Magdalena Krawiec

Conceptual Metaphors as an Organisational Framework of the Specialist Language of IT



V&R unipress



unipress

© 2022 V&R unipress | Brill Deutschland GmbH
ISBN Print: 9783847114529– ISBN E-Book: 9783847014522

Interdisziplinäre Verortungen
der Angewandten Linguistik

Band 3

Herausgegeben von
Sylwia Adamczak-Krysztofowicz, Silvia Bonacchi,
Przemysław Gębal, Jarosław Krajka, Łukasz Kumięga
und Hadrian Lankiewicz

Die Bände dieser Reihe sind peer-reviewed.

© 2022 V&R unipress | Brill Deutschland GmbH
ISBN Print: 9783847114529– ISBN E-Book: 9783847014522

Magdalena Krawiec

Conceptual Metaphors as an Organisational Framework of the Specialist Language of IT

An Analysis of Cloud Computing Terminology

With 28 figures

V&R unipress

© 2022 V&R unipress | Brill Deutschland GmbH
ISBN Print: 9783847114529– ISBN E-Book: 9783847014522



Bibliografische Information der Deutschen Nationalbibliothek
Die Deutsche Nationalbibliothek verzeichnet diese Publikation in der Deutschen Nationalbibliografie; detaillierte bibliografische Daten sind im Internet über https://dnb.de abrufbar.

Finanziert von der Universität Rzeszów.

© 2022 Brill | V&R unipress, Theaterstraße 13, D-37073 Göttingen, ein Imprint der Brill-Gruppe (Koninklijke Brill NV, Leiden, Niederlande; Brill USA Inc., Boston MA, USA; Brill Asia Pte Ltd, Singapore; Brill Deutschland GmbH, Paderborn, Deutschland; Brill Österreich GmbH, Wien, Österreich)
Koninklijke Brill NV umfasst die Imprints Brill, Brill Nijhoff, Brill Hotei, Brill Schöningh, Brill Fink, Brill mentis, Vandenhoeck & Ruprecht, Böhlau und V&R unipress.
Alle Rechte vorbehalten. Das Werk und seine Teile sind urheberrechtlich geschützt.
Jede Verwertung in anderen als den gesetzlich zugelassenen Fällen bedarf der vorherigen schriftlichen Einwilligung des Verlages.

Umschlagabbildung: *Conceptualisation,* © Magdalena Krawiec

Vandenhoeck & Ruprecht Verlage | www.vandenhoeck-ruprecht-verlage.com

ISSN 2749-0211
ISBN 978-3-8470-1452-2

© 2022 V&R unipress | Brill Deutschland GmbH
ISBN Print: 9783847114529– ISBN E-Book: 9783847014522

To my parents
for teaching me that anything is possible

To my husband
for making everything possible

© 2022 V&R unipress | Brill Deutschland GmbH
ISBN Print: 9783847114529– ISBN E-Book: 9783847014522

© 2022 V&R unipress | Brill Deutschland GmbH
ISBN Print: 9783847114529– ISBN E-Book: 9783847014522

Contents

Typographic conventions 11

Table of abbreviations 13

Acknowledgments 15

Introduction 17

Chapter One: Theories of terminology 23
1.0 Introductory 23
1.1 Wüster's General Terminology Theory 26
1.2 Socioterminology Theory 36
1.3 Cabré's Communicative Theory 40
1.4 Temmerman's Sociocognitive Terminology Theory 44
1.5 Faber's Frame-based terminology 49
1.6 Concluding remarks 53

Chapter Two: Specialist languages 55
2.0 Introductory 55
2.1 A historical account of specialist languages 57
2.2 Specialist language as a three-dimensional structure 67
2.2.1 Specialist linguistic expressions 68
2.2.2 Specialist knowledge 78
2.2.3 Specialist (professional) practices performed in professional settings 88
2.3 Concluding remarks 94

Chapter Three: Approaches to the study of conceptual metaphor and its extensions 97
3.0 Introductory 97

© 2022 V&R unipress | Brill Deutschland GmbH
ISBN Print: 9783847114529– ISBN E-Book: 9783847014522

3.1 From metaphor in language to metaphor in thought 98
3.2 Conceptual and Contemporary Metaphor Theory 104
3.2.1 The multi-level view of conceptual metaphor 109
3.2.2 The nature of conceptual mappings between conceptual domains 112
3.2.3 Image schemas and embodied experience 115
3.3 Conceptual Blending and mental spaces 121
3.4 Concluding remarks 130

Chapter Four: Methodology 131
4.1 Purposes, research questions and research hypotheses 131
4.2 Corpus 132
4.3 The procedure for conceptual metaphor analysis and other methodological guidelines 134
4.3.1 Complementary methodological remarks 141
4.4 Limitations and delimitations of the methodology 142

Chapter Five: Analysis of conceptual metaphors within the specialist language of information technology 145
5.0 Introductory 145
5.1 CLOUD COMPUTING IS A PERSON 145
5.1.1 CLOUD COMPUTING IS A PERSON WITH EMOTIONS 147
5.1.2 CLOUD COMPUTING IS A PERSON WITH ROLES/OCCUPATIONS 161
5.1.3 CLOUD COMPUTING RELATIONS ARE KINSHIP RELATIONS . . 167
5.1.4 CLOUD COMPUTING LIFECYCLE IS HUMAN LIFECYCLE 175
5.1.5 CLOUD COMPUTING ACTIVITY IS HUMAN ACTIVITY 178
5.1.5.1 INTERACTING WITH THE CLOUD IS CONVERSING WITH A PERSON 184
5.1.5.2 USING THE CLOUD IS OUTSOURCING SERVICES 188
5.1.5.3 USING THE CLOUD IS RENTING A WAREHOUSE 191
5.1.6 THE CONDITION OF CLOUD COMPUTING IS THE HEALTH OF A PERSON 193
5.1.7 PARTS OF CLOUD COMPUTING ARE THE PARTS OF A PERSON 200
5.1.8 THE FUNCTION OF CLOUD COMPUTING IS THE FUNCTION OF A PERSON 202
5.2 CLOUD COMPUTING IS AN ANIMAL 204
5.3 CLOUD COMPUTING IS COMPETITION 210
5.4 CLOUD COMPUTING IS COMBAT 211
5.5 CLOUD COMPUTING IS COMMITTING A CRIME 218

© 2022 V&R unipress | Brill Deutschland GmbH
ISBN Print: 9783847114529– ISBN E-Book: 9783847014522

