Metonymies in Textbooks Intended for Teaching German for Specific Purpose at the Faculty of Food Technology

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Abstract

Traditional figures of speech (metaphors, metonymies, synecdoche) play an important role in everyday language. Moreover, they are used when discussing complex scientific, political, and social issues in the entire world. The aim of this paper is to determine if metonymies play an important role in the area of food technology too, i.e. if they are significantly represented in the textbooks intended for teaching German for specific purposes at the Faculty of food technology. By classifying metonymies, light will be shed on the most prevailing types used in three German textbooks. Even though metonymies are commonly used to produce rhetorical effects such as in humour, jargon, literature, persuasion, this paper will determine if they can be found in the scientific field of food technology.

Keywords: Figures of speech, Metonymy, Metaphor, Synecdoche

1. Introduction

Traditional figures of speech (metaphor, metonymy, synecdoche) have been used as more or less ornamental devices in rhetorical styles. Up until the publication of three very important volumes dealing with the metaphor-metonymy interface (Panther and Radden, 1999; Barcelona, 2000 and Dirven and Pörings, 2003 in Kučanda, 2004), metonymy lagged behind metaphor. It was considered less interesting because it does not discover new relations but arises between words already related to each other (Ullmann, 1962). According to Lakoff and Johnson (1980:39) "metonymy is more obvious and less creative than metaphor – hence presumably less worthy of the researcher's attention." This article, however, focuses on metonymy and presents this renewed interest in metonymy with the attempt to determine if metonymies play an important role in the field of food technology.

2. Metonymy

According to Webster's Unabridged Dictionary of the English Language (1996) metonymy can be defined as: "The use of the name of one object or concept for that of another to which it is related or of which it is a part, as *count heads* for *count people*." According to Ungerer and Schmid (1996:115) "metonymy involves a relation of contiguity (nearness or neighbourhood) between what is denoted by the literal meaning of a word and its figurative counterpart", whereas Radden and Kӧvecses (1999:21) see metonymy as "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."

The use of metonymy is not only limited to rhetorical style. Moreover, the reason for the speaker's motivation to use metonymy may arise from a given social situation and it usually involves violating the communicative principle *clear over obscure*. Social factors in a communicative situation may require speakers to override some cognitive or communicative principles, which can be seen in some metonymy-based euphemisms, in which considerations involving the hearer's face prevent the speaker from using a clear expression (i.e. the British English expression *redundancies for dismissals*, where the euphemistic word redundancy refers to a precondition that may lead to a worker's dismissal). Since the cognitive and/or communicative principles are overridden deliberately, the resulting metonymy is usually felt to be figurative, i.e. non-default.

2.1 On Metonymy, Metaphor and Synecdoche

Main differences between metaphors and metonymies are due to the mappings in one or more conceptual domains. The mapping in metaphors is usually based on similarity, i.e. we talk about the selective mapping of a part of one structure from one conceptual domain or idealized cognitive model (ICM) onto the corresponding structure in the other, hierarchically equal, conceptual domain or other ICM (Brdar & Brdar-Szabo, 2001). In the sentence *I felt right then and there I had met my Waterloo* the word is about a defeat of a boxer, which is compared to Napoleon's defeat at a battle of Waterloo. In both domains we have two competitors in a conflict, where one of them wins and the other one is being defeated. The selection of mapping is evident in that the conflict in the source domain is war, while the

conflict in the target domain is a sports competition. There are judges in a sports competition, whereas there are no judges in war. Unlike in metaphors, metonymic mapping takes place inside one conceptual domain, where one part of the structure mostly stands for the whole structure or vice versa, or one part of the structure can even stand in the place of some other part, when we can talk about subdomains inside of the conceptual matrix domain. This conceptual process is based on contiguity or neighbourhood. In the sentence *Beijing was outraged, and it looked like Washington had done it all on purpose* the word is about metonymic mapping where the whole stands for one part, i.e. the capitals of China and the USA are used to refer to the institution of political government in the broadest sense.

According to Warren (1999:131) "the most important difference between metaphor and metonymy lies in the fact that metaphors often involve hypothetical thinking." The sentence *Information about the matter leaked from the White House* illustrates that the figure of speech in question is a metaphor, because we see information as if it were a fluid seeping through a container supposed to hold it (the White House).

