default routes of metonymic construal, are there any principles that govern the choice of non-default vehicles?

The following four sections of this paper will be devoted to finding answers to these central questions which, for convenience, are summarized below:

(i) What are the ontological realms in which metonymy occurs? (Section 2);
(ii) What are the types of metonymy-producing relationships? (Section 3);
(iii) What are the cognitive principles that govern the selection of a preferred vehicle? (Section 4);
(iv) What are the overriding factors that yield 'non-default' cases of metonymy? (Section 5).

2 Ontological realms in which metonymy occurs

The following three ontological realms are distinguished for the present purpose: the realm of 'concepts', the realm of 'forms', in particular, forms of language, and the realm of 'things' and 'events'. These realms roughly correspond to the three entities that comprise the well-known semiotic triangle as developed by Ogden and Richards (1923: 11): thought, symbol, and referent. The interrelations between entities within the same ontological realm or across different ontological realms lead to different ICMs and possibilities for metonymy.

The pairing of a concept and a form establishes a sign and will be described as a 'Sign ICM'; the pairing of a thing or event and a sign, form or concept establishes a referential situation and will be described as a 'Reference ICM'; and the interrelation between two concepts, typically in conjunction with forms, will be described as a 'Concept ICM'. In as far as these ICMs lead to metonymy, the metonymies will be referred to as 'sign metonymy', 'reference metonymy', and 'concept metonymy'. Figure 1 illustrates the semiotic relationships that lead to a sign metonymy (1), the three types of reference

metonymy (2)-(4), and a concept metonymy (5). The arrows indicate the direction of the metonymic mapping from vehicle to target.

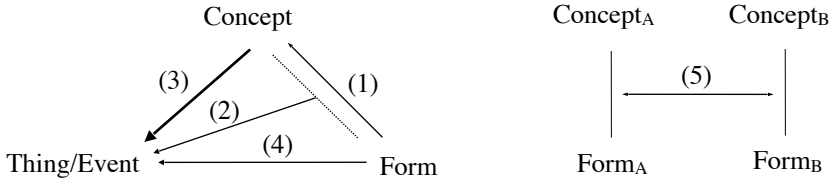

Figure 1. *Sign metonymy (1), reference metonymies (2, 3,4), and concept metonymy (5)*

2.1 Sign ICMs and sign metonymies

The Sign ICM unites a form and one or more concepts. Thus, the word form *dollar* or the dollar sign *$* are linked with the 'currency denomination of dollar', 'currency', or 'money' in general. As a rule, the form metonymically stands for the concept it denotes.

(1) FORM FOR CONCEPT: *dollar* for 'money'

The very nature of language is based on this metonymic principle, which Lakoff and Turner (1989: 108) describe as WORDS STAND FOR THE CONCEPTS THEY EXPRESS. Since we have no other means of expressing and communicating our concepts than by using forms, language as well as other communication systems are of necessity metonymic. It is also for that reason that we fail to notice the metonymic nature of language.

2.2 Reference ICMs and reference metonymies

Reference ICMs relate real-world entities to signs, concepts or forms. We thus have three types of Reference ICMs and possible metonymies, as shown in Figure 1. In all three types of reference metonymies, the metonymic target is the real-world thing or event.

The standard situation of reference involves signs, i.e. form-concept units, which stand for the thing or event referred to. We thus have the metonymy:

(2) FORM-CONCEPT FOR THING/EVENT: word *cow* for a real cow

Strictly speaking, the sign does not refer to the world of reality but to our mental representation of reality. For example, in the world of reality, an event of punching involves a series of subevents: folding one's fist, moving one's arm, bringing it into contact with an object, and recoiling it. A punching event thus has duration. Linguistically, however, *to punch* is a punctual verb and, as such, cannot be used to describe a durational event, as in *??It took five minutes to punch him* (Frawley 1992: 20ff). We do, however, firmly believe that words refer to the extensional world so that metonymy (2) has psychological validity.

In people's folk understanding of language, a concept or the form of a sign may refer to reality. Lakoff (1987: 168f) describes the former situation as "reference via meaning," and the latter as "doctrine of direct reference". According to the Reference-via-Meaning ICM, "words have inherent meanings (called *intensions*) and designate objects by virtue of those meanings" (Lakoff 1987: 168f). In this view, the meaning associated with the word *cow* is assumed to stand for any cow in the world of reality—in contrast to the set-theoretic account, in which 'cow' denotes the set or class of cows.

(3) CONCEPT FOR THING/EVENT: concept 'cow' for a real cow

The Direct-Reference ICM most clearly applies to the use of proper names for persons of that name. The name *John Smith* directly refers to the bearer of this name. In our folk theory of language, the Direct-Reference ICM has a much wider metonymic application. Stephen Tylor (1978: 168) points out that in our common-sense view of language words are names of things, not names of classes. Thus the word *cow* stands for the object cow.

(4) FORM FOR THING/EVENT: word-form *cow* for a real cow

2.3 Concept ICMs and concept metonymies

Concept metonymies involve a shift from Concept_A to Concept_B which may, but need not, be accompanied by a shift in form. The two concepts form part of the same ICM and are related to each other in some specific way. The following four types of concept metonymies may be distinguished.

(5) FORM_A-CONCEPT_A FOR FORM_B-CONCEPT_B: *bus*-'bus' for *bus drivers*-'bus-drivers'

(6) FORM-CONCEPT_A FOR CONCEPT_B: *mother*-'mother' for 'housewife-mother'

(7) FORM$_A$-CONCEPT$_A$ FOR FORM$_A$-CONCEPT$_B$: *White House*-'place' for *White House*-'institution'

(8) FORM$_A$-CONCEPT$_A$ FOR FORM$_B$-CONCEPT$_A$: *UN* for *United Nations*

The metonymic shift in (5) is the one most commonly associated with metonymy: two form-concept pairings which belong to the same ICM are interrelated. The metonymic relationship is that of control: a controlled entity, buses, is used to stand for its controlling entity, bus-drivers. The metonymy can thus be formulated as CONTROLLED FOR CONTROLLER.

The metonymic situation in (6) differs from (5) in that the target concept is not linked to a name. There may be different reasons for using this metonymy: the language may lack a word for the particular concept, the speaker may not be able to find a conventional name for the concept, or the speaker may not be aware of the different concepts. The metonymic relationship here is CATEGORY FOR A MEMBER OF THE CATEGORY.

The metonymic situation in (7) applies to polysemy, in which two senses of a word-form are relatable within the same ICM. Polysemy is a common way in which metonymic concepts manifest themselves in language (see Lakoff 1987 and Taylor 1995). Thus, the expression *White House* is lexically polysemous, with the senses of 'building' and 'executive branch of the US government'. The metonymy PLACE FOR INSTITUTION thus accounts for our understanding of *The White House did not intervene* in the sense of 'the US government did not intervene'.

