

# Incompatibility: A No-Sense Relation?

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## Abstract

Incompatibility (or co-hyponymy) is the most general type of semantic relation between lexical items, the meaning of which entails exclusion. Such items fall under a superordinate term or concept and denote sets which have no members in common (e.g. *animal: dog-cat-mouse-lion-sheep*; example from Cruse 2004). Traditionally, these have been of interest to lexical semanticists for the description of the structure of the lexicon. However, incompatibility is not just a relation that signifies a difference of meaning.

This paper is a critical corpus-assisted re-evaluation of the phenomenon of incompatibility which argues that the relation in question sometimes also functions as a discourse marker. Incompatibles indicate recurrent intertextual patterns. This holds particularly true for socially or politically controversial lexical items such as *Flexibilität (flexibility)*, *Mobilität (mobility)* or *Globalisierung (globalisation)*. Corpus investigations of such words have revealed that among other semantically related terms, incompatibles have a crucial discourse focussing function.

For the German lexical item *Globalisierung*, I will show how its lexical usage can be studied through a corpus-driven analysis of corresponding incompatibles. Incompatible terms are not contingent co-words but often occur in close contextual proximity and participate in regular syntagmatic structures (e.g. *Globalisierung und Rationalisierung*; *Globalisierung und Modernisierung*; *Neoliberalismus, Globalisierung und Kapitalismus*). Hence, these are easily extracted by conducting a computational collocation analysis. Such significant collocates provide a good insight into the discursive and thematic contexts of the search word. Following Teubert (2004), I will demonstrate how the meaning of such lexical items is constituted in discourse and how the examination of these particular collocates reveals their sense-constructing function and their pragmatic-discursive force. I will provide a brief discussion of the methodology used for such analyses, and I will explain why the complex semantic-pragmatic and thematic-communicative patterns implied in sets of incompatibles should be given a stronger emphasis in lexicography.

## 1. Introduction

The relation of incompatibility is the most general type of semantic relation among lexical items, the meaning of which entails exclusion (e.g. Lyons 1977, Cruse 1986). According to the theoretical approach, lexical units exhibiting a specific sense hold a relation of incompatibility if they fall under a common single superordinate. Alternatively, following a construction-based approach, concepts that are denoted by lexemes or constructions enter a relation of incompatibility if they fall under a

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hyperonymous concept/notion. Hence, incompatibles are lexical items which denote classes that have no members in common. They refer to mutual exclusiveness within the same superordinate category such as the following three examples:

‘animal’: *dog – cat – mouse – lion – sheep* (example from Cruse 2004)  
‘fruit’: *banana – apple – pear – orange*  
‘economic values’: *mobility – flexibility – efficiency – adaptability – know-how*.

These are also called co-hyponyms or sister terms.

For a long time, a large number of structural semanticists shared the view that incompatibles are elements of lexical fields which function as structuring elements within the lexicon on a paradigmatic level (e.g. Lyons 1977). However, in more recent years, where new methods and linguistic approaches have been available, these sense-related items have been of interest to only a few scholars (e.g. Murphy 2003, Croft/Cruse 2004). Generally, the investigation of their syntagmatic behaviour and their contextual functions has attracted little attention from corpus linguists, cognitive semanticists and lexicographers. However, empirical studies reveal that this relation is far more than a relation that simply signifies a difference of meaning. Without following a specific semantic framework for sense relations, the stance that is taken in this study is that incompatibles of some particular words, often socially and politically controversial lexical items such as *Mobilität*, *Flexibilität* or *Globalisierung*, possess a discourse focussing function which has not yet been analysed critically within the context of sense relations.