As far as synecdoche is concerned, Seto (1999:92) defines it "as a C(ategory)-related transfer", whereas "metonymy is an E(ntity) related transfer". The same author suggests that in order to distinguish metonymy from synecdoche, we have to distinguish between the terms "whole" and "part" and that is why the terms taxonomy and partonomy are used. Taxonomy is defined as a "kind of relation" (e.g. *a fir is a kind of tree*), whereas partonomy is a "part of relation" (e.g. *an arm is a part of the body*). Taxonomy is the relation between a more comprehensive and a less comprehensive category, while partonomy is the relation between an entity and its parts. Consequently, synecdoche should only take taxonomy, whereas partonomy is left to metonymy, because taxonomy is equivalent to the C-relation while partonomy is one part of the E-relation.

2.2 Types of Metonymy

The classification of metonymy depends not only on the kinds of entities (spatial, temporal, and abstract), but also on the types of reference, i.e., the way one entity refers to another (whole-part, container-content, process-result), as shown in Figure 1.
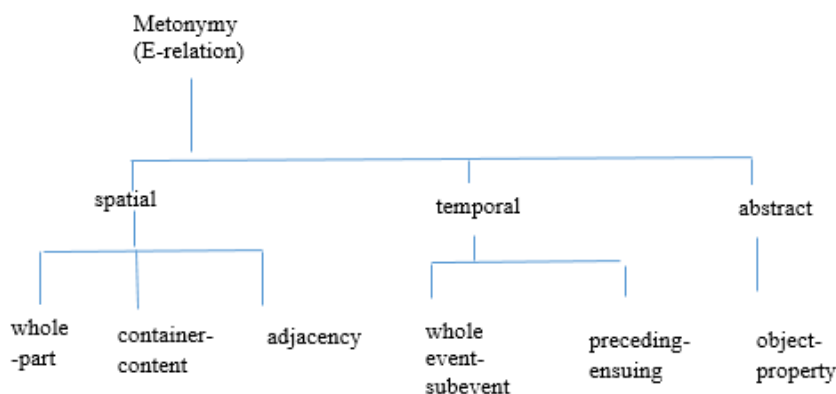

Figure 1. Types of metonymy (Seto, 1999:98)

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Spatial entities fall into the category of physical entities which have a spatial extension. The two major subtypes are as follows: the whole-part (e.g. *He picked up the telephone,* meaning the *receiver*) and the container-content type, where the container does not refer to the container plus the contents, but only to the contents, as far as the reference is concerned. (e.g. *The kettle is boiling*, where the kettle can refer to the water in it, or the content of the kettle.) However, the sentence *I had to go to the underground streets to find a vacant meter*, demonstrates that between the meter and the space there is neither a whole-part nor a container-contents relation. Vacant modifies the parking space next to the space adjacent to it. It is a relation characterized by the spatial contiguity between the two entities.

Temporal entities can be divided into two categories: One representing the relation between a whole event and a sub-event, as in the sentence *He is reading for the first degree* (reading is a part of studying, which is supposed to be part of being a university student, reading is therefore a sub-event for the whole event of "being an undergraduate student"), and the other showing the relationship between a preceding and an ensuing situation. The preceding-ensuing type of metonymy is processual (e.g. *I feel fiercely proud of my mother for standing up for her righteous neighbours*. The preceding event of standing up, which means "rising to an upright position" is often a prerequisite for doing some activity. Therefore, standing up metonymically implies that the mother did something positive for her righteous neighbours).

An abstract entity is a salient property of a thing. Although there are some properties perceptually so vivid that it may hardly seem right to call them abstract, they can become abstract in the sense that they are not bounded by either space or time, as illustrated by the sentence *She was considered a great beauty in her youth*. This is an example where an abstract noun stands for a concrete noun.

Ungerer and Schmid (1996:115) imply that "metonymy involves a relation of a word and its figurative counterpart", and based on that differentiate among several types of contiguity-relations in metonymies:

Part for Whole (*all hands on deck*),

Whole for Part (*to fill up the car*),

Container for Content (*I'll have a glass*),

Material for Object (*a glass, an iron*),

Producer for Product (*to buy a Ford*),

Place for Institution (*talks between Washington and Moscow*),

Place for Event (*Watergate changed our politics*),

Controlled for Controller (*the buses are on strike*),

Cause for Effect (*his native tongue is German*).