The metonymic situation in (8) is characterized by a change in the form of an expression whose concept roughly remains the same. This metonymy applies to reductions of form as in clippings such as *exam* for *examination*, modifications of form as in the euphemism *What the heck are you doing?* for *What the hell are you doing?*, and substitutions by pro-forms such as pronouns.

3 Types of metonymy-producing relationships

Conceptual relationships within an ICM that may give rise to metonymy will be called 'metonymy-producing relationships'. The conceptual relationship that holds between an organ of perception and perception may give rise to metonymy, as in *The dog has a good nose*. However, not all relationships within an ICM can produce metonymies. For example, the nose cannot metonymically stand for the mouth, i.e. *I hit him in the nose* will not be understood to mean 'I hit him in the mouth'. Metonymy may only arise when

"the addressee's attention is directed to the intended target" (Langacker 1993: 30), i.e. when the intended target is more or less uniquely accessible. The more distinct vehicle and target are, the better is their relationship suited to be exploited metonymically. Thus, an ICM as a whole and its parts are generally conceptually distinct enough to license a metonymy from whole to part or part to whole.

The distinction between whole and part is in fact of paramount importance for metonymy. Given that our knowledge about the world is organized by structured ICMs which we perceive as wholes with parts, we suggest that the types of metonymy-producing relationships may be subsumed under two general conceptual configurations:

(i) Whole ICM and its part(s)
(ii) Parts of an ICM

Configuration (i) may lead to metonymies in which we access one part of an ICM via its whole or a whole ICM via one of its parts; configuration (ii) may lead to metonymies in which we access one part via another part of an ICM. This, of course, implies that the whole ICM is still present in the background.

The following typology of metonymy-producing relationships and metonymies is not meant to be exhaustive. It includes those types that are most frequently listed in classifications of metonymies and seem to reflect the most entrenched metonymic routes.

3.1 Whole ICM and its part(s)

The relationship between a whole and a part typically applies to things and their parts, where the notion of 'thing' is to be understood here in the schematic sense of Langacker (1991). Whole-part configurations are, however, also found in many other ICMs.

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(i) *Thing-and-Part ICM*: This ICM may lead to the two metonymic variants:

(9) a. WHOLE THING FOR A PART OF THE THING: *America* for 'United States'
b. PART OF A THING FOR THE WHOLE THING: *England* for 'Great Britain'

People often speak of *America* but mean one of its geographical parts, the

United States; conversely, people, especially foreigners, often speak of *England* but mean Great Britain, including Wales and Scotland.

A special type of WHOLE FOR PART metonymy is found in situations such as *Paul hit me* or *The car needs washing*, where *Paul* and *the car* may be said to stand as wholes for the parts 'Paul's fist' and 'the car's body', respectively. Langacker (1993: 31) describes these cases as "active-zone/profile discrepancies", where an entity's active zone is defined as comprising "those portions of the entity that participate most directly and crucially in that relationship".

The PART FOR WHOLE metonymy has traditionally been given special attention and classified as a metonymic type of its own under the name of synecdoche. Examples of synecdoches are usages such as *Those are cool wheels you have there* and the widespread use of body parts such as *hand, face, head* or *leg* for a person. In these situations, the entity that is most crucially involved in the ICM is metonymically highlighted.

(ii) *Scale ICM*: Scales are a special class of things, and the scalar units are parts of them. Typically, a scale as a whole is used to stand for its upper end, and the upper end of a scale is used to stand for the scale as a whole:

(10) a. WHOLE SCALE FOR THE UPPER END OF THE SCALE:
You're speeding again. for 'You are going too fast'
b. UPPER END OF A SCALE FOR THE WHOLE SCALE:
How old are you? for 'What is your age?'

The expression *speed* defines the whole scale of velocity but we locate the velocity in (10a) at, or even beyond, the upper end of the scale. Conversely, mention of the positive end of the scale in (10b) evokes the whole scale. It is only for the purpose of achieving special effects that the negative end of a scale may be used, as in *How young are you?*

(iii) *Constitution ICM*: This ICM involves the material or substance that constitutes an object. Substances are unbounded and therefore uncountable. A substance may, however, be conceived of as bounded, i.e. as object-like, and is then coded as a count noun, as in (11a). Conversely, an object may be conceived of as unbounded, i.e. substance-like, and is then coded as a mass noun, as in (11b).

(11) a. OBJECT FOR MATERIAL CONSTITUTING THE OBJECT:
I smell skunk. for 'the smell produced by a skunk'
b. MATERIAL CONSTITUTING AN OBJECT FOR THE OBJECT:
wood for 'forest'

(iv) *Event ICM*: As with things, an event as a whole may stand for one of its subevents, and a subevent may stand for the whole event.

(12) a. WHOLE EVENT FOR SUBEVENT: *Bill smoked marijuana.*
b. SUBEVENT FOR WHOLE EVENT: *Mary speaks Spanish.*

The event in (12a) involves as some of its subevents lighting a marijuana cigarette, taking it to one's lips, inhaling the smoke, etc. The inhaling part is probably felt to be the central and most important subevent and the one that is normally meant by the speaker. This is exactly the reason why Clinton needed to exclude that part when he argued that, as a young man, he smoked marijuana but did not inhale.

The habitual event in (12b) is understood to refer not only to Mary's spoken command of a language, but also to include the skills of comprehension, reading and writing. Among these linguistic skills, speaking stands out as the most salient part in one's command of a language. Also less salient subevents may serve as metonymic reference points evoking an Event ICM as a whole. In *They went to the altar*, an initial subevent stands for the whole Wedding ICM, and in *Our teacher had 100 essays to grade*, a final subevent stands for a whole ICM involving reading, correcting, and eventually grading students' papers.

Sentence (12b) also illustrates the way metonymy pervades the grammatical system. Habitual events occur in past, present and future time, but are described in the Present Tense. If we assume that the Present Tense ideally locates events in present time, its use for habitual events is metonymic. Another time/tense metonymy is found in the use of the Present Tense for future events as in *I am off* for 'I will be off' or in the robber's threat *The money or you're a dead man*, where the present moment figures prominently for the future event. We thus have the following PART FOR WHOLE time metonymies:

(13) PRESENT FOR HABITUAL: *Mary speaks Spanish.*
(14) PRESENT FOR FUTURE: *I am off.* for 'I will be off'