## 2. Discourse from a Corpus Linguistics Perspective

Before the subject of incompatibles can be considered more closely, some preliminaries concerning the subject of discourse are required, since the term is highly ambiguous and the study of discourse has been diverse, with the various subfields demonstrating crucial differences in approach.<sup>2</sup> Here, discourse is not understood as spoken conversation. Rather the subject is approached from a socially oriented, but strictly corpus linguistic and textanalytical, perspective. Following Teubert (2004: 104) “all communication acts together constitute the discourse of a given discourse community.” A discourse is considered to be a social construct and even if the study of all extant language material is not possible, corpus linguistics can at least work with a sample of a discourse. A specific discourse is taken as a collection of texts, here written electronic data, which are collected for a specific linguistic purpose, which reflect spatial and temporal aspects, and which contain the same topic or thematic subject. Such a collection of language data is therefore textually interrelated and has implicit or explicit references (e.g. Busse/Teubert 1994, Teubert 1998, 2004). Each text sample is a contribution to a larger discourse where meaning is communicated through attitudes, or the cultural and social reflections of discourse participants.

The discourse is full of paraphrases of words and of comments concerning their meaning and the connotations that come with them. (Teubert, 2004: 106)

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<sup>2</sup> Compare various views on discourse in Wodak/Meyer (2001), or for a discussion within the German context see for example Busse/Hermanns/Teubert (1994) and Wengeler (2003).

Hence, compiled texts of this kind themselves constitute the discourse or at least cross-sections of it (e.g. Teubert 2004, 2005).

In this study, the German discourse of globalisation (Globalisierungsdiskurs) is the centre of attention, meaning that the lexeme *Globalisierung* itself becomes the object of investigation<sup>3</sup>, as its meaning is reflected through its discursive usage. Sinclair points out that:

Although concepts can be distinguished from words, they are closely related, if not systematically correlated. (Sinclair, 2004: 119)

With reference to the example of the discourse of flexibility, he further explains:

So it is relevant to examine the use of the words *flexible* and *flexibility* to see the textual reflection of the way the concept is being received and handled. (Sinclair, 2004: 119)

The same holds true for the discourse of globalisation. Previous studies by Teubert/Čermáková (2004) for English *globalisation/globalization*, and by Teubert (2002) and by Hermanns (2003) on the German equivalent *Globalisierung* have stressed the close correlation between the meaning of a lexical unit, the concept it designates and its discourse structures. Their investigations were based on the exploration of smaller and specific corpora. Results of an analysis of the lexical unit in a much larger corpus which concentrated on semantic shifts of *Globalisierung* after 2002, were explicated in Storjohann (2007 forthcoming). However, special attention was not paid to specific contextual relations (for instance paradigmatic sense relations) in any of these investigations.

As Fairclough (1995) points out “discourse is shaped in structures” and one essential element of such structures is vocabulary. In this paper, it is shown that a considerable value for capturing relevant semantic patterns can be derived solely from the investigation of the incompatibles of *Globalisierung* for. However, it must be pointed out that this study focuses on only one specific level of discursive analysis, which is the lexical-textual analysis. Within a textual framework the analysis of a discourse is more than just a pure lexical analysis of a search item. It has to integrate the investigation of different types of semantic relations. Therefore, two remarks are necessary here.

Firstly, it is not argued that incompatibles indicate the whole spectrum of a discourse, but the position adopted here posits that a thorough investigation of a discourse requires attention to different levels of textual organisation, not just on a paradigmatic level. The investigation of other textual structures needs to be taken into account. Other sense relations such as synonymy as well as different significant syntagmatic co-occurrences of *Globalisierung* uncover further semantic-pragmatic aspects. For instance, the investigation of verbs co-occurring with *Globalisierung* sheds valuable light on the speaker’s view on what can be done with globalisation and what globalisation itself does. Accompanying adjectives, on the other hand, often reveal ways of characterising the process of globalisation. The analysis of broader verbal co-text, where statistically less significant co-words become apparent, can also help to disclose how differently the concept of globalisation is perceived by the discourse community. And secondly, as Fairclough (1995) and Wodak (2001) point out, for a more complete approach to discourse, methods of textual analysis, as they are applied here, can also be combined with other analyses such as discourse practices

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<sup>3</sup> Teubert (2006: 6) refers to this as “Diskursobjekt”, see also Teubert (2005).

and socio-cultural practices. Fairclough refers to his approach as a “three-dimensional” methodology of Critical Discourse Analysis, of which the textual analysis is only one part.