5.6 CLOUD COMPUTING IS DEFENCE 224
5.7 CLOUD COMPUTING IS ESPIONAGE 232
5.8 CLOUD COMPUTING IS INTRUSION 242
5.9 CLOUD COMPUTING IS OUTER SPACE/THE COSMOS 244
5.10 CLOUD COMPUTING IS A MACHINE WITH MODES OF OPERATION . . 248
5.11 CLOUD COMPUTING IS FOOD/CUISINE 252
5.12 CLOUD COMPUTING IS VOGUE 258
5.13 VIRTUAL SPACE IS PHYSICAL SPACE 263
5.13.1 THE CLOUD IS AN INHABITABLE AREA 264
5.13.1.1 MOVING TO THE CLOUD IS RELOCATING TO A NEW PLACE 267
5.13.1.2 THE CLOUD IS A RESIDENTIAL BUILDING . . 271
5.13.2 VIRTUAL PROCESS IS PHYSICAL PROCESS 273
5.13.3 VIRTUAL MOVEMENT IS PHYSICAL MOVEMENT 281
5.13.4 Image-schematic representation of VIRTUAL SPACE 292
5.13.4.1 VIRTUAL SPACE IS A SURFACE 293
5.13.4.2 VIRTUAL SPACE IS A CONTAINER 298
5.13.4.3 VIRTUAL SPACE IS A PATH 307
5.14 Concluding remarks 326

Conclusions 327

References 337

© 2022 V&R unipress | Brill Deutschland GmbH
ISBN Print: 9783847114529– ISBN E-Book: 9783847014522

© 2022 V&R unipress | Brill Deutschland GmbH
ISBN Print: 9783847114529– ISBN E-Book: 9783847014522

Typographic conventions

single quotations '…':
- dictionary definitions
- translations
- transliterations

italics:
- names of dictionaries – *Macmillan Dictionary, Longman Dictionary*
- words in Greek or Latin – *μεταφορά, πόρρωθεν*
- metaphorical expressions instantiating conceptual metaphors – *to obfuscate, responsive*
- to introduce theoretical notions – *specialist language*, Faber's *Frame-based theory*

bold:
- emphasis
- metaphorical expressions in corpus examples

CAPITALS:
- conceptual metaphors – CLOUD COMPUTING IS A PERSON
- blends – COMPUTER VIRUS
- frames – ACTING MALICIOUSLY
- mental spaces – EXPLORER

© 2022 V&R unipress | Brill Deutschland GmbH
ISBN Print: 9783847114529– ISBN E-Book: 9783847014522

© 2022 V&R unipress | Brill Deutschland GmbH
ISBN Print: 9783847114529– ISBN E-Book: 9783847014522

Table of abbreviations

AMAS	*Exam Ref 70–535 Architecting Microsoft Azure Solutions*
BDCIT	*Barron's Dictionary of Computer and Internet Terms*
CH	*Computer Hope*
CMA	*Corpus approach to Metaphor Analysis*
DMAS	*Exam Ref 70–532 Developing Microsoft Azure Solutions*
DWAW	*Exam Ref 70–487: Developing Windows Azure and Web Services*
IMAIS	*Exam Ref 70–533 Implementing Microsoft Azure Infrastructure Solutions*
IT	*Information Technology*
KWIC	*Key-Words-In-Context*
LBD	*Longman Business English Dictionary*
LD	*Longman Dictionary of Contemporary English*
MA	*Microsoft Azure*
MAAR	*Exam Ref AZ-103 Microsoft Azure Administrator*
MAFS	*Exam Ref AZ-900 Microsoft Azure Fundamentals*
MASC	*Microsoft Azure Security Center*
MASI	*Microsoft Azure Security Infrastructure*
MASP	*Microsoft Azure Sentinel Planning and implementing Microsoft's cloud-native SIEM solution*
MD	*Macmillan Dictionary*
MIP	*Metaphor Identification Procedure*
ODCS	*Oxford Dictionary of Computer Science*
PSQL	*Exam Ref 70–765 Provisioning SQL Databases*

© 2022 V&R unipress | Brill Deutschland GmbH
ISBN Print: 9783847114529– ISBN E-Book: 9783847014522

© 2022 V&R unipress | Brill Deutschland GmbH
ISBN Print: 9783847114529– ISBN E-Book: 9783847014522

Acknowledgments

Although I assume full responsibility for this book, let me take this opportunity to acknowledge that I have benefited from the help of other people, to whom I would hereby like to offer my sincere thanks. The following deserve special mention.

The list of inspirations that I received from Professor Marcin Grygiel is long, but discussing all of them in detail is a task I find unattainable. I wish to extend my words of gratitude for his insightful comments, encouragement, continued interest in my ideas and willingness to discuss them with me.

I also wish to thank Professor Agnieszka Mac for providing me with the opportunity to hone my competence as an academic teacher, and participate in my first academic undertakings.

On a personal note, warm thanks are due to my husband – without his continuous enthusiasm I would not have found the stamina to see this book all the way through to its final completion, and my parents for unswerving patience, and even more unswerving patience.

© 2022 V&R unipress | Brill Deutschland GmbH
ISBN Print: 9783847114529– ISBN E-Book: 9783847014522

© 2022 V&R unipress | Brill Deutschland GmbH
ISBN Print: 9783847114529– ISBN E-Book: 9783847014522

Introduction

If language constantly changes and mirrors the manner in which we think, then conceptual structures – which are mirrored in language – must be under constant reconstruction as well. In the cognitive-linguistic view, the human conceptual structure is organised through conceptual metaphors which may not be comprehended independently of their experiential basis (Lakoff and Johnson 1980: 19). Accounted for by Lakoff and Johnson (2003: 203) as "cross-domain mapping[s] in the conceptual system", conceptual metaphors map our concrete experience onto abstract experiences, so as to effortlessly get hold of new emergent concepts. To put it straightforwardly, conceptual metaphors enable us to picture what is otherwise too abstract to be pictured, to name what is otherwise too abstract to be named, to classify what is otherwise too abstract to be classified, and to reason about what is otherwise too abstract to be reasoned about. Nevertheless, none of these are feasible, unless they are closely tied to and build on our experiential basis.

Our ability to interpret the unfamiliar in terms of the familiar or "to see resemblances" (Bolinger 1980: 141) or "correspondences" (Lakoff 1993: 245), to "perceive connections" (Black 1993: 37) or "experiential similarities" (Lakoff and Johnson 1980: 154), or simply to make "our world *thinkable*" (Lee 1992: 69), rests on the use of our past experiences. Whether in specialist or non-specialist scenery, humans' experiential basis is far from static. Rather, it is subject to constant development when we interact with the world around us. It is through this interaction that new generations of specialists familiarise themselves with as yet unknown conceptual structures. On that note, specialists may understand the codifications of conceptual mappings in the form of specialist linguistic expressions coined by earlier generations of specialists. Specialists' *thinkability* – to use Lee's (1992: 69) term – of the specialist surroundings is grounded in their perception of similarity which enables them to adapt both conceptually and linguistically to their specialist practice.

Conceptual metaphors permeate the terminology of many specialist languages (Ureña Gómez-Moreno 2011; Herrmann and Sardinha 2015; Grygiel

© 2022 V&R unipress | Brill Deutschland GmbH
ISBN Print: 9783847114529– ISBN E-Book: 9783847014522

2015a, 2017a). Within the canvas of cognitive linguistics, metaphorical mappings "are means of extending the resources of a language" (Ungerer and Schmid 1996: 128). Nevertheless, in specialist-linguistic surroundings, conceptual metaphors lay foundations not only for purely linguistic output – i. e. specialist terminology – but are also imprinted in specialist knowledge and specialist practices. Without conceptual metaphors, specialists would be unlikely to acquire and generate specialist knowledge and arrive at an all-encompassing understanding of such impenetrable specialist fields as that of information technology.