Metonymy may also operate with respect to an event's status of actuality or potentiality. Thus, we normally use premodifying attributive adjectives in describing permanent properties of a person or object, as in *He is an intelligent person*. In *He is an angry person*, however, the attributive adjective *angry* does not describe a person's permanent anger or his present fit of anger but his disposition to get potentially angry; hence it involves the metonymy ACTUAL FOR POTENTIAL. This metonymic relationship also occurs in its reverse form, in which a potential event is described as real. As Gibbs (1994), Thornburg and Panther (1997), and Panther and Thornburg (1999) have shown, conditions of a speech act may as parts stand for the speech act as a whole. For example, in using *can* in *Can you pass the salt?* the speaker highlights a precondition, namely the addressee's ability to perform the act, for the directive speech act. Since such speech acts with *can* convey the notion of potentiality, Panther and Thornburg describe this metonymy as POTENTIALITY FOR ACTUALITY. The relationship between actuality and potentiality may thus give rise to reverse metonymies:

(15) a. ACTUAL FOR POTENTIAL: *He is an angry person.*
for 'he can be angry'

b. POTENTIAL FOR ACTUAL: *I can see your point.*
for 'I see your point'

(v) *Category-and-Member ICM*: A category and its members stand in a kind-of relation. As shown by Seto (1999), kind-of relations need to be distinguished from part-of relations. The relations of taxonomy and partonomy, however, tend to be confused. This is reflected in the German term for 'subset', *Teilmenge*, literally 'part-set'. Taxonomic hierarchies may also be metaphorically seen as part-whole structures in which "[e]ach higher-order category is a whole, with the immediately lower categories being its parts" (Lakoff 1987: 287). We, therefore, feel justified in analyzing Category-and-Member ICMs as instances of the whole-part configuration.

(16) a. CATEGORY FOR A MEMBER OF THE CATEGORY:
the pill for 'birth control pill'

b. MEMBER OF A CATEGORY FOR THE CATEGORY:
aspirin for 'any pain-relieving tablet'

A special type of this metonymic relationship is that between 'generic' and 'specific', or a type and a token:

(17) a. GENERIC FOR SPECIFIC: *Boys don't cry.*
b. SPECIFIC FOR GENERIC: *A spider has eight legs.*

Sentence (17a) describes a generic statement about boys, but it might be used in the specific situation of a boy's crying, where it is understood specifically. Conversely, specific tokens may be used to stand for generic types. In the situation of 'generic reference' expressed in (17b), the indefinite article *a* is used to refer to spiders in general. As pointed out by Norrick (1981: 35), "any specific instantiation of a class calls forth the whole class." A single violin may stand for the class of violins and a musical note may stand for the musical key system as such. At a more general level, this metonymic relationship also underlies our interpretation of proverbs. As shown by Lakoff and Turner (1989: Ch. 4), proverbs such as *Blind blames the ditch* describe a specific situation but convey a general understanding, which again is applied to a specific situation at hand.[3]

Subtypes of this metonymy are AN INDIVIDUAL (AS A TYPICAL MEMBER OF A CATEGORY) FOR A CATEGORY, as in *every Tom, Dick and Harry*, and SPECIFIC CASE FOR GENERAL RULE, which "holds between laws and their concrete instantiations generally" (Norrick 1981: 37).

(vi) *Category-and-Property ICM*: Properties may either be seen metaphorically as possessed objects (PROPERTIES ARE POSSESSIONS) or metonymically as parts of an object. Categories typically evoke, and may metonymically stand for, one of their salient or essential properties and, conversely, a salient or essential property may evoke, and metonymically stand for, its category.

(18) a. CATEGORY FOR SALIENT PROPERTY: *brain* for 'intelligence'
b. SALIENT PROPERTY FOR CATEGORY: *blacks* for 'black people'

Some categories conventionally stand for specific properties such as *heart* for 'kind' or *Cadillac* for 'the best of'. Also certain well-known individuals may stand for an outstanding property they possess. When a person is described as a *Judas*, we know that he is meant to be 'treacherous', and when an upcoming star in linguistics is referred to as a *second Chomsky*, we have in mind his or her intellectual brilliance.

Stereotypical properties are evoked in our interpretation of 'colloquial tautologies' such as *Boys will be boys*. Since a tautology is literally

uninformative, it can only be interpreted meaningfully in the sense of a salient, typically stereotypical, property associated with the category. The tautology in *Boys will be boys* may, depending on the context, mean 'boys are unruly' or 'boys are cute and adorable' (Gibbs 1994: 345-351). All these examples are instances of a WHOLE FOR PART metonymy, which may be characterized as in (19a); conversely, salient properties as parts of a category may stand for the category as a whole as in (19b):

(19) a. CATEGORY FOR SALIENT PROPERTY: *Boys will be boys.* for 'unruly'

b. SALIENT PROPERTY FOR CATEGORY: *How do I find Mr. Right?*

(vii) *Reduction ICM*: A final type of a PART FOR WHOLE metonymy is found in the reduction of the form of a sign, which was already alluded to under (8) FORM_A-CONCEPT_A FOR FORM_B-CONCEPT_A. Its specific variant may be described as:

(20) PART OF A FORM FOR THE WHOLE FORM: *crude* for *crude oil*

The reduction of forms may involve sophisticated metonymic chains. For example, the abbreviation *tg* stands for a longer abbreviated form, *tgif,* which represents the whole expression *Thank God, it's Friday*; and even this exclamation may be seen as a part of the whole target sense: 'it's the weekend —let's enjoy ourselves'.

3.2 Parts of an ICM

This configuration relates conceptual entities that function as parts with respect to a whole ICM. It typically applies to entities within an event. Events are constituted by a relation and participants, and PART FOR PART metonymies tend to build on a relation and one of its participants or between two participants related.

(i) *Action ICM*: Action ICMs include relationships such as those between an ACTION and an INSTRUMENT used in the action, an ACTION and the RESULT of this action, etc. The Action ICM includes the following types of metonymic relationships, the first four of which are reversible:

(21) a. AGENT FOR ACTION: to *author* a book; to *butcher* a cow
b. ACTION FOR AGENT: *writer*; *driver*
(22) a. INSTRUMENT FOR ACTION: to *ski*; to *hammer*
b. ACTION FOR INSTRUMENT: pencil *sharpener*; screw*driver*
(23) a. OBJECT FOR ACTION: to *blanket* a bed; to *dust* the room
b. ACTION FOR OBJECT: to have a *bite*; the *flight* is waiting
(24) a. RESULT FOR ACTION: to *landscape* the garden
b. ACTION FOR RESULT: the *production*; the *product*
(25) MANNER FOR ACTION: to *tiptoe* into the room
(26) MEANS FOR ACTION: He *sneezed* the tissue off the table.
(27) TIME FOR ACTION: to *summer* in Paris
(28) DESTINATION FOR MOTION: to *porch* the newspaper
(29) INSTRUMENT FOR AGENT: the *pen* for 'writer'

With the exception of (29), INSTRUMENT FOR AGENT, all the Action metonymies listed above involve predicates either as the vehicle or the target and typically also involve a change of their word class: nouns are converted into verbs and verbs are nominalized. Noun-verb conversion and nominalization can therefore be seen as two complementary morphological processes leading to reversible metonymies.