Besides the above mentioned types of metonymy, Lakoff and Johnson (1980) differentiate

among:

Object used for User (*The sax has the flu today*)

Institution for people responsible (*Exxon has raised its prices again*)

Feyaerts (1999) wrote about the metonymic concept of stupidity and differentiated among the contiguity relationships of Effect for Cause, as the following sentence illustrates:

Er kann nicht bis drei zählen (He cannot count to three)

Radden (2001) investigated the ways notions of articulation are metonymically used in different languages to stand for "speaking" and "language", and listed the following metonymy types in German:

Mouth for Speaking (*Einem das Wort im Munde umdrehen – to turn around the words in one's mouth*, meaning to distort the meaning of what someone said),

Tongue for Language (*Es liegt mir auf der Zunge – to lie on one's tongue*, meaning to be on the tip of one's tongue).

Radden and Kövecses (1999) talk about the interaction of ontological realms and metonymy. According to the authors, metonymy may occur wherever we have idealized cognitive models (ICM), and we have ICMs of everything that is conceptualized, which includes the conceptualization of things and events, word forms and meanings, and things and events in the real world. They refer to these types of conceptualizations as "ontological realms" and distinguish three ontological realms: the world of "concepts", the world of "forms" (of language) and the world of "things" and "events." The interrelation between entities of the same realm or from different ontological realms leads to various ICMs and possibilities for metonymy. However, ICMs that interrelate between entities of different ontological realms with the same semiotic unit and ICMs which interrelate between entities of different semiotic units within the same ontological realm or realms should be differentiated. The situation of interrelated ontological realms gives rise to two ICMs: "Sign ICM", which represents a pairing of a concept and a form, and "Reference ICM", which is a pairing of a thing or event and a sign, form, or concept. The situation of interrelated semiotic units involves concepts in conjunction with forms and these ICMs are referred to as "Concept ICMs." Consequently, we talk about "sign metonymy"[1], "reference metonymy"[2], and "concept metonymy"[3] (Figure 2).

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[1] Sign ICM unites a form and one or more concepts. The form stands for the concept it denotes. (e.g. dollar for money)

[2] The situation of reference involves signs, i.e. the form-concept units, which stand for a thing or event referred to. There are three possible types of reference ICMs: form-concept for thing/event (word *cow* for a real cow), concept for thing/event (concept "cow" for a real cow), and form for thing/event. (word-form *cow* for a real cow)

[3] Concept metonymies involve a shift from $Concept_A$ to $Concept_B$, which may be accompanied by a shift in form. (e.g. Form- $Concept_A$ for $Form_B$- $Concept_B$ as in the example bus-"bus" for *bus drivers*-"bus drivers"). Another type of concept metonymy is where the target concept is not linked to a name (e.g. Form- $Concept_A$ for $Concept_B$, as in the example *mother* – "mother" for "housewife-mother"). The next metonymic situation applies to polysemy, in which two senses of a word-form are relatable within the same ICM (e.g. $Form_A$- $Concept_A$ for $Form_A$- $Concept_B$ – *White House* - "place" for *White House* - "institution." Finally, we may have the situation where the form of an expression changes while the concept roughly remains the same (e.g. *UN* for *United Nations*).
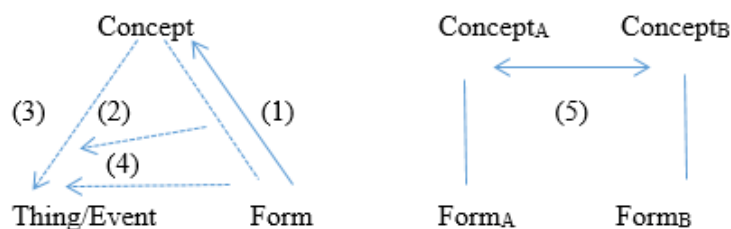
Figure 2. Sign, reference and concept metonymy (Kövecses & Radden, 1999)

Figure 2 illustrates the semiotic relationships which lead to the sign metonymy (1) and three types of reference metonymies (2) – (4) on one hand, and a type of concept metonymy on the other hand. The arrows indicate the direction of metonymic mapping. Warren (1999) discusses the type of metonymy called referential metonymy. For anything to be qualified as a referential metonymy, the following applies:

1) It should have a referent;

2) The intended referent is not explicitly mentioned but its retrieval depends on inference;

3) Inference is made possible because there is some connection between the mentioned referent (the trigger) and the implied referent (the target) deemed so well known that in the context in question the former will automatically suggest the latter.