Let us explain here that some observations and references made in this dissertation are linked to my personal three-year experience of working in an IT-centred company. I had the opportunity to observe and engage in communication with software testers, analysts and developers on a daily basis. My observations in this dissertation also cover specialist experience and specialist knowledge from my one-year participation in a software testing / quality assurance team, which made me attentive to the manner in which IT specialists, manifesting all levels of specialisation, metaphorically conceptualise the specialist field of cloud computing and information technology in general. What sparked my interest in scrutinising the patterns of metaphorical conceptualisation of the specialist language of information technology was the spectrum of anthropomorphised linguistic expressions that IT specialists used so as to refer to various technological products and processes. They talked of applications or performance that *suffer*, of machines that *experience* failures, of interfaces that are *intuitive*, *responsive* and *friendly*, and of software that is *malicious.*

The present thesis is aimed at scrutinising cloud computing terminology, so as to investigate whether conceptual metaphors may be regarded as an organisational framework of the specialist language of information technology. Therefore, throughout the present dissertation we rely extensively on the notions of *terminology*, *specialist language* and *conceptual metaphor* in our own argumentation concerning the conceptual metaphorisation of the specialist language of information technology. We find these notions inseparably linked to one another in contemporary debate on the conceptual structure of any specialist field, including information technology. The three notions operate as solid pillars on which further theoretical and empirical elaborations are founded. We are intentionally selective in our choice, and we avoid providing the reader with a wide panorama of notions, concepts and ideas in the realm of terminological research and conceptual metaphors. This is owing to the fact that there is a plethora of theoretical publications providing exhaustive presentation of the issues at hand. Nevertheless, an attempt is made to draw an insightful picture of our conception of specialist language which we believe that as a notion remains unexplained and merits further discussion and arrangement.

© 2022 V&R unipress | Brill Deutschland GmbH
ISBN Print: 9783847114529– ISBN E-Book: 9783847014522

The choice of the three notions signalled in the dissertation's title is not accidental. Whether advocated or criticised, the notion of conceptual metaphor serves at least as a point of reference in any contemporary cognitive-linguistic discussion concerning the manner in which specialist fields are conceptualised. Our reference to the notion of specialist language is due to the fact that this notion is frequently employed to account for terminology couched in specialist settings, whereas, as a matter of fact, the notion of specialist language pertains to the crucial link between conceptualisation and language. The last notion – that of terminology – is included in the title to, firstly, separate it from the notion of specialist language, and secondly, to illustrate its cognitive grounding. The interplay of conceptual metaphors, specialist languages and terminology aims to arrive at a coherent and all-encompassing picture of the conceptual structure of the specialist language of information technology.

The present study relies on close hands-on language analysis of the source material, and is based on authentic natural language, which means that it includes corpora-extracted attestations. Nevertheless, in some cases it seemed more insightful to include a wider range of conceptualisations than the ones offered by the corpus texts. To that end, examples provided by the Google search engine were also referred to in drawing a more vivid and illustrative picture of a given target domain. We support our idea of relying on the World Wide Web as a fairly representative language corpus by following Grygiel (2013: 17–18) who claims that "www pages serve as a rich source of revealing language material and allow us to formulate a number of theoretical generalisations".

Content-wise, the present dissertation is organised as follows. Chapter 1 offers a synthesis of available approaches to terminology and a bird's eye view of accounts of theoretical terminological research, such as Wüster's *General Terminology Theory*, *Socioterminology Theory*, Cabré's *Communicative Terminology Theory*, Temmerman's *Sociocognitive Terminology Theory* and Faber's *Frame-based terminology*. The primary purpose of this chapter is to present the cognitive and communicative shift that terminology has undergone throughout the years. The said cognitive shift rearranges the understanding of terms that are frequently treated as mere denotations of concepts, and draws more attention to their underlying conceptual structure.

In Chapter 2, our attention is directed towards *specialist languages*. An attempt is made to provide a concise overview of research on the evolution of the notion of specialist language since the 1960s. To that end, S. Grucza's (2013a) four-partite timespan serves as an inspiration for framing and arranging anew the historical classifications. Furthermore, we suggest that specialist language should be approached as a multimodal form of specialist communication and representation of a micro-reality which integrates three dimensions: specialist linguistic expressions, specialist knowledge and professional practices.

© 2022 V&R unipress | Brill Deutschland GmbH
ISBN Print: 9783847114529– ISBN E-Book: 9783847014522

Chapter 3 draws a broad background for the notion of *conceptual metaphor* which constitutes the central reference framework for this thesis. In Chapter 3, we succinctly present how metaphor works in language, by tracing the historical development of its conception. The original Greek metaphor underwent a real metamorphosis, starting from the Aristotelian *ornatus orationis* ('ornament of speech') to become a conceptual metaphor in thought, and finally re-established its firm grounding in cognition. Within the contours of Chapter 3, also the notions of *conceptual blending* and *image schemas* are elaborated on to the extent that the scope of the analytical section allows it.

In Chapter 4, we extensively discuss the methodological guidelines that governed the investigation outlined in the analytical section. The present dissertation is corpus-driven and inductive (interpretative) in nature. In our methodological assumptions, we have settled upon analysing the corpus material without any presumption of conceptual metaphors, therefore we have opted for an *ex post facto* (after-the-fact) research design. The methodology adopted in this thesis follows a tailored three-stage and six-step combination of the MIP (Pragglejaz Group: 2007) metaphor identification procedure and Charteris-Black's (2004) corpus approach to metaphor analysis (CMA), with a few modifications. The corpus texts were processed by means of *Sketch Engine*, a corpus manager and text analysis software, which aided in concordancing and KWIC ('key-words-in–context') analysis.

Finally, in Chapter 5, we analyse the corpus texts revolving loosely around the theme of *cloud computing*, chosen as the reference base for the detection and investigation of potential conceptual metaphors cast within the specialist field of information technology. Note that in Chapter 5, information technology is understood as an umbrella macro conceptual target domain encompassing other target domains discussed in this chapter, such as for instance CLOUD COMPUTING, CLOUD COMPUTING RELATIONS, USING THE CLOUD or VIRTUAL SPACE. Upon that note, the metaphorical expressions regarded as instantiating the CLOUD-oriented target domains are claimed to instantiate the macro target domain of INFORMATION TECHNOLOGY as well. Analysing the corpus texts we have formulated a thesis that conceptual metaphors act as an organisational framework of the specialist language of information technology. The dissertation ends with a conclusion of the entire study.