The metonymic relationships listed in (21) - (28) are not restricted to changes of word classes. For example, the RESULT FOR ACTION metonymy may also arise within the same word class. Thus, the verb *to win* in its normal use describes the result of an event; in *Win a fortune!*, however, the imperative construction imposes the sense of an action such as gambling.

(ii) *Perception ICM*: Perception plays such an outstanding role in our cognitive world that it merits an ICM of its own. Since perceptions may also be intentional, the Perception ICM may cross-classify with the Action ICM. This applies to the metonymies INSTRUMENT/ORGAN OF PERCEPTION FOR THE PERCEPTION as in *to eye someone* and MANNER OF PERCEPTION FOR THE PERCEPTION as in *She squinted through the mailbox.* Non-intentional perceptions may produce the following reversible metonymies:

(30) a. THING PERCEIVED FOR PERCEPTION: *There goes my knee.* for 'there goes the pain in my knee' (Lakoff 1987: 511)
b. PERCEPTION FOR THING PERCEIVED: *sight* for 'thing seen'

(iii) *Causation ICM*: Cause and effect are so closely interdependent that they

tend to imply each other. The causation ICM may give rise to reversible metonymies:

(31) a. CAUSE FOR EFFECT: *healthy exercise* for 'the exercise bringing about the effect of good health'
b. EFFECT FOR CAUSE: *healthy complexion* for 'the good state of health bringing about the effect of healthy complexion'

Effects more readily serve as metonymic vehicles than causes, which is evidenced most clearly in the following subtypes of EFFECT FOR CAUSE metonymies:

(32) STATE/EVENT FOR THING/PERSON/STATE CAUSING IT:
She was my ruin.
(33) EMOTION FOR CAUSE OF EMOTION:
She is my joy. for 'she makes me feel happy'
(34) MENTAL/PHYSICAL STATE FOR OBJECT/PERSON CAUSING IT:
You are a pain in the neck. for 'you give me pain'
(35) PHYSICAL/BEHAVIORAL EFFECT FOR EMOTION CAUSING IT:
She was upset. for 'something distressed her'

A causal metonymy may also be seen in situations in which an action or a motion brings about, or is accompanied by, a typical sound, which together establish an ICM:

(36) SOUND FOR EVENT CAUSING IT: *The car screeched to a halt.*

Here, the screeching noise results when the car brakes are applied. Similar metonymic situations are illustrated in *The train whistled into the station; The fire trucks wailed out of the firehouse*, and *She rang the money into the till.*

Causal metonymies also permeate the field of perception. A percept may stand for its cause (37a), and a cause may stand for the percept (37b):

(37) a. SEEING SOMETHING DONE FOR MAKING SURE THAT IT IS DONE:
See that he gets his money. (Lakoff 1987: 437)
b. ACT OF FORMING A PERCEPT FOR PERCEPT:
to take a look (Norvig and Lakoff 1987: 204)

(iv) *Production ICM*: Production ICMs involve actions in which one of the participants is a product created by the action. The production of objects seems to be a particularly salient type of causal action. The Production ICM leads to various types of metonymic relationships in which the thing produced tends to be the intended target:

(38) PRODUCER FOR PRODUCT: I've got a *Ford.* for 'car'

Due to our close association of artists with their artistic productions and inventors with their inventions, the metonymies ARTIST FOR HIS WORK as in *They are playing Mozart tonight* and INVENTOR FOR THE THING INVENTED as in *macadam* establish particularly common subtypes of the PRODUCER FOR PRODUCT metonymy. A producer and the thing produced are conceptually different enough to warrant clear identification of their roles. This also applies to an instrument used for producing something or the place of production:

(39) a. INSTRUMENT FOR PRODUCT: Did you hear *the whistle?* for 'sound of the whistle'
b. PRODUCT FOR INSTRUMENT: to turn up *the heat* for 'the radiator'

(40) PLACE FOR PRODUCT MADE THERE: *china, mocha, camembert*

(v) *Control ICM*: This ICM includes a controller and a person or object controlled. It gives rise to reversible metonymies.

(41) a. CONTROLLER FOR CONTROLLED: *Schwartzkopf* defeated Iraq.
b. CONTROLLED FOR CONTROLLER: *The Mercedes* has arrived.

Control ICMs seem to be naturally expressed by using the CONTROLLER FOR CONTROLLED metonymy as in (41a), in which *Schwartzkopf* stands for the US Army that did the fighting. Making the same statement using the CONTROLLED instead of the CONTROLLER, as in *The US Army defeated Iraq*, does not evoke the controller reading. The CONTROLLED FOR CONTROLLER metonymy seems to apply only to situations in which the thing controlled is particularly salient or the controller is unknown, as in (41b).

The notion of control normally also underlies that of possession. For example, the user of an object is at the same time in control of the object used and possesses it. This situation gives rise to the metonymy OBJECT FOR USE OF OBJECT, as in Lakoff and Johnson's (1980: 35) example *Mrs. Grundy frowns*

on blue jeans, where the expression *blue jeans* stands for the wearing of blue jeans.

(vi) *Possession ICM*: The Possession ICM may lead to reversible metonymies:

(42) a. POSSESSOR FOR POSSESSED: *That's me.* for 'my bus'
b. POSSESSED FOR POSSESSOR: *He married money.* for 'person with money'

There is, however, a clear preference for choosing the possessor as the vehicle and the possessed object as the target. This is also reflected in the use of anaphoric pronouns, which, if they can be used at all, refer to the human vehicle, as in *Bill is in the Guinness Book of Records; he is on page 7*, and not to the target, as in #*Bill is in the Guinness Book of Records; it is on page 7*. Conversely, anaphoric pronouns in POSSESSED FOR POSSESSOR metonymies refer to the human target, as in *Many big names have turned up and he was one of them*, and not to the vehicle, as in #*Many big names have turned up and it was one of them*.

(vii) *Containment ICM*: The image-schematic situation of containment is so basic that it deserves to be treated as an ICM of its own among spatial relations. As a rule, we are more interested in the contents of a container than in the mere container so that we commonly find metonymies which target the contents via the container, as in (43a), rather than the reverse metonymic relationship, as in (43b).