In referential metonymy there is a referent which is mentioned and one which is implied, and an implicit link connecting these (e.g. wagtail, "something that has a wagging tail"). The implicit referent is the head and the referring item.

3. Methods and Results

The aim of this paper was to list and classify metonymies that appear in three textbooks intended for teaching German in the field of food technology. Two textbooks are used to teach German at the undergraduate study level, namely the first and the second year, and one is used at the graduate study level of food technology. The topics covered in the textbooks are those from the area of ecology, chemistry, and nutrition. Since metonymies are said to be mostly used to produce rhetorical effects, the following part of this paper will provide information on the use of metonymies in the scientific area of food technology.

In the following example the contiguity relation in question is that of Whole for Part, where the concept of chemistry covers the substances, chemists, and others involved in the science of chemistry.

„...in der *Chemie,* die unsere Rohstoffbasis erweitert..."

'…in *chemistry*, which extends our raw material base...'

The next example illustrates the Whole for Part relation too, where soda and water glass refer to all the substances contained in them:

„…*Soda und Wasserglas* lösen Eiweißstoffe…"

'…*Soda and water glass* dissolve proteins…'

In the following sentences the contiguity relation in question is that of Whole for Part, subtype Place for Institution, for the people who are part of that institution, state or country.

„Alle *Staaten* sollten sich um ein verträgliches Konsumverhalten bemühen..."

'All *states* should try to find tolerable consumer behaviour...'

„Die *Entwicklungsländer* sollen versuchen beim Aufbau ihrer Wirtschaft ein verträgliches Konsumverhalten einzuführen...."

'The *developing countries* should try to establish compatible consumption behaviour in the construction of economy…'

„Die *Globalisierung* hat die Botschaften des Komerzzeitalters in die Welt geschickt…"

'*Globalization* has sent the messages of the consumer's era into the world...'

„Um der Umweltverträglichkeit willen müssen *Länder* Wege finden, ihre Wirtschaft anzukurbeln…"

'For the sake of the environment, the *countries* have to find ways to boost their economy…'

„Wenn in Japan die *Börse* kriselt, kriseln wir mit..."

'If in Japan the *stock market* is heading towards a crisis, we are heading there too...'

„Und das *Fernsehen* überträgt täglich, wie unsicher das Leben auf dem Planeten geworden ist..."

'And the *television* transmits daily how unsafe life on the planet has become...'

„Inzwischen bieten die ersten *Restaurants*, *Hotels* und *Kantinen* ihren Gästen eine gesunde Bioland-Alternative..."

'In the meantime, the *first restaurants, hotels, and canteens* offer their guests a healthy organic alternative...'

„Die modernen *Industriestaaten* nutzen und verändern ihre Landschaft sehr stark..."

'The *modern industrialised countries* use and change their landscape to a great extent...'

„...der *Arbeitskreis* wird sich mit biologischen Kriterien für die Gesunderhaltung des Menschen und seiner Lebensgrundlagen ausgerichteten Nahrungsproduktion und Ernährung befassen... "

'...the *working group* will deal with biological criteria for the health of humans and their livelihood directed food production and nutrition...'

„Die drei größten Erdölproduzenten der Welt sind die *USA*, *Venezuela* und *die Russia*…"

'The three largest petroleum producers in the world are the *USA, Venezuela and Russia*....'

In the following examples the name of the Institution stands for the Member of the Institution…

„Die *BASF* produziert chemische Grundstoffe, Düngemittel, Pflanzenschutzmittel…"

'*BASF* produces chemical raw materials, fertilizers, pesticides…'

„…das größte Wasserverbraucher ist die *Industrie*, insbesondere die chemische Industrie…"

'…the largest water consumer is the *industry*, especially chemical industry…'

„Die Aufgabe der *DSD (Duale System Deutschland)* ist die Erfassung und Wiederwerwetung…"

'The task of the *DSD (Dual System Deutschland)* is the assessment and reevaluation…'

„Die *Siemens, Daimlers und Krupps von heute wander aus…*"