Within the framework of this paper, all these factors cannot be accounted for. The following part should therefore be considered as an examination of one specific phenomenon which is positioned on one specific lexical-textual level within a broader investigation of the German discourse of globalisation.

### 3 Textual Analysis and Methodology

According to Teubert/Čermáková (2004: 156) “from a corpus linguistics perspective, the meaning of a unit of meaning is what we can glean from discourse” and meaning is “usage and paraphrase” (p. 127). The study of the usage of a lexical item implies the analysis of its contextual relations, among which there are also sense relations. Discursive structures are established when specific semantic relations occur regularly and systematically in the contextual usage of the item in question. The examination of lexical regularities of the search term *Globalisierung*, e.g. recurring lexical patterns and statistically significant co-occurrences, provides the textanalytic access to the discourse of ‘Globalisierung’.

Das Stadium der Etablierung neuer diskursiver Strukturen ist erreicht, wenn Serien diskursiver Ereignisse sich zu einer Regelmäßigkeit verdichtet haben. [...] Diskurse erweisen sich als geregelte und diskrete Serien von diskursiven Ereignissen, in deren Analyse es vor allem auf die Identifizierung von Regelmäßigkeiten ankommt. (Busse, 2003: 180f.)

Although sense relations are generally classified as paradigmatic relations, Justeson & Katz (1991), Jones (2002) and other recent works on specific sense relations (e.g. Murphy 2006) show that they are realised syntagmatically in their actual use. Their studies of antonyms demonstrate that they often co-occur in a sentence. Pursuing a construction-based approach, such insights led Murphy (2006) to the conclusion that antonyms constitute a particular type of construction. For incompatibles Cruse also pointed out that:

Incompatibility features as a typical syntagmatic relation [...]. To give one example, items in a coordinated list are typically incompatibles [...]. (Cruse, 1986: 94)

Empirical studies confirm this. Incompatible pairs, triples etc. systematically show syntagmatic realisations in context, and they are typically integrated into coordinated structures such as *Globalisierung und Rationalisierung*; *Globalisierung und Modernisierung*; *Neoliberalismus, Globalisierung, Kapitalismus*. The following two corpus citations illustrate such contexts:

- 1) Dieses Motto war dem Papst offenbar nicht ganz fremd. Johannes Paul II. wandte sich in seiner Predigt gegen kapitalistischen Neoliberalismus und eine rücksichtslose Globalisierung. Dies ordne den Menschen den "blinden Marktgesetzen" unter und mache die armen Länder der Dritten Welt immer ärmer, sagte der Papst. (die tageszeitung, 26.01.1998, S. 10)

- 2) Auch mit Blick auf die Wirtschafts- und Währungsunion findet eine wahre Kulturrevolution statt. Die Franzosen müssen dabei fast über Nacht mit vielen Traditionen brechen und auf manche Sicherheiten verzichten. Von einem zentralistischen Interventionsstaat wird ihr Land jäh zu einer dezentralen, liberalen Marktwirtschaft umgebaut. Dabei war den Franzosen bislang sowohl der politische als auch der wirtschaftliche Liberalismus eher fremd. Liberalisierung und Globalisierung, Deregulierung und Privatisierung gelten als Schimpfworte. (Die Zeit, 29.11.1996, Nr. 49, S. 1)

In analogy to Jones' (2002) lexico-syntactic templates of English antonyms, similar structures are present in the corpus for incompatible pairs in German. The most frequent coordinated frames are: *sowohl X als auch Y, X sowie Y, X oder Y, X aber auch Y, weder X noch Y*.<sup>4</sup>

The regular usage of incompatibles in such constructions has the advantage that the profile of this sense relation can be easily detected in electronic texts by advanced corpus tools. As incompatibles show regular co-occurrence in close proximity to each other, they can be examined through a straightforward corpus-driven procedure. This methodology allows for the search for patterns without prior expectation (e.g. Tognini-Bonelli 2001<sup>5</sup>). A systematic access to established, recurring and significant contextual patterns in electronic texts is provided by the results of a computerised collocation analysis. These results are then subject to further linguistic analysis and interpretation.