(43) a. CONTAINER FOR CONTENTS: *The bottle is sour.* for 'milk'
b. CONTENTS FOR CONTAINER: *The milk tipped over.* for 'the milk container' (Norrick 1981: 58)

(viii) *Location ICMs*: Places are often associated with people living there,[4] well-known institutions located there, events which occur or occurred there, and goods produced or shipped from there (see (40)). Hence, we find the following metonymies:

(44) a. PLACE FOR INHABITANTS: *The whole town showed up.* for 'the people'

b. INHABITANTS FOR PLACE: *The French hosted the World Cup Soccer Games.* for 'France'

(45) a. PLACE FOR INSTITUTION: *Oxford won't publish the book.* for 'Oxford University Press'

b. INSTITUTION FOR PLACE: *I live close to the University.*

(46) a. PLACE FOR EVENT: *Waterloo* for 'battle fought at Waterloo'

b. EVENT FOR PLACE: *Battle* name of the village in East Sussex where the Battle of Hastings was fought

The relationship between places and people living there is often seen as a situation of containment. In this view, the metonymic relationship in (44) would be treated as a metaphorical extension of the container metonymy (43). The metonymic relationship in (46) comprises salient events which occurred at a particular place as well as activities typically performed at a given place. Relating places with what is typically done there is part of our cultural knowledge. It allows us to interpret the mention of the place in *I was behind the wheel all day* in the sense of the activity typically performed at that place, namely 'driving'. This subtype of metonymy may more adequately be described as PLACE FOR ACTIVITY PERFORMED AT THAT PLACE.

(ix) *Sign and Reference ICMs*: As shown in Section 2, Sign and Reference ICMs lead to metonymies cross-cutting ontological realms. In sign metonymies, a (word-)form stands for a conventionally associated concept; in reference metonymies, a sign, concept or (word-)form stands for the real thing. In each case, one part of an ICM stands for another part of the same ICM.

Sign metonymies may also apply to particular instances of the relationship between the form and content parts of a sign, as in:

(47) WORDS FOR THE CONCEPTS THEY EXPRESS: *a self-contradictory utterance*

In (47), we understand the word form *utterance* "as referring to the conceptual content expressed by the utterance" (Lakoff and Turner 1989: 108). This metonymy also accounts for the compound expression *four-letter word*, where the formal property of 'four letters' stands for the category of 'swear words',

and these types of words stand for the concept expressed by them. Since the expression *four-letter word* may also be used for swear words which have more or less than four letters such as *asshole* or *bastard*, metonymy (16b), MEMBER OF A CATEGORY FOR THE CATEGORY, also applies here.

(x) *Modification ICM*: This ICM mainly applies to variant forms of a sign. More specifically, we may distinguish between genuine cases of modification as in (48) and substitution as in (49), both of which seem to be unique to language:

(48) MODIFIED FORM FOR ORIGINAL FORM: *effing* for *fucking*
(49) SUBSTITUTE FORM FOR ORIGINAL FORM: Do you still love me? — Yes, I *do*.

4 Principles governing the selection of the preferred vehicle

The choice of vehicle and target in default cases of metonymy appears to be motivated or restrained by cognitive principles. The nature of such principles was pointed out by Langacker (1993: 30) in a very relevant observation on the function of metonymy:

> 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 intended target, and our natural inclination to think and talk explicitly about those entities that have the greatest cognitive salience for us.

The first factor relates to communicative aspects and will be described here in terms of communicative principles, the latter factor pertains to cognitive aspects and will be described in terms of cognitive principles. We will first look at the cognitive principles governing the selection of the preferred vehicle (Section 4.1) and then briefly examine the issue of communicative principles (Section 4.2). The principles themselves are assumed to have the status of preferential tendencies and will be stated in the form of X OVER Y.

4.1 Cognitive principles

Some of the cognitive principles of salience that have been identified by Langacker (1993) for reference points[5] and Cooper and Ross (1975) for

binomial expressions[6] are also relevant for default metonymies. They relate to three general determinants of conceptual organization, which tend to interact and overlap: human experience, perceptual selectivity, and cultural preference.

4.1.1 Human Experience

Our basic human experiences are derived from our bodily interaction with people and objects around us and our anthropocentric view of the world. This is reflected in the following principles of relative salience.

(i) *HUMAN OVER NON-HUMAN*: This principle accounts for the default cases of the production, control and possession metonymies, namely (38) PRODUCER FOR PRODUCT (*I've got a Ford*), (41a) CONTROLLER FOR CONTROLLED (*Schwartzkopf defeated Iraq*), and (42a) POSSESSOR FOR POSSESSED (*I have a flat tire*).

(ii) *SUBJECTIVE OVER OBJECTIVE*: This principle is based on our subjective view of the world and accounts for metonymy (30b) PERCEPTION FOR THING PERCEIVED, as in *What a beautiful sight* for 'thing seen'.

(iii) *CONCRETE OVER ABSTRACT*: Our basic human experience relates to concrete physical objects. Body parts make particularly 'good' objects, and we routinely access various abstract human domains by reference to our body. We thus speak of *having one's hands on something* for 'controlling something', *holding one's tongue* for 'stopping speaking', *heart* for 'kindness', *brain* for 'intellect', *a good ear* for 'good hearing', etc. Since concrete objects are visible, the principle also entails VISIBLE OVER INVISIBLE, which is reflected in metonymies such as *to save one's skin* for 'to save one's life'. Visibility also accounts for the default metonymy (43a) CONTAINER FOR CONTENTS, since containers are visible but things in the container are, as a rule, not. The CONCRETE OVER ABSTRACT principle also accounts for the metonymies (1) FORM FOR CONCEPT and (47) WORDS FOR THE CONCEPTS THEY EXPRESS, where the concrete visual or acoustic shape of a sign stands for its concept.

(iv) *INTERACTIONAL OVER NON-INTERACTIONAL*: Entities we interact with form good reference points. We often interact with parts of a whole so that this principle provides a default motivation for PART FOR WHOLE metonymies. For example, the part we interact with most in driving is the steering wheel so that we speak of *sitting behind the wheel* for 'driving'. We mainly use our hands in interacting with the world and hence speak of *hand-on demonstration*, we use our fingers in typing on the computer keyboard and thus speak of *having the world at our fingertips* when we log into the Internet. Our interaction with things is also closely related to their function.

(v) *FUNCTIONAL OVER NON-FUNCTIONAL*: As shown by Tversky and Hemenway (1984), we attach particular salience to functional parts such as the engine and the wheels. We therefore speak of a *motorway* and a *24-wheeler*. Parts that have no important function in driving such as the doors, the windshield wipers, or the fenders are, of course, highly unlikely to be selected as metonymic reference points to stand for the car.

4.1.2 Perceptual selectivity

A number of cognitive principles are relatable to perceptual salience. The foci of perceptual selectivity can be stated in the following principles of cognitive preference.

(i) *IMMEDIATE OVER NON-IMMEDIATE*: This cognitive principle accounts for selecting stimuli in our spatial, temporal, and causal immediacy. The metonymy in *I'll answer the phone* for 'I'll answer the person speaking at the other end of the line' is motivated by spatial immediacy. Metonymies (13) PRESENT FOR HABITUAL, as in *I always take the 9 o'clock train*, and (14) PRESENT FOR FUTURE, as in *I am off* for 'I will be off', are motivated by temporal immediacy. Metonymy (33) EMOTION FOR CAUSE OF EMOTION, as in *She is my joy* for 'she makes me feel happy', is motivated by the immediacy of the effect. The immediacy principle also accounts for many emotion metonymies in which physiological and behavioral responses produced by emotions are used to stand for the emotions themselves, as in *He got cold feet* for 'he became frightened' (see Kövecses 1990).