To recapitulate, the present dissertation is intended to fill in the obvious lacuna in the uncharted field of linguistic analysis of more specific types of IT specialist languages, and contribute to a better understanding of the still scarcely researched interface of conceptual metaphors and information technology. Our study is primarily aimed at offering a creative and insightful synthesis of a number of theoretical sources that will help formulate a number

© 2022 V&R unipress | Brill Deutschland GmbH
ISBN Print: 9783847114529– ISBN E-Book: 9783847014522

of observations and proposals in the area of conceptual metaphorisation and specialist languages.

© 2022 V&R unipress | Brill Deutschland GmbH
ISBN Print: 9783847114529– ISBN E-Book: 9783847014522

© 2022 V&R unipress | Brill Deutschland GmbH
ISBN Print: 9783847114529– ISBN E-Book: 9783847014522

Chapter One: Theories of terminology

1.0 Introductory

A discussion of approaches to terminology is relevant within the contours of this dissertation for a number of reasons. Firstly, with regard to the perception of specialist languages presented in this dissertation (SEE SECTION 2.2), terminology does not constitute merely a definite set of terms denoting processes, activities and artifacts couched in specialist surroundings (Goźdź-Roszkowski and Witczak-Plisiecka 2011: 5). Rather, terms are regarded as access points to more complex knowledge structures (Faber 2009: 109). Specialists use terminology not only to name the components of specialist reality, express themselves or exchange thoughts. Terms enable specialists to organise the structure of their disciplines (Cabré 1999b: 39).

Secondly, with regard to conceptual metaphors (SEE Chapter 3), it is possible to claim that terms constitute linguistic realisations of conceptual mappings in specialist settings. Therefore, from a cognitive point of view, specialists use terminology to introduce order and sequence in the arrangement of thoughts (Cabré 1999b: 45). For S. Grucza (2019: 7), the purpose of terminology is to obtain specialist knowledge which, in turn, may not be instantiated without linguistic realisation in the form of terms. Accordingly, inasmuch as terminology enables specialists to gather and transfer specialist knowledge (SEE SECTION 2.2), it may be argued to constitute the basic tool of the intellectual work of every specialist.

The word *terminology* may either be marked with a lower- or upper-case letter (Temmerman 1997: 52; Faber 2012: 16). When capitalised, *Terminology* constitutes a scientific discipline with its own theoretical framework within which the dynamics of *terminology* (i. e. the terms) are accounted for.[1] It needs to be stated

1 Nowicki (1986: 15) claims that referring simultaneously to a science and a set of terms with the same term *terminology*, and using phrases such as *legal terminology* or *medical terminology*, does not contribute to disambiguation. Nowicki (1986) advocates a division into a *terminology* understood as a science, and *a set of terms* or *specialist nomenclature*. Similarly, F. Grucza

© 2022 V&R unipress | Brill Deutschland GmbH
ISBN Print: 9783847114529– ISBN E-Book: 9783847014522

that the present chapter (Chapter 1) does not aim to arrive at a unified and all-encompassing account of what *Terminology* is or might be. Rather, it is concerned with a historical synthesis of theoretical considerations linked to *terminology* and its evolution from a prescriptive to a descriptive activity. The primary purpose of this chapter is to present the cognitive and communicative shift that *terminology* has undergone, which "is conducive to a greater emphasis on meaning as well as conceptual structures underlying texts and language in general" (Faber 2009: 109). For the sake of simplicity, throughout the present dissertation the word *terminology* is used in lower case.

Terminological studies, of which Wüster's *General Terminology Theory* (SEE SECTION 1.1), *Socioterminology Theory* (SEE SECTION 1.2), Cabré's *Communicative Terminology Theory* (SEE SECTION 1.3), Temmerman's *Sociocognitive Terminology Theory* (SEE SECTION 1.4) and Faber's *Frame-based terminology* (SEE SECTION 1.5) are integral parts, may be considered as either prescriptive or descriptive in nature (Faber 2012: 16).

Investigating terminology has a well-established tradition, although in the 18th and 19th centuries it was yet to became a separate field of study. At that time, engineers and practitioners within their specialist fields – rather than linguists – exhibited interest in standardising the relationship between terms and concepts, and were the first to have laid the methodological foundations of terminology as a field of study *per se* (Trojar 2017: 60; Włoskowicz 2018: 73). It needs to be emphasised that until the second half of the 20th century, linguists remained uninterested in the study of terminology, which as such came into existence as a result of scientists and engineers' need to solve cognitive-communicative issues within their specialist fields (Cabré 1999b: 2; Tomaszczyk 2014: 27).

With a view to the growing internationalisation of science advocated by botanists, chemists and zoologists especially in the years 1867–1889, it was necessary to establish principles as to how create terms (Cabré 1999b: 1). As pointed out by Rey (1995: 49), "[o]nly in the twentieth century has terminology acquired a scientific orientation while at the same time being recognised as a socially important activity". The 20th century saw the advent of new technological inventions which necessitated the naming of new concepts; however, it was not until the second half of the century 20th that terminology received more attention from linguists rather than engineers or subject field specialists.

Perhaps one of the first scientists to have exhibited interest in the arrangement of terminology was Antoine Lavoisier (Tomaszczyk 2017: 384), considered by many the father of modern chemistry. Note that Lavoisier delved into the realm of

(1991b: 21) is of the opinion that the word *terminology* should be used in line with the prototype semantic function of the suffix -logia derived from Greek -*λογία* (logia) i.e. 'the study of'.

© 2022 V&R unipress | Brill Deutschland GmbH
ISBN Print: 9783847114529– ISBN E-Book: 9783847014522

chemical nomenclature as a chemist, not a linguist, which seems to corroborate scientists' (rather than linguists') involvement in the development of terminology as a separate field of study. It was already in the 18th century that Lavoisier (1790: xv) maintained that terms may not be separated from the specialist field, and that every specialist field "must consist of three things; the series of facts which are the objects of the science, the ideas which represent these facts, and the words by which these ideas are expressed" (SEE SECTION 2.2 for the discussion of specialist languages approached as an interplay of knowledge, practices and linguistic expressions).

Włoskowicz (2018: 73) is of the opinion that it was "technical thought" and its inherent precision that orientated the study of terminology towards onomasiology. It may be evidenced by the fact that apart from Lavoisier, also Eugen Wüster – considered the father of terminology (Cabré 1999b: 2; Protopopescu 2013; Trojar 2017: 55) – and Marian Mazur – one of the leading Polish terminologists (Włoskowicz 2018: 73) – represented engineering sciences. Both Wüster and Mazur worked on standardising terminology related to technological sciences – Eugen Wüster specialised in electrical engineering, and Marian Mazur in electrothermics and cybernetics. The role of terminology in specialist fields was also foregrounded by French mathematician and engineer Henri Poincaré (1854–1921) who – as quoted after Suszcz (2010: 216) – claims that a bare fact in itself tends to be deprived of any value. That same fact, however, acquires significance only when it is designated by a term. Terms, on the other hand, allow to some extent the verbalisation of concepts which, in turn, constitute components of knowledge. Within the discussion of terminology in relation to specialist fields, terms may be argued to operate as rudimentary means of the expression and exchange of scientific and technological thought and specialists' expertise (Suszcz 2010: 216).