For the examination of *Globalisierung* the elexiko-corpus<sup>6</sup> was used, a monitor corpus of the Institut für Deutsche Sprache that exclusively comprises several newspapers and covers German (70 percent), Austrian German (20 percent) and Swiss German (10 percent) texts. Currently, it comprises 1500 million tokens of texts ranging from 1980 to 2006 of which the German discourse of globalisation comprises 27,462 texts containing the lexeme *Globalisierung*. It was assembled for the lexicographic investigation of lexical items of public discourse, the results of which are published in the online dictionary ELEXIKO ([www.elexiko.de](http://www.elexiko.de)). The corpus tool COSMAS II<sup>7</sup>, a statistical search and text analysis tool with a concordancing and collocation software package *Statistische Kollokationsanalyse und Clustering* (Belica 1995), is employed to process the language material. It performs fundamental operations such as the extraction of collocation profiles as well as the preparation of concordances and larger verbal contexts.

#### 4. Incompatibles of *Globalisierung*

The primary concern of the paper is to argue that the relation of incompatibility can sometimes function as a discourse marker. Discursive structures are inscribed or

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<sup>4</sup> Jones' term *coordinated antonymy* refers to a classification of discourse functions. In this paper, discourse and discourse functions are defined differently, following approaches of Discourse Analysis (e.g. by Busse/Teubert 1994).

<sup>5</sup> Following Tognini-Bonelli (2001) the corpus-driven methodology contrasts with a corpus-based approach where the corpus is simply used to find text samples that fit a linguistic hypothesis.

<sup>6</sup> For more information on the elexiko-corpus see also:

<http://hypermedia.ids-mannheim.de/elexiko/ModulElex/methelexKorp.html>

<sup>7</sup> COSMAS= Corpus Search, Management and Analysis System: <http://www.ids-mannheim.de/cosmas2/>

implicit in incompatibles. A closer contextual analysis of incompatibles can then make essential semantic parts of discourse become explicit. A selection of the most significant incompatibles of the search term *Globalisierung* and their underlying repeated textual patterns, as retrieved through the computational collocation analysis, is given below. They are listed in order of falling significance score (log-likelihood ratio).

<u>LLR</u>	<u>co-occurrences</u>	<u>syntagmatic patterns</u>
1197	<b>Deregulierung</b>	die Globalisierung [und] Deregulierung
1035	<b>Liberalisierung</b>	der Globalisierung [und] Liberalisierung
1015	<b>Internationalisierung</b>	Internationalisierung [und] Globalisierung
973	<b>Individualisierung</b>	Globalisierung [und] Individualisierung und
972	<b>Europäisierung</b>	Europäisierung [und] Globalisierung
672	<b>Neoliberalismus</b>	Neoliberalismus [und ...] Globalisierung
640	<b>Kapitalismus</b>	Kapitalismus [und die] Globalisierung
365	<b>Digitalisierung</b>	Globalisierung und Digitalisierung
343	<b>Gerechtigkeit</b>	die Globalisierung [der und] Gerechtigkeit
343	<b>Regionalisierung</b>	von Globalisierung und Regionalisierung
317	<b>Flexibilisierung</b>	der Globalisierung [und] Flexibilisierung
294	<b>Rationalisierung</b>	von Rationalisierung [und] Globalisierung
270	<b>Freihandel</b>	Freihandel [und] Globalisierung zum ...
230	<b>Demokratie</b>	Globalisierung [und] Demokratie
203	<b>Amerikanisierung</b>	Globalisierung und eine Amerikanisierung
190	<b>Modernisierung</b>	Globalisierung und Modernisierung -
173	<b>Demografie</b>	Globalisierung [und] Demografie
153	<b>Terror</b>	Globalisierung ... Terror -
153	<b>Technisierung</b>	Globalisierung [und] Technisierung
151	<b>Mobilität</b>	Globalisierung [und der die] Mobilität
142	<b>Privatisierung</b>	Globalisierung [und der] Privatisierung und
142	<b>Technologien</b>	Globalisierung und neue Technologien
134	<b>Lokalisierung</b>	Globalisierung und Lokalisierung
128	<b>Ökonomisierung</b>	Globalisierung und ... Ökonomisierung
128	<b>Identität</b>	die Globalisierung und ... Identität und
127	<b>Kommunikation</b>	Globalisierung von der und Kommunikation
125	<b>Fragmentierung</b>	Globalisierung [und der] Fragmentierung
120	<b>Umweltzerstörung</b>	Globalisierung und Umweltzerstörung
114	<b>Internet</b>	Globalisierung [und] Internet
112	<b>Fortschritt</b>	Globalisierung und technischer Fortschritt
106	<b>Fundamentalismus</b>	Globalisierung und Fundamentalismus ...
104	<b>Informationsrevolution</b>	Informationsrevolution und der
	Globalisierung	
102	<b>Ökologie</b>	Ökologie [und] Globalisierung
91	<b>Terrorismus</b>	die Globalisierung und des Terrorismus und
91	<b>Terror</b>	Globalisierung ist den Terror
80	<b>Sozialabbau</b>	Globalisierung [und] Sozialabbau
77	<b>Nachhaltigkeit</b>	Nachhaltigkeit und der Globalisierung
76	<b>Internationalität</b>	Internationalität [und] Globalisierung
76	<b>Virtualisierung</b>	Globalisierung [und] Virtualisierung
70	<b>Computerisierung</b>	Globalisierung und Computerisierung
69	<b>Internets</b>	des Internets und der Globalisierung