(ii) *OCCURRENT OVER NON-OCCURRENT*: This principle reflects our preferential concern with real, factual, and occurrent experiences. It accounts for metonymy (15a) ACTUAL FOR POTENTIAL in expressions such as *He is an angry person* or *This is a fast car*.

(iii) *MORE OVER LESS*: This principle accounts for the naturalness of using expressions denoting the upper, but not the lower, end of a scale for the whole scale, as in *How tall are you?*, where *tall* refers to any size. In the social and political domains, size is related to power and dominance, which may be seen as metaphorical sizes.

(iv) *DOMINANT OVER LESS DOMINANT*: This principle explains the metonymic use of the biggest and most powerful country or part of a country for a larger geographical unit as in (9b) *England* for 'Great Britain', *Holland* for 'the Netherlands', and *Russia* for the former 'Soviet Union'. This principle probably also accounts for the use of masculine forms in a generic sense, as in *mankind, postman* or *you guys*.

(v) *GOOD GESTALT OVER POOR GESTALT*: A powerful perceptual principle is our tendency to perceive gestalts as a whole rather than separate parts. This principle accounts for the wide-spread use of humans and whole objects when in fact an "active-zone" part is meant, as in *The car needs washing* for 'body of the car'. An essential requirement of any gestalt is that it has clearly delineated boundaries; hence the gestalt principle further relates to the following two principles.

(vi) *BOUNDED OVER UNBOUNDED*: The metonymic shift (11a) OBJECT FOR MATERIAL CONSTITUTING THE OBJECT allows us to construe a bounded thing as unbounded, as in *We had chicken today*. Its reverse metonymy (11b) MATERIAL CONSTITUTING AN OBJECT FOR THE OBJECT, as in *I sent you an e-mail*, is much less productive.

(vii) *SPECIFIC OVER GENERIC*: Specific and definite instances form better gestalts than general or unspecific entities. This principle underlies metonymy (17b) SPECIFIC FOR GENERIC and its subtypes. At a purely conceptual level, this principle accounts for people's tendency to generalize. For example, O.J. Simpson's verdict of 'not guilty' was taken by many Americans as a verdict for all black people.

4.1.3 Cultural preferences

Lakoff's work on metonymic models has shown that some members of a category are more salient than others with respect to certain dimensions. These dimensions are more or less strongly determined within a given culture.

(i) *STEREOTYPICAL OVER NON-STEREOTYPICAL*: Stereotypes probably provide the best cases of culture-bound concepts. We already came across the impact of stereotypes on metonymy in connection with categories such as 'housewife' and colloquial tautologies as in *Boys will be boys*.

(ii) *IDEAL OVER NON-IDEAL*: Ideals are social constructs within a culture and defined with respect to desirability, such as 'ideal love' (see Kövecses 1988); others are represented by a paragon like Babe Ruth for 'ideal baseball players' (Lakoff 1987). Also, negative categories may have ideal examples that can stand for the whole category, such as *Judas*, who is a betrayer par excellence in our culture and stands for 'betrayal' in general.

(iii) *TYPICAL OVER NON-TYPICAL*: Typical members of a category are often picked out when a category as a whole is described. For example, one may refer to the symptoms of *sneezing* and *coughing* in talking about a cold as in *You've got a bad cough*.

(iv) *CENTRAL OVER PERIPHERAL*: The cultural impact of centrality is nicely illustrated in Feyaerts' (1999) study of the conceptualization of stupidity in German. Expressions such as *You are not from here, are you?* demonstrate that people who are considered stupid are seen as living on the periphery of one's culture.

(v) *INITIAL OR FINAL OVER MIDDLE*: In our conception of events, an initial or final phase may be seen as being more important than the central phase. *To pull the trigger* for 'to shoot' focuses on an event's initial phase, *to sign a contract* for 'to make a contract' focuses on an event's final phase. The etymologies of *creed* and *mass* provide nice historical illustrations of the two aspects of this principle: *creed* derives from the first word of the Apostles' Creed, *Credo in unum Deum* 'I believe in one God', while *mass* for 'service' goes back to a formula said at the end of medieval church services, *Ite, missa est (contio)* 'go now, the meeting is dismissed' (Ullmann 1972: 219).

(vi) *BASIC OVER NON-BASIC*: This principle applies to simple and well-known 'ground' routines as in Lakoff's (1987: 88f) generators and submodels and in our preference for basic level categories. The use of the basic number *hundred* in *I've told you a hundred times* for 'several times' exemplifies this principle.

(vii) *IMPORTANT OVER LESS IMPORTANT*: This principle accounts for the use of *stage* for 'theater' as the most important part of the Theater ICM, the expression *speaking a language* for 'knowing a language', or the identification of a capital city with a country.

(viii) *COMMON OVER LESS COMMON* and

(ix) *RARE OVER LESS RARE*: Common members of a category are culturally given reference points and may be used metonymically, like *aspirin* for any pain-relieving tablet, while rare members stand out because of their uniqueness, as in Lakoff's (1987) example of a DC-10 crash, which people generalized to the extent that they refused to fly in any DC-10.

It is, without doubt, possible to identify more such cognitive principles, which, however, partly overlap with the ones discussed above. Among these we would probably have to list UNEXPECTED OVER EXPECTED, NEW OVER OLD, and TRADITIONAL OVER NON-TRADITIONAL.

4.2 Communicative principles

At least two principles seem to contribute to determining the default selection of a metonymic vehicle: the principle of clarity and the principle of relevance.

4.2.1 The principle of clarity

The communicative principle that ensures maximal ease of accessing the intended target via a metonymic vehicle may be stated in preferential terms as *CLEAR OVER OBSCURE*. This principle is, of course, reminiscent of Grice's (1975) maxim of manner, which, amongst other things, requires the speaker to avoid obscurity. It might be assumed that clarity in communication is best guaranteed by use of literal speech. Instances of metonymy which have a high degree of cognitive motivation, however, do not seem to require any more effort in directing the addressee's attention toward the intended target. Especially active-zone metonymies are highly motivated by the WHOLE FOR PART metonymy and, hence, are understood clearly and effortlessly. In Langacker's example *The dog bit the cat*, we effortlessly supply 'the dog's teeth' as the intended target. Here, the metonymic mode of expression is clearer and more "accurate" than the literal one, **The dog's teeth bit the cat*. In a vague expression such as *They spent the night together*, however, the addressee cannot clearly access the intended target and so communicative success is not guaranteed.