Arguably, terminology started to be perceived as an independent discipline in the 1930s as a result of Wüster's terminological activity and his pioneering – at that time – doctoral dissertation entitled *Internationale Sprachnormung in der Technik, besonders in der Elektrotechnik* ('International language standardisation in technology, especially in electrical engineering') where he collected assumptions favouring the systemisation of terminology (Felber 1981). Inspired by the Wüsterian account of terminology, three traditional schools of terminology were established in the 1970s (Felber and Budin 1989; Picht and Laurén 1993): the Vienna School (Eugene Wüster), the Soviet School (Lubomír Drozd), and the Prague school (Dmitrij Semenovich Lotte, Sergey Chaplygin). The three schools anchored their approaches to terminological analysis in concepts rather than terms, considered terminology a means of expression and communication, and favoured Saussurean structuralism (Cabré 1999b: 13; Temmerman 2000b: 19–20).

© 2022 V&R unipress | Brill Deutschland GmbH
ISBN Print: 9783847114529– ISBN E-Book: 9783847014522

As far as the Polish contribution to the study of terminology is concerned, terminological research in Poland commenced in the 1920s, and was later interrupted by the outbreak of World War II (Stadtmüller 1922). In the 1950s and 1960s, Polish studies on terminology were resumed with the publication of Marian Mazur's (1961) *Terminologia techniczna* ('Technical terminology') and Mieczysław Szymczak's (1961) *Uwagi słowotwórcze o polskim współczesnym słownictwie technicznym* ('Word-formation remarks on contemporary Polish technical nomenclature'). Another researcher, Witold Nowicki (1978), an electrician himself, delved into the realm of terminology with the first – at that time – synthesis on selected terminological issues, entitled *O ścisłość pojęć i kulturę słowa w technice. Poradnik terminologiczno-językowy opracowany na przykładzie telekomunikacji i dziedzin pokrewnych* ('Towards the coherence of concepts and linguistic standards in technology. A terminology-linguistic handbook. A case study of telecommunications and related fields'). Nearly a decade later, with the publication titled *Podstawy terminologii* ('The rudiments of terminology'), Nowicki (1986) – inspired by Wüster – described terminology as an independent field of study and approached it onomasiologically i. e. from the angle of concepts. Nowicki (1986) believed that terminology can be used firstly – to tackle the rules concerning an arrangement of concepts, their designation, and a match of concepts and terms within specialist surroundings, and secondly – to opt for streamlined communication incorporated into those surroundings (Nowicki 1986: 14).

After a number of publications by engineers and practitioners within their technical fields that paved the way for terminological research in Poland, in the 1990s Gajda (1990) and F. Grucza (1991a; 1991b) were the first to have anchored the conception of terminology in linguistics. The works of F. Grucza (1991a; 1991b), Gajda (1990), and – more recently – Lukszyn and Zmarzer (2006) laid the foundations for Polish research on terminology and promoted it as an independent field of study (Tomaszczyk 2017: 40).

1.1 Wüster's General Terminology Theory

The following subchapter 1.1 outlines selected aspects of Wüster's *General Terminology Theory* whose author, Eugen Wüster (1898–1977), is commonly regarded as the father of terminology (Cabré 1999b: 2; Protopopescu 2013; Trojar 2017: 55). The present discussion of Wüster's General Terminology Theory tackles the issues that Wüster (1979: 1–2) himself enumerates as crucial with regard to terminology. Firstly – the onomasiological approach to terminological analysis ("Ausgehen von den Begriffen"; 'concepts as the starting point'), secondly – a focus on the designations of the concepts ("die Benennungen der

© 2022 V&R unipress | Brill Deutschland GmbH
ISBN Print: 9783847114529– ISBN E-Book: 9783847014522

Begriffe") and vocabulary ("der Wortschatz"), rather than morphology and syntax, and thirdly – the synchronic view of language ("synchronische Sprachbetrachtung"). Apart from that, this subchapter also aims to arrive at a succinct overview of Wüster's utilitarian view of specialist languages and his attitude towards the presence of polysemy, homonymy and synonymy in specialist settings, as well as the interplay of prescription and description with regard to terminological work.

Putting forward his original ideas included in the doctoral dissertation entitled *Internationale Sprachnormung in der Technik, besonders in der Elektrotechnik* ('International language standardisation in technology, especially in electrical engineering'), Wüster (1931) lays the foundations for his General Terminology Theory which he later develops and elaborates on. Note that Wüster (1976b) does not claim sole authorship of his theory. Instead, he acknowledges the contribution of Alfred Schlomann, Ferdinand de Saussure, Ernst Drezen and Edwin Holmstrom, and he recognises them as the intellectual fathers of terminology theory in general.[2] Although Wüster (1953) expresses his dissatisfaction with the fact that in his opinion linguists at that time were uninterested in specialist languages and the issue of terminological standardisation, he later acknowledges some exceptions, such as Leo Weisgerber (Wüster 1974: 138–139).

The explication of Wüster's ideas concerning terminology was done posthumously based on Wüster's lecture notes from the years 1972–74, and published by Helmut Felber – Wüster's disciple and long-time colleague – in 1979 as *Einführung in die allgemeine Terminologielehre und terminologische Lexikographie* ('Introduction to the General Theory of Terminology and terminological lexicography') (Cabré 2003: 166). Furthermore, our convergent reading of Wüster's original works on the one hand, and of Felber's (1984) *Terminology manual* on the other, shows that most of the criticism of Wüster's General Theory of Terminology relies on the latter as the most representative account of Wüster's ideas. Interestingly, also Cabré (2003: 166) and Trojar (2017: 74) maintain that in many cases, those opposing Wüster's view of terminology address their objections and reservations primarily to Felber's texts instead of delving into other writings of Wüster's authorship. Trojar (2017: 75) goes as far as to venture a statement that in his formulations "Felber proves to be more Wüsterian than Wüster […] which also begs the question to what extent Felber fully grasped Wüster's ideas". In this regard, it is noteworthy that Felber (1984) makes a

2 Wüster (1976b: 35) postulates the existence of four intellectual fathers of terminology theory, namely "Alfred Schlomann from Germany, the first to consider the systematic nature of special terms; the Swiss linguist Ferdinand de Saussure, the first to have drawn attention to the systematic nature of language; E. Dresen, a Russian, a pioneer in underscoring the importance of standardisation; and J. E. Holmstrom, the English scholar from UNESCO, who was instrumental in disseminating terminologies on an international scale".

© 2022 V&R unipress | Brill Deutschland GmbH
ISBN Print: 9783847114529– ISBN E-Book: 9783847014522

number of mistakes translating from German into English that add to the distortion of Wüster's theory and its misperception.