**Table 1:** Incompatible collocates of *Globalisierung* with a maximum number of 5 intervening words.

These conjoined terms not only designate typical associations but also reveal different topical aspects of the notion of globalisation within public discourse. As it is argued that incompatibles function as indicators or markers of discourse, for a detailed investigation of argumentative strategies and other discourse practices and in order to

gain more insight into the semantics of the discourse, a study of concordances and broader context is indispensable. The close study of contexts of the query word, together with their incompatible partners, enables a grouping of the sense related terms into different thematic fields, some of which overlap considerably, such as economic, social and political debates. They can, for example, be categorised semantically according to their correlated superordinate concepts (e.g. economic justification, key factors in political decisions, required social skills, tendencies or reasons for changing social reality etc.).

Generally, most of these incompatibles indicate that *Globalisierung* is part of public communication in various topics, most prominently within economic, social and political domains. The key concepts, which most related items point to, are economic reflections as expressed by *Deregulierung*, *Flexibilisierung*, *Fragmentierung*, *Freihandel*, *Internationalisierung*, *Liberalisierung*, *Mobilität*, *Ökonomisierung*, *Privatisierung*, *Rationalisierung*. They primarily refer to descriptions of general requirements for companies to compete in a worldwide market and in order to maintain their economic efficiency and productivity. Their contexts also reflect notions around processes and results of economic privatisation and regulations, and they also specify necessary skills for employees. Socio-political issues are reported in corpus texts where the instances of *Demografie*, *Demokratie*, *Gerechtigkeit*, *Kapitalismus*, *Modernisierung* *Neoliberalismus* occur. These express a more general characterisation of today's society, its changing welfare system and new social and political tendencies. Collocates which portray economic and socio-politic contexts have been well established within the discourse of globalisation since the beginning of the 1990s.

However, corpus data also discloses how the concept of globalisation is semantically flexible and able to adapt to new situations. After 1996, the process of semantic broadening is reverberated by various new collocates. Over the past few years other subjects which are also significantly present concern new political issues, technical and technological as well as cultural and ecological aspects.

The semantic grouping of *Computerisierung*, *Digitalisierung*, *Informationsrevolution*, *Internet*, *Kommunikation*, *Technisierung*, *Technologien*, and *Virtualisierung* is around the notion of communication and technology. These are made the subject of discussion in numerous texts. While some speakers consider the connection between globalisation, internet, computer technology and communication as a thread, because they often replace traditional skills, others find these concepts to be part of a modern reality where people need to adapt to new circumstances, as expressed in 3).