'The *Siemens, Daimlers, and Krupps* of today are emigrating…'

„So demonstrierte *eine Studie des US-Energieministeriums…*"

'This is demonstrated by the study published by the *US Department of Energy…*'

„…das *Informationsdossier von EUFIC* … untersucht die verschiedenen Etappen dieses komplexen Systems…"

'…the *information dossier of EUFIC* … examines the various stages of this complex system…"

„Die Lebensmittelsicherheit ist, wie es die *Weltgesundheitsorganisation WHO* sehr treffend ausdrückte…"

'Food safety is, as the *World Health Organization (WHO)* expressed…'

„Das *HACCP (Hazard Analysis Critical Control Points)*-Verfahren konzentriert sich …"

'The *HAACP (Hazard Analysis Critical Control Points)* process is concentrated…'

„Die Lebensmittelindustrie hält sich darüber hinaus an die von der *Internationalen Standards Association (ISO)* veröffentlichten Qualitätskontrollstandars."

'The food industry also adheres to the quality control standards published by the *International Standards Association (ISO).*'

„…werden von der *US-Lebensmittelbehörde (FDA)* …autorisiert."

'…are authorized by the *US Food and Drug Administration*.'

„…ist ein gemeinsames Programm der UN-Organisationen für *Nahrung und Landwirtschaft (FAO) und Gesundheit (WHO)…*"

'…is the joint programme of the UN organisations for *Food and Agriculture (FAO) and*

Health (WHO)…'

„Die *Regierung* sollten mit allem Nachdruck für eine effiziente Produktion eintreten…"

'The *government* should be vigorous in its efforts to ensure efficient production…'

„*Regierung und Industrie* müssen gemeinsam umweltfreundliche und nachhaltige Wege zur Nutzung der Ressourcen sowie für die Produktion und den Verbrauch von Energie finden."

'*Government and industry* must jointly find environmentally friendly and sustainable ways of using resources and producing and consuming energy.'

„Die *Regierung* sollten im Zusammenarbeit mit der Industrie und anderen Institutionen erreichen..."

'The g*overnment* should cooperate with industry and other institutions...'

„Die *Gesellschaft* muss mit den steigenden Bergen von Abfallprodukten fertigwerden..."

'*Society* must be able to manage the rising mountains of waste products...'

„Die *Regierung* selbst sind oft grosse Konsumenten, und sie sollten in ihrer Einkaufspolitik wo immer möglich auch Rücksicht auf die Umweltverträglichkeit nehmen."

'The *government* itself is often a large consumer, and should, wherever possible, take account of environmental stability in its purchasing policy.'

„... nach Angaben des *Worldwatch Institutes*…"

'…according to the data published by the *Worldwatch institute*…'

In the next example *chemical nose* stands for sensors used for the identification of chemical compounds.

„Die *Spürnase* analysiert und identifiziert flüchtige chemische Substanzen in winzigen Konzentrationen."
'The *chemical nose* analyses and identifies volatile chemical compounds in minute concentrations.'

Next examples show the relation Part for Whole where one person represents the whole group of people.

„Aus den Baumstämmen macht der *Mensch* Balken und Bretter..."

'A *person* makes boards and beams from the tree trunks...'

„...der deutsche *Normalverbraucher*, zu dem auch der Jugendliche zählt, isst wieder mehr Fleisch, mehr Backwaren, mehr Kartoffeln..."

'Average German consumer, which also includes teenagers, eats more meat, more pastry, and more potatoes...'

As the above mentioned examples show, 30 metonymies showing the contiguity relation of

Whole for Part, and only 20 metonymies showing the relation of Part for Whole have been found in three textbooks consisting of approximately twenty units.

Therefore, it can be concluded that in the scientific field of food technology the aim is to present facts and data objectively, and, consequently metonymies do not play an important role.

4. Conclusion

The aim of this paper was to list and determine the types of metonymies used in the three books intended for teaching German in the field of food technology. The analysis revealed that the textbooks are not rich in metonymies and that this figure of speech does not have a pivotal role in the books intended for teaching German for specific purposes. The prevailing type of metonymy found in these textbooks is the Whole for Part type, especially the subtype Place for Institution, followed by the Part for Whole type. Other types or subtypes have not been found in the textbooks.

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