The rudiments of Wüster's conception of terminology begin with his experience as an engineer involved in the systematisation of national and international terminology which required, in turn, the "standardisation of physical objects, procedures and measurements in various branches of engineering" (Cabré 2003: 167). Hence, key findings of Wüster's General Terminology Theory emerge from his desire to eliminate ambiguity from technical texts in order to transform them into efficient tools of communication, and popularise standardised terminology among all users of specialist languages. Standardisation of terms within specialist surroundings may be argued to be useful for knowledge dissemination, especially with regard to international communication approached as an exchange of information across national borders. Wüster's interest in international standardisation of concepts becomes evident with his compilation of *The Machine Tool. An interlingual Dictionary of Basic Concepts* (1968) – a systematically organised French-English dictionary with a German supplement. For Wüster (1955), standardisation constitutes a high-quality tool to transfer specialist knowledge, also – or particularly – cross-nationally. Wüster's argumentation on the rationale behind standardisation reads as follows:

> what is meant by standardising technical language is standardising the technical terms that are used in technology. Essentially there is no difference between doing this and doing the same for the special terms that are current in other branches of knowledge; […] 'to standardise' means to discuss and to agree upon the general adoption of what is best among alternative possibilities and arrangements. […] it is just in respect of technical terms that the necessity exists for standardisation. The reason for this is that technical communication requires much greater precision that does popular discussion; and such standardisation is needed most of all in technology because, in that field, thousands of new concepts emerge every year on which names are bestowed from all sides (Wüster 1955: 1 – Wüster's own translation).

By *terminology* ("Terminologielehre"), Wüster (1973: 158; 1975: 33) means "a system of concepts and terms of a particular specialist field", and "a study of terms of a particular specialist field in a particular language" (Wüster 1976a: 40).[3] Wüster anchors his core conception of terminology in the "Ausgehen von den Begriffen" ('concepts as the starting point'), therefore exhibits a preference towards an onomasiological rather than semasiological approach with regard to

3 In the original German text, Wüster (1973: 158; 1975: 33) accounts for terminology as: "das Begriffs- und Benennungssystem eines Fachgebietes", and "Lehre von der Terminologie eines bestimmten Fachgebietes in einer bestimmten Sprache" (Wüster 1976a: 40). Wüster (1974) inclines towards the use of the word "Lehre" which conveys practical guidelines, rather than "Theorie" presenting a wholly theoretical perspective.

© 2022 V&R unipress | Brill Deutschland GmbH
ISBN Print: 9783847114529– ISBN E-Book: 9783847014522

terminological analysis.[4] In his oft-cited comment on the nature of terminology, Wüster (1991: 1) claims that "[e]ach terminological work starts from concepts and requires *sharp* demarcation between them" (Wüster 1991: 1).[5] Wüster (1931: 114) explains that a concept may be referred to as *sharp* – or clear-cut – if its boundaries are unquestionably fixed against the backdrop of other related concepts.[6] Wüster (1991: 8) sees concept as an aggregate of common characteristics that we find in the majority of objects and use as a means of our mental organisation (i. e. understanding) and communication. Concept, for Wüster (1991: 8), is therefore an element of thinking.[7]

The afore-adduced quotation in which Wüster (1991: 1) argues for a demarcation between concepts has been subject to extensive criticism (Sager 1990; Meyer 1992; Zawada and Swanepoel 1994; Cabré 1995; Kageura 1995), on the grounds that it has frequently been understood as Wüster's belief that concepts have definitional structure. As a matter of fact, Wüster (1991) tackles the issue of concepts from a prescriptive ("Soll-Norm", 'should-standard') rather than descriptive ("Ist-Norm", 'is-standard') angle, and therefore explains what concepts *should* be like rather than what they *are* like. Wüster's (1991) prescriptive terminology work "zielt auf" ('requires') "scharfe Abgrenzung" ('sharp demarcation') between the concepts, and a Wüsterian terminologist is one who demarcates in order to establish the prescriptive "Soll-Norm". Therefore, the idea of sharp demarcation is not inherently inscribed in the nature of specialist concepts. Instead, it appears in the aftermath of the terminologist's work.

Wüster (1991), who belongs to the school of traditional terminologists (Picht and Laurén 1993), is not interested in researching terms in context. Rather, he is concerned with determining what terms represent, which becomes evident in his

4 Wüster (1948: 7) stresses the fact that during semasiological studies of terminology, a great deal of information concerning terms may be collected. For Wüster (1991: 1), should all semasiological information (e. g. word family, possible realisations in texts, etymology, pronunciation, declinations, conjugations) recede into the background or be expelled from the research, and should the attention be drawn to concepts, a terminologist could much more easily manage the data. Nevertheless, it is not the excess of data that motivates Wüster's (1991) preference for onomasiology, but his belief that terminology is inherently concept-based.

5 The original Wüster's (1991: 1) wording reads as follows: "[j]ede Terminologiearbeit geht von den *Begriffen* aus. Sie zielt auf scharfe Abgrenzung zwischen den Begriffen".

6 In the original German text, Wüster (1931: 114) claims that: "[d]ie Bedeutung eines Ausdrucks der Zwecksprache soll möglichst scharf und zweckmäßig umgrenzt sein".

7 As far as the discussion of concepts is concerned, in the original German passage Wüster (1991: 8) maintains that: "[e]in Begriff – von "Individualbegriffen" werde hier abgesehen – ist das Gemeinsame, das Menschen an einer Mehrheit von Gegenständen feststellen und als Mittel des gedanklichen Ordnens ("Begreifens") und darum auch zur Verständigung verwenden. Der Begriff ist somit ein Denkelement. Das, was bei der Analyse eines Begriffes als einzelne Merkmale festgestellt wird, nennt man in seiner Gesamtheit den Begriffsinhalt. Insofern deckt sich der Begriff mit dem Begriffsinhalt".

© 2022 V&R unipress | Brill Deutschland GmbH
ISBN Print: 9783847114529– ISBN E-Book: 9783847014522

division into the "Ist-Norm" (descriptive standard) and the "Soll-Norm" (prescriptive standard). Wüster (1991: 2–3) maintains that general language evolves and develops in an uncontrolled manner, and "the sole prevailing norm is the norm of usage" – the "Ist-Norm", i. e. the descriptive standard.[8] In other words, amassing linguistic evidence in order to understand the meaning of a word is done by investigating language in use. The "Ist-Norm", i. e. the reflection of actual language use, constitutes the upshot of such an investigation. Wüster (1991: 2–3) maintains that in terminology – which by definition is prolific in terms – uncontrolled language development results in unacceptable confusion. Therefore, terminologists should exhibit interest in imposing norms upon language, standardising meaning in order to eschew ambiguity, and working with language as it should be used – hence the name "Soll-Norm" (Wüster 1991: 2–3). Wüster (1991: 2–3) continues that in specialist circumstances, it does not take much time for the "Soll-Norm" to turn into the "Ist-Norm".[9] Cabré (2003: 167) is of the opinion that "Wüster developed a theory about what terminology should be in order to ensure unambiguous plurilingual communication, and not about what terminology actually is in its great variety and plurality".