- 3) Elisabeth Bender, Sprecherin der Elterninitiative, betonte die Notwendigkeit, auf Verbesserungen zu drängen: "Es geht heute darum, den Grundbedarf abzudecken", sagte Bender, selbst Mutter von drei schulpflichtigen Kindern. Wenn in Zeiten der **Globalisierung** und vernetzten **Kommunikation** in Schulen mit veralteten Büchern und Materialien unterrichtet werde, müsse man sich nicht wundern, daß viele Schüler wenig motiviert seien. (Frankfurter Rundschau, 07.10.1998, S. 35, Protest mit 14300 Unterschriften)

Within this context, often positive evaluations of the discourse community are conveyed, since most of the concepts designated by these incompatibles are interpreted as technological advances that help to overcome distance and enable fast and unproblematic communication and exchange of information.

Another crucial question is raised in corpus texts where *Amerikanisierung*, *Europäisierung*, *Identität*, *Individualisierung* occur as incompatibles. The concept of globalisation is identified as a process of Americanisation or at least Europeanisation by some discourse participants. As a consequence, this development is interpreted as a levelling down of cultural diversity, the loss of individual or national identity and it results in cultural homogeneity, as shown in example 4).

- 4) Eine pauschale Ablehnung von Fremdwörtern sowie deutschtümelnder Purismus sei im Zeitalter der **Europäisierung** und **Globalisierung** wenig sinnvoll. Es gelte die Sprache als Kulturgut zu pflegen. Die Deutschen sollten stärker als bisher selber Fremdsprachen lernen. (Mannheimer Morgen, 17.03.2001, Thierse gegen Sprachgesetz)

After 2001, *Fundamentalismus*, *Terrorismus*, *Terror* have become new incompatible partners of *Globalisierung*. Their common contextual appearance is a direct result of newspaper reports on the events in New York, 11 September 2001 and a stronger journalistic emphasis on the subject of terrorism thereafter. Within a German political context, such debates went along with discussion about stricter measures of surveillance and the introduction of various surveillance systems. Simultaneously, reactions to such decisions were reported to show a growing awareness of the corresponding curtailing of personal rights (see the following citation).

- 5) Die Faszination der Freiheitsrechte sei verblaßt. Aus Angst vor **Globalisierung** und **Terrorismus** suchten die Menschen Sicherheit. Dies führe zu Verboten, deren Folge gravierende Einschränkungen etwa der Forschungsfreiheit seien. Aus seiner Erfahrung als Bankier und Wirtschaftsprüfer berichtete der ehemalige Vorstandsvorsitzende der Landesbank Rheinland-Pfalz, Klaus Adam. Ungeachtet ihrer Stellung in der betrieblichen Hierarchie verzichteten viele Mitarbeiter aus freier Entscheidung auf ihre Rechte. (Frankfurter Allgemeine Zeitung, 14.09.2005)

The most recent debate revolves around ecological problems. Even though these contexts are the least prominent within the discourse of 'Globalisierung' there is an increase in use of the collocates *Nachhaltigkeit*, *Ökologie*, *Umweltzerstörung* between 2002 and 2006. They point to contexts where effects of globalisation on human health and the environment are communicated (see citation 6).

- 6) Machen die großen Konzerne mit ihrer grenzenlosen Freiheit die Welt schlechter? Ja, unbedingt. Zu dieser These läuft seit anderthalb Jahren ein Forschungsprojekt beim Wuppertal Institut für Klima, Umwelt und Energie. Titel: "Welche Globalisierung ist zukunftsfähig?" Zwei Dutzend Wissenschaftler, unter ihnen Vordenker Wolfgang Sachs, entwerfen Konzepte für eine "ökologische Gerechtigkeit, eine nachhaltige Weltinnenpolitik und zukunftsfähige Technologien für den Süden und Osten". Mit Zeitreihen über Stoffströme, Erosion und Flächenverbrauch versuchen sie zudem, einen Zusammenhang zwischen **Globalisierung** und zunehmender **Umweltzerstörung** auszumachen. (die tageszeitung, 28.06.2003, S. 7)