4.2.2 The principle of relevance

Sperber and Wilson's (1995: 158) principle of relevance, according to which "every act of ostensive communication communicates a presumption of its own optimal relevance", also applies to the use and interpretation of metonymy. As a communicative principle of preference, it may be stated as *RELEVANT OVER IRRELEVANT*. As a rule, a cognitively salient vehicle is also relevant to the situation at hand. It is only when the principle of relevance is in conflict with one or more of the cognitive principles that its impact comes to the fore. This is the case with in-group talks by nurses about their patients or waitresses about their customers. Thus, the much discussed metonymic example of *The ham sandwich is waiting for his check* in reference to a customer is well-motivated by the principle of relevance since, to the waitress, the food served provides the best reference point for identifying a customer in the Restaurant ICM.

4.3 Competing motivations

In light of the previous sections, we can reasonably suggest that the more cognitive principles apply, the greater the cognitive motivation of a metonymy.

For example, the metonymy ARTIST FOR HIS WORK, as in *We are reading Shakespeare* for 'Shakespeare's plays', is motivated by a bundle of cognitive principles: HUMAN OVER NON-HUMAN, CONCRETE OVER ABSTRACT, and GOOD GESTALT OVER POOR GESTALT. Most instances of metonymy, however, are not 'fully' motivated; rather, we have a continuum of motivation ranging from fully motivated default metonymies to weakly or unmotivated non-default metonymies.

Consider again Lakoff and Johnson's example *The buses are on strike* for 'the bus-drivers are on strike'. Since passengers interact with the buses and buses are more relevant to them than their drivers, the metonymy is motivated by the cognitive principle INTERACTIONAL OVER NON-INTERACTIONAL and the communicative principle RELEVANT OVER IRRELEVANT, but it is inconsistent with the cognitive principle HUMAN OVER NON-HUMAN. The metonymy in *I'll answer the phone* is consistent with the principle IMMEDIATE OVER NON-IMMEDIATE, but is in conflict with the principle HUMAN OVER NON-HUMAN. The metonymic expression *paper* for 'essay on a subject' is motivated by the principle CONCRETE OVER ABSTRACT, in particular, VISIBLE OVER INVISIBLE, but, since *paper* is prototypically a mass noun, the principle BOUNDED OVER BON-BOUNDED is reversed. In all these cases, conflicting motivations decrease the naturalness of the overall motivation of the metonymy.

5 Overriding factors

The use of metonymy may also be motivated by a speaker's expressive needs or a given social situation. A speaker may use metonymy in order to achieve a rhetorical or social effect. These factors may override one or more of the above principles governing the selection of the preferred, or default, metonymic vehicle. Since these principles are overridden deliberately, the resulting non-default metonymy is usually felt to be figurative.

5.1 Rhetorical effects

Along with other figurative modes of thought, metonymy is commonly used to produce rhetorical effects as in humor, jargon, literature, persuasion, slang, poetry and the like. The rhetorical effects tend to derive from violations of default cognitive and communicative principles. For example, the aesthetic effect of the metonymies in *The pen is mightier than the sword* derives from the deliberate reversal of the cognitive principle HUMAN OVER NON-HUMAN.

Shakespeare's wording *Let pride marry her* and the journalist's description *Many American lives were lost* for 'many Americans died' both violate the principle of CONCRETE OVER ABSTRACT.

5.2 Social-communicative effects

Social considerations may have a considerable impact on a speaker's choice of language in a given communicative situation. This particularly applies to face-threatening situations, which may be alleviated by metonymy-based euphemisms. For example, the euphemistic expressions *to go to the bathroom* and *to wash one's hands* (for 'to urinate/defecate') describe activities that only tangentially relate to the central and relevant event, hence they violate the principles CENTRAL OVER PERIPHERAL, RELEVANT OVER IRRELEVANT as well as CLEAR OVER OBSCURE. The euphemistic expressions may become so entrenched that they are no longer felt to be metonymic. Thus, *to go to the bathroom* is no longer associated with its spatial meaning 'to transport oneself to the bathroom', but evokes the target sense directly in expressions such as *The dog went to the bathroom on the living room rug*.[7] Metonymic expressions which are no longer felt to mystify a taboo topic tend to be replaced by new non-default metonymies. This happened to the originally euphemistic word *toilet,* which was replaced by *bathroom* and *restroom*, which in their turn have been supplanted by expressions such as *facilities* and *comfort station*.

Violation of the clarity principle also abounds in jargon. The official term used in British English for 'dismissal from a job' is *redundancy*, which refers to the cause or precondition of laying off workers or employees. The metonymy deliberately reverses the cognitive principle CENTRAL OVER PERIPHERAL and, since the target is not clearly identifiable, also violates the communicative principle CLEAR OVER OBSCURE. The clarity principle is also often violated in politically correct expressions such as *equal opportunity employer*.

These types of metonymy have traditionally been studied in rhetoric and literary criticism. In the cognitivist view presented here they now appear as non-default cases of metonymy, in which cognitive and/or communicative principles are deliberately overridden. Since the primary goal of this paper is to isolate the principles which determine default cases, the issue of non-default metonymies shall not be explored any further.

6 Conclusion

We have attempted to offer a relatively comprehensive and integrated theoretical framework of metonymy from a cognitivist point of view. The paper argues that metonymy is a cognitive process which operates within a single idealized cognitive model. Since ICMs may cross-cut ontological realms, we may also expect to find metonymy-producing relationships in and cross-cutting the three ontological realms of concepts, forms and things/events. We have been able to identify eight ICMs which give rise to 'ontological metonymies'.

The metonymy-producing relationships were subsumed under two general conceptual configurations: whole ICM and its part(s) and parts of an ICM. The former configuration typically gives rise to metonymies involving things, the latter primarily applies to metonymies involving predications. A small number of conceptual relationships only admit metonymization in one direction; the majority of metonymy-producing relationships, however, lead to reversible metonymies. Generally, however, one of these metonymic construals is conceptually preferred.

A number of cognitive and communicative principles govern the default selection of the preferred metonymic vehicle. The cognitive principles pertain to the areas of human experience, perceptual selectivity and cultural preferences. The communicative principles include those of clarity and relevance.

These cognitive and communicative principles may be overridden for expressive or social reasons. Non-default metonymies, which arise through such overriding factors, violate one or more of the default cognitive and communicative principles, in particular the principle CLEAR OVER OBSCURE.

We do not claim that we have carried out this project fully. On the contrary, what we have presented here are just the first steps towards of a theory of metonymy. We are certain that there are scholars who do not agree with us in matters of detail or even with respect to our general claims.

Notes

References

Blank, Andreas

1999 Co-presence and succession: A cognitive typology of metonymy. In K.-U. Panther, G. Radden (eds.), *Metonymy in Language and Thought*. Amsterdam and Philadelphia: Benjamins, 169-191.