In order to arrive at a better understanding of Wüster's preference for onomasiology, it seems useful to outline his discussion of the multi-layered nature of concept and his tetradic word model. By making reference to Weisgerber's (1955; 1963) *wording of the world* ("Worten der Welt"), Wüster (1959/60: 269–271) claims that there are two essential relations that characterise words, i. e. relations between "individuals and concepts", and "signs and meaning" (Wüster 1959/60: 269–271). Wüster (1959/60: 269–271) explains that:

> [a]s soon as a human being gains consciousness, he finds himself constantly amidst a panoply of diverse sensory impressions conveyed by sight, hearing, smell, taste and touch. At the same time he feels pleasure and pain. Soon the child begins to analyse the respective panoply of sensory impressions. It forms the opinion that the perceived

8 In the original German text, Wüster (1979: 2) maintains that: "[i]n der Gemeinsprache gilt als Norm nur der tatsächliche Sprachgebrauch. Man kann ihn eindeutiger Ist-Norm nennen".

9 Consider Wüster's (1991: 2–3) original discussion of the prescriptive and descriptive standard: "[d]ie Sprachwissenschaft hat bis vor kurzem nur die freie, ungelenkte Sprachentwicklung gelten lassen. In der Gemeinsprache gilt als Norm nur der tatsächliche Sprachgebrauch. Man kann ihn eindeutiger "Ist-Norm" nennen. In der Terminologie dagegen, mit ihrer ungeheuren Fruchtbarkeit an Begriffen und Benennungen, führt die freie Sprachentwicklung zu einem untragbaren Durcheinander. Darum haben die Terminologen schon am Anfang unseres Jahrhunderts – auf einigen wenigen Fachgebieten sogar schon früher – begonnen, einheitliche Begriffe und Benennungen zu vereinbaren. Sie nennen eine solche Vereinbarung ebenfalls "Norm". Zur klaren Unterscheidung von den Ist-Normen hat man eine solche vereinbarte Norm als "Soll-Norm" bezeichnet. In der fachlichen Hochsprache werden Soll-Normen ziemlich schnell zu "Ist-Normen"".

© 2022 V&R unipress | Brill Deutschland GmbH
ISBN Print: 9783847114529– ISBN E-Book: 9783847014522

> impressions start from objective constructs which partly belong to its own body and partly are separated from it (Wüster 1959/60: 269–2711 – Wüster's own translation).

Wüster (1959/60: 269–271) maintains that anything toward which human thought may be directed – including facts – is referred to as *object*, whereas initially a human being interacts only with *individual objects* ("Individuen" / "individuelle Gegenstände"). Furthermore, the existence of an individual object, such as e. g. our physical or mental pain or a particular tree in our garden, is determined in time (Wüster 1959/60: 269–271). An individual object is an object that a human being experiences at a given moment. What is more, individual objects may be remembered even when they are no longer present (Wüster 1959/60: 271–272). "If such a memory is [...] not visual and retains only as much of the essence of the individual as is required for its identification, this recollection constitutes a *concept*". Wüster (1959/60: 271–272) calls the concept of an individual an *individual concept* ("Individualbegriff"). Therefore, the concept of an individual object a_1 or a_2 is called individual concept A_1 or A_2. Furthermore, Wüster (1959/60: 272–273) claims that the individuals a_1 or a_2 materialise (e. g. by way of embodiment) a *general concept* A ("Allgemeinbegriff"), and hence represent it.[10] Figure 1 explicates Wüster's idea.

With regard to the relation holding between signs and meaning, Wüster (1959/60) makes two important comments. Wüster (1959/60: 192) states that firstly, "[w]hat is designated by a sign is its meaning", and secondly "[a]s a rule, a sign is a concept and the meaning of the sign is also a concept".[11] Elsewhere in his work, Wüster (1959/60) refers to meaning as synonymous with the top vertex of Ogden and Richard's semiotic triangle, i. e. *thought or reference*. Therefore, both sign and meaning are treated by Wüster (1959/60) as (general) concepts (Figure 2). Furthermore, Wüster (1959/60) claims that that evocation of general concepts may not occur "without other suitable general concepts being associated to them as signs".

Inspired by Saussure's *linguistic sign* and Ogden and Richards' (1923) *semiotic triangle* as he seems to have been (Cabré 1999b: 41), Wüster (1959/60; 1991) advances his own tetradic word model ("Wortmodell").[12] Compared to a Saussurean linguistic sign, in his proposal Wüster (1959/60; 1991) included the ref-

10 Although Wüster (1959/60: 272–273) uses the word *concept* interchangeably with *general concept* and *individual concept*, throughout the present chapter the full terms *general concept* and *individual concept* are used in applicable cases for the sake of clarity.

11 Wüster's *Zeichen* lacks consensus translation-wise. Felber (1984) and Cabré (1999b) translate it as 'symbol', whereas Sager (2003) and Trojar (2017) as 'sign'.

12 Note that Felber (1984: 100) translates "Wortmodell" ('word model') as 'term model', which clearly constitutes a distortion of Wüster's General Terminology Theory. Consequently, this translation choice might have contributed to the mistaken perception among terminologists that the Wüsterian model postulates a radical separation of terms and words.

© 2022 V&R unipress | Brill Deutschland GmbH
ISBN Print: 9783847114529– ISBN E-Book: 9783847014522

erent, whereas with regard to Ogden and Richards' semiotic triangle – the dichotomy of *langue* and *parole*. Consider the following Figure 2.

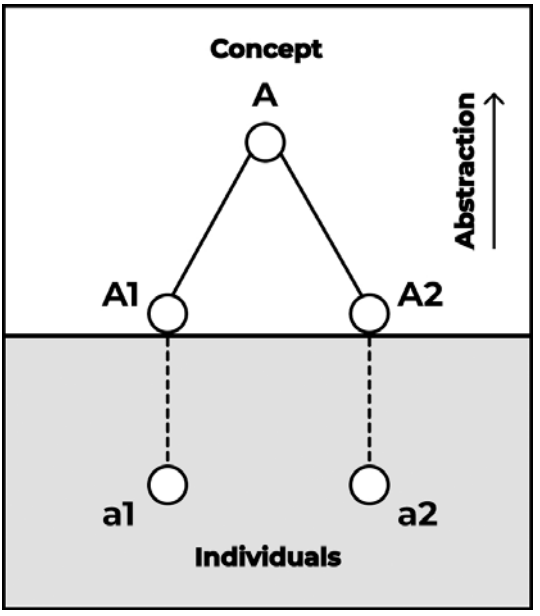


Figure 1. The relations between individuals a1/a2, individual concepts A1/A2, and a general concept A.