Generally, incompatibles of *Globalisierung* show that the term is contextually embedded in a number of economic, social-political, cultural, technological and ecological contexts within the general discourse of globalisation. A closer study of other nominal syntagmatic co-occurrences which are not semantically related by a relation of incompatibility (e.g. *Kapital, Finanzen, Weltmarkt, Außenpolitik, Arbeitsmarktreform, Sozialabbau, Computer, Informationstechnologie, Identitätsverlust, Kultur, Vereinheitlichung*) and adjectival co-selections (e.g. *ökonomisch, sozial, neoliberal, kulturell, technologisch*) illustrates that most of them can be ascribed to these same thematic subfields. They substantiate the existence of various topical subjects within the broader discussion of a discourse community. Furthermore, from an analysis of the larger contextual environment and the examination of other recurring patterns a more detailed picture can be derived of people's ambivalent attitudes towards a globalised world which is mirrored in numerous other collocations, but not further elucidated here.<sup>8</sup>

## 5. Lexicographic Relevance

This section turns to the questions of how the investigation of incompatibles can be beneficial for the lexical semantic description of words for lexicographers. In most general German dictionaries the entry *Globalisierung* is not included. At present, only two reference works provide a short definition of the lexeme. These are NEUER WORTSCHATZ: NEOLOGISMEN DER 90ER JAHRE IM DEUTSCHEN<sup>9</sup> and DAS GROßE WÖRTERBUCH DER DEUTSCHEN SPRACHE by Duden. Their definitions are as follows:

**Globalisierung:** die im ausgehenden 20. Jahrhundert einsetzende globale Verflechtung der Wirtschaft, die zur Herausbildung eines weltumfassenden Marktes führen soll. (from NEUER WORTSCHATZ. NEOLOGISMEN DER 90ER JAHRE IM DEUTSCHEN)

**Glo|ba|li|sie|rung,** die; -, -en: *das Globalisieren, Globalisiertwerden:* die G. der Wirtschaft; Nirgendwo ist die G. weiter fortgeschritten als auf den Finanzmärkten (Zeit 10.05. 96, 30). (from DUDEN-DWDS)

The following problems arise from such definitions. The first semantic explanation describes a process that refers solely to an economic development. The second definition lacks any thematic reference and violates fundamental lexicographic principles with its circular paraphrase. Its added newspaper citation also only illustrates an economic context.

Comparing these definitions and the citation to the spectrum of information briefly sketched above demonstrates the large discrepancy of lexical-semantic information gained when consulting a dictionary and corpus material. The corpus-driven analysis of incompatibles alone showed that the process denoted by

<sup>8</sup> For more details on attitudes that are associated with the concept of globalisation and their lexical collocational indicators see Storzjohann (2007 forthcoming).

<sup>9</sup> This reference work is now also available online and free of charge as part of the dictionary portal of the IDS Mannheim under [www.elexiko.de](http://www.elexiko.de).

*Globalisierung* is not only restricted to semantic properties as identified in business contexts. It is applied in a broader range of topics such as politics, society, technology, communication, culture and the environment. Apart from ecological issues addressed in only a few texts of the discourse, none of the topical domain is marginal enough to be semantically neglected. On the contrary, most of the contextual instantiations or semantic specifications are in fact conventionalised. As a result, a definition should include that *Globalisierung* designates a process of internationalisation, networking and intertwining on a social, cultural, economic, political or technological level where different areas or structures become interrelated with others on a larger, often worldwide, level. Furthermore, it could be added that *Globalisierung* can be interpreted to result in a certain homogeneity or uniformity. From a lexicographic point of view it could be argued that the latter even justifies the listing of a second sense.