Cooper, William E., John Robert Ross

1975 World order. *Papers from the Parasession on Functionalism,* University of Chicago: Chicago Linguistics Society, 63-111.

Croft, William

1993 The role of domains in the interpretation of metaphors and metonymies. *Cognitive Linguistics* 4: 335-370.

Feyaerts, Kurt

1999 Metonymic hierarchies: The conceptualization of stupidity in German idiomatic expressions. In K.-U. Panther, G. Radden (eds.), *Metonymy in Language and Thought*. Amsterdam and Philadelphia: Benjamins, 309-332.

Frawley, William

1992 *Linguistic Semantics*. Hillsdale, NJ: Lawrence Erlbaum.

Gibbs, Raymond W., Jr.

1993 Processes and products in making sense of tropes. In A. Ortony (ed.), *Metaphor and Thought*. Cambridge: Cambridge University Press (2nd ed.), 252-276.

1994 *The Poetics of Mind: Figurative Thought, Language and Understanding*. Cambridge: Cambridge University Press.

Grice, H. Paul

1975 Logic and conversation. In P. Cole, J.L. Morgan (eds.), *Syntax and Semantics. Vol. 3: Speech Acts*. New York: Academic Press, 41-58.

Koch, Peter

1999 Frame and contiguity: On the cognitive bases of

metonymy and certain types of word formation. In K.-U. Panther, G. Radden (eds.), *Metonymy in Language and Thought*. Amsterdam and Philadelphia: Benjamins, 139-167.

Kövecses, Zoltán

1988 *The Language of Love*. Lewisburgh: Associated University Press.

1990 *Emotion Concepts*. New York: Springer-Verlag.

Lakoff, George

1987 *Women, Fire and Dangerous Things: What Categories Reveal about the Mind*. Chicago: The University of Chicago Press.

Lakoff, George, Mark Johnson

1980 *Metaphors We Live By*. Chicago: The University of Chicago Press.

Lakoff, George, Mark Turner

1989 *More than Cool Reason: A Field Guide to Poetic Metaphor*. Chicago: The University of Chicago Press.

Langacker, Ronald W.

1991 *Foundations of Cognitive Grammar. Vol. II: Descriptive Application*. Stanford, CA: Stanford University Press.

1993 Reference-point constructions. *Cognitive Linguistics* 4: 1-38.

Morgan, Jerry L.

1978 Two types of convention in indirect speech acts. In P. Cole (ed.), *Syntax and Semantics. Vol. 9: Pragmatics*. San Diego: Academic Press, 261-280.

Norrick, Neal R.

1981 *Semiotic Principles in Semantic Theory*. Amsterdam and Philadelphia: Benjamins.

Norvig, Peter, George Lakoff

1987 Taking: a study in lexical network theory. *Proceedings of the Thirteenth Annual Meeting of the Berkeley Linguistics Society*. Berkeley, CA: Berkeley Linguistics Society, 195-206.

Ogden, Charles A., Ivor A. Richards

1923 *The Meaning of Meaning: A Study on the Influence of Language upon Thought and of the Science of Symbolism*. London: Routledge and Kegan Paul.

Panther, Klaus-Uwe, Linda Thornburg

1999 The Potentiality for Actuality metonymy in English and Hungarian. In K.-U. Panther, G. Radden (eds.), *Metonymy in Language and Thought*. Amsterdam and Philadelphia: Benjamins, 333-357.

Seto, Ken-ichi

1999 Distinguishing metonymy from synecdoche. In K.-U. Panther, G. Radden (eds.), *Metonymy in Language and Thought*. Amsterdam and Philadelphia: Benjamins, 91-120.

Sperber, Dan, Deirdre Wilson

1995 *Relevance: Communication and Cognition* (2nd ed.). Oxford: Basil Blackwell.

Taylor, John R.

1995 *Linguistic Categorization: Prototypes in Linguistic Theory*. Oxford: Clarendon Press (2nd ed.).

Thornburg, Linda, Klaus-Uwe Panther

1997 Speech act metonymies. In W.-A. Liebert et al. (eds.), *Discourse and Perspective in Cognitive Linguistics.* Amsterdam and Philadelphia: Benjamins, 205-219.

Tversky, Barbara, Kathleen Hemenway

1984 Objects, parts and categories. *Journal of Experimental Psychology* 113: 169-193.

Tylor, Stephen A.

1978 *The Said and the Unsaid: Mind, Meaning and Culture*. New York: Academic Press.

Ullmann, Stephen

1972 *Semantics: An Introduction to the Science of Meaning*. Oxford: Blackwell.

Warren, Beatrice

1999 Aspects of referential metonymy. In K.-U. Panther, G. Radden (eds.), *Metonymy in Language and Thought*. Amsterdam and Philadelphia: Benjamins, 121-135.

Webster's Third New International Dictionary of the English Language

1971 Edited by Philip B. Gove. Chicago et al.: Merriam Co.

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1 Langacker's notion of reference point applies to many other phenomena in language structure, in particular possessive constructions. The view of metonymy as a reference-point phenomenon is, however, not unproblematic. The process of first making mental contact to a reference point before accessing the target should take longer than that of accessing a conceptual entity directly. This, however, has not been confirmed experimentally in terms of the processing time needed to understand metonymy (Gibbs 1993).

2 See the discussion of the notion of contiguity in Koch (1999: 144-149). The notion of contiguity is also present in cognitive definitions as in Croft's (1993: 347) definition of metonymy as "a shift of a word meaning from the entity it stands for to a 'contiguous' entity".

3 Lakoff and Turner analyze proverbs as instances of the metaphor GENERIC IS SPECIFIC. Since both the specific and the generic levels belong to the same ICM, however, we prefer to analyze them as instances of the metonymy SPECIFIC FOR GENERIC.

4 Objects and animals may, of course, also be associated with a place. A nice example of metonymic association is the proper name *Canary Islands*, which goes back to the name *Canaria* given to it by the Romans on account of the many dogs seen there and which later on provided the name for the bird *canary*, which the Spanish found on the islands.

5 Langacker (1993: 30): "Other things being equal, various principles of relative salience generally hold: human > non-human; whole > part; concrete > abstract; visible > non-visible; etc."

6 The following semantic constraints identified by Cooper and Ross (1975) correspond to the cognitive principles as used here: *Here* and *Now* correspond to IMMEDIATE OVER NON-IMMEDIATE, *Singular* corresponds to SPECIFIC OVER GENERIC, *Animate* and *Agentive* correspond to HUMAN OVER NON-HUMAN, and *Count* corresponds to BOUNDED OVER UNBOUNDED. Possibly also the remaining semantic constraints are relevant for metonymy.

7 Cf. Morgan (1978: 263), who analyzes this example, which goes back to Robin Lakoff, as conventionalized conversational implicature.