For the two dictionaries mentioned here the lack of such information has different reasons. Notoriously, the problem of space is a difficulty every print dictionary has to face. And comprehensive definitions require more dictionary space. Historically, some of the thematic diversity started developing after 2000, when for example the DUDEN-DWDS was published, which might justify the one-sided concentration on the economic domain. The dictionary of neologisms was, however, published in 2004. The lack of essential semantic information can primarily be traced back to methodological problems. Here, both reference works serve as a good example for common German lexicographic practice. Although these dictionaries work with electronic corpora, they primarily apply a corpus-based and not a corpus-driven methodology. That means that they use the corpus to validate their assumptions and to find good citations to fit their hypotheses. In such cases, observable data is not used as the basis for linguistic statements. As Sinclair remarks:

The impact of corpus evidence on linguistics description is now moving beyond the simple supply of a quantity of attested instances of language in use. (Sinclair, 2004: 148)

Unfortunately, this is not generally the case in the German lexicographic landscape. In order to move away from a simply a supply of a quantity of attested language material, lexicographers need to work with a corpus-driven methodology: for example, conducting a collocation analysis where the corpus is being approached without prior expectations. It is the empirical approach, as guaranteed by a corpus-driven analysis, which permits generalisations. With regard to a corpus-based methodology Tognini-Bonelli crucially points out:

There might be a large number of potentially meaningful patterns that escape the attention of the traditional linguist; these will not be recorded in traditional reference works and may not even be recognised until they are forced upon the corpus analyst by the sheer visual presence of the emerging patterns in a concordance page. (Tognini-Bonelli, 2001: 86)

The two examples given here demonstrate that methodologies have an impact on the results gained from a linguistic analysis. Specific methodological procedures are essential for gaining additional or even different information for the semantic description of a lexical item and which is sufficient to be integrated into a

lexicographic description. Above all, the corpus-driven examination of incompatibles can help to determine a lexeme's meaning more objectively.<sup>10</sup>

## 6. Summary

In this paper, it was shown that the relation of incompatibility is more than just a relation of exclusiveness that serves to structure parts of the lexicon. In fact, it also contributes to the semantic potential of a lexical unit by indicating integral discourse patterns. It has been shown that the study of incompatibility is relevant for defining parts of the semantic property for words denoting concepts which are perceived controversially in a discourse community. Here, incompatibles serve as a good means to central intrinsic semantic structures. They can expose a broad semantic framework around a key word in a particular discourse. The following corroborates the point that contextual relations, meaning and discourse are closely linked and mutually dependent. Twice Cruse emphasised the special significance of incompatibles.

A special significance attaches to sets of incompatibles which fall under a single superordinate. (Cruse, 1986: 93)

The relation between these hyponyms is an important and rather special one. It is not simply a difference of meaning. (Cruse, 2004: 162)

Although Cruse unfortunately leaves the question unanswered what this special importance is, and he might not have had a discourse-oriented function in mind, he must have recognised their semantic potential.

As pointed out earlier, even though incompatibles can serve as crucial evidence for thematic diversity within a specific discourse, they do not shed a light on the whole spectrum of the discourse. But they lead the analyst to specific contexts where different topics, perspectives and argumentations are present. However, as some examples from dictionary entries show, their importance has been underestimated or not been recognised for a long time. From a theoretical point of view, paradigmatic relations have often been strictly differentiated from syntagmatic relations, and in corpus linguistic terms particularly phenomena of co-occurrence were of interest to semanticists. This conventional distinction is not justified because paradigmatic relations are contextually realised in systematic patterns or constructions and can be accessed through an investigation of co-selection. Therefore, they are amenable to automatic retrieval, particularly through a corpus-driven analysis of collocational patterns. The visual appearance of a list of significant collocates often allows for semantic grouping of related items into different sets.

The objective of this paper has been to stress that the subject of incompatibility deserves greater attention from a variety of angles. On the one hand, lexicographers might gain useful insights into the semantic diversity of a lexeme, obtain important lexical information and write definitions that are more realistic with respect to lexical usage. On the other hand, semantic theoreticians need to approach sense relations in general outside a strict paradigmatic system. Methodologically, corpus studies furnish scholars with empirical procedures to review their insights on the paradigmatics of a word and to arrive at new findings on language in use. Only

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<sup>10</sup> There are other lexicographic processes where a corpus-driven methodology has limits in terms of extraction of specific information, see for example Storjohann (2005).

then can the phenomenon of sense relations finally be accounted for satisfactorily in contemporary semantic theories.

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