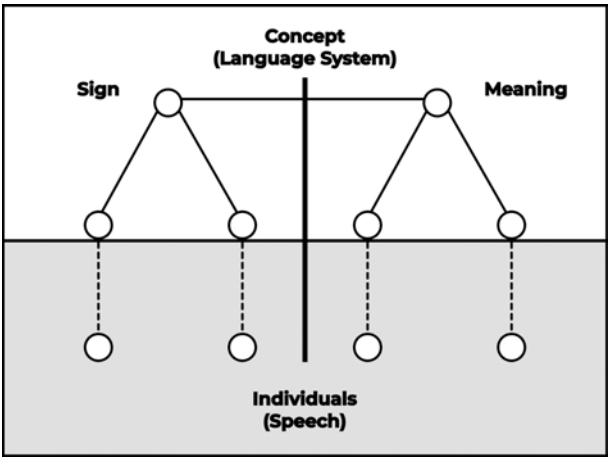


Figure 2. Wüster's tetradic word model.

© 2022 V&R unipress | Brill Deutschland GmbH
ISBN Print: 9783847114529– ISBN E-Book: 9783847014522

The upper part of the scheme illustrates an excerpt from the language system (Saussurean *langue*) and is composed of concepts (Wüster 1991: 78).[13] In this regard, Wüster (1991) treats both the sign ("Zeichen") and the meaning ("Bedeutung") as (general) concepts. Wüster (1969: 4) argues that although signs constitute components of the language system and occupy a place in models such as the semiotic triangle, they are not perceived as concepts there.[14] Wüster (1991: 77) claims that what follows from de Saussure's and von Trubetzkoy's findings shows that the left corner of Ogden and Richards' semantic triangle needs to be further divided into two parts, because linguists already differentiate between a phoneme ("Phonem") (occurring in langue) and its phonetic realisations ("Sprechlaute") (occurring in parole). Furthermore, Wüster (1991: 7) continues to explain that the phoneme – and correspondingly the grapheme – are concepts realised further down the scheme in *parole* by allophones ("Allophone") and allographs ("Allographe").[15] These individual objects appear in actual individual utterances.[16] Wüster (1991: 78) maintains that the lower half of the scheme ("Reich des Sprechens") points to individual objects ("Individuen" / "individuelle Gegenstände") and corresponds to Saussurean *parole* ("Sprechen", 'speech'). Note that though conflated by Wüster (1991: 77) with *parole*, simultaneously the lower half of the model is also believed by him to constitute extralinguistic reality ("außersprachliche Wirklichkeit").[17] The elements' of Wüster's tetradic word model may be accounted for in the following manner:

a_1, a_2, …	individual object ("Individuum" / "individueller Gegenstand"); a representative of (general) concept A; a referent
A_1, A_2	individual concept ("Individualbegriff")
A	(general) concept ("Allgemeinbegriff")
B	(general) concept of a linguistic sign in the form of a phonetic or graphic sign; a phoneme or a grapheme
B_1, B_2	individual concepts of a phonetic or graphic form

13 Consider Wüster's (1959/60:188) original passage: "[d]ie beiden oberen [Felder] entsprechen der Welt der Begriffe; sie stellen einen Ausschnitt aus dem Sprachsystem (langue) dar".

14 The original German text reads as follows: "[b]ei dem älteren dreiteiligen Modell war nicht berücksichtigt, daß auch die Zeichen, als Bestandteile des Sprachsystems betrachtet […] Begriffe sind" (Wüster 1969: 4).

15 Consider Wüster's (1991: 77) original wording: "[a]us den Erkenntnissen von Ferdinand de Saussure und von Trubetzkoy folgt nämlich, dass die linke Ecke des Dreiecks aufgeschnitten und in zwei Punkte zerlegt werden muss, weil heute zwischen Sprachlaut oder Phonem und dem Sprechlaut oder Allophon andererseits unterschieden wird. […] Das Phonem ist ein Begriff, der Sprechlaut dagegen ist eine von den unbegrenzt vielen fallweisen Realisierungen dieses Begriffes".

16 In the original German text Wüster (1959/60:188) claims that: "[d]ie beiden unteren Felder entsprechen der Welt der Individuen; sie treten erst beim Sprechen (parole) in Erscheinung".

17 In the original German text Wüster (1991: 77) maintains that: "[d]ie untere Hälfte des Vierecks ist die außersprachliche Wirklichkeit".

© 2022 V&R unipress | Brill Deutschland GmbH
ISBN Print: 9783847114529– ISBN E-Book: 9783847014522

b_1, b_2, … phonetic or written forms; allophones or allographs; realisations of (general) concept B

The "Reich der Begriffe" ('the realm of concepts') – i. e. the upper field – operates in Wüster's (1991: 77) opinion as the intermediary linguistic world ("sprachliche Zwischenwelt"). Wüster (1991) provides no further explanation for his concept of the inter-world, nevertheless the idea may be argued to derive from Weisgerber's (1955; 1963) "sprachliche Zwischenwelt". This is owing to the fact that in his works, Wüster (1959/60: 270, 274, 278, 280) frequently draws from Weisgerber's (1955; 1963) assumptions concerning his notion of the *wording of the world* ("Worten der Welt").

Apart from the issue of onomasiology and the nature of concept, which is multifaceted in Wüster's opinion, in his theoretical assumptions Wüster devotes special attention to polysemy, synonymy and homonymy in specialist settings. In order to outline the place they occupy in terminology, Wüster (1991: 87) decides to cast them within the framework of mathematics. In his own words:

> [w]ithin the realm of terminology, the permanent linguistic arrangement is required to be – in mathematical terms – *bijective*, i. e. one term is assigned to one concept only and the other way round. […] Thus, to one concept neither ambiguous (homonymous and polysemous) nor multiple terms (synonyms) should be assigned (Wüster 1991: 87).[18]

Wüster (1991: 87) acknowledges the existence of polysemy, homonymy and synonymy in the "Soll-Norm", and inclines towards unambiguousness rather than the unachievable mathematical *bijection* ("Eineindeutigkeit"). By way of the term "bijection", Wüster (1991: 87) refers to unambiguousness ("Eindeutigkeit") which is applied to describe a situation when in a given context (the sentence context or the situational context), a term has solely one effective meaning ("aktuelle Bedeutung"), even if it has more than one sense.[19] Therefore, Wüster's (1991) use of the term *bijection* refers to a two-way one-to-one correspondence of terms and concepts. Wüster (1991: 87) emphasises that such a correspondence is assumed at a particular point in time, mostly with regard to the present time

18 Wüster's (1991: 87) original German passage reads as follows: "[v]on der bleibenden sprachlichen Zuordnung ist in der Terminologie zu verlangen, daß sie, um einen Ausdruck aus der Mathematik zu gebrauchen, eineindeutig ist. D. h., daß grundsätzlich jedem Begriff nur eine einzige Benennung zugeordnet ist, und umgekehrt. […] Es sollte also weder mehrdeutige Benennungen (Homonyme und Polyseme), noch Mehrfachbenennungen für einen Begriff (Synonyme) geben".

19 In the original German text, Wüster (1991: 90) maintains that: "[e]ine eindeutige Benennung im engeren Sinne ist eine solche, die in einem gegebenen Sprachzusammenhang nur eine einzige aktuelle Bedeutung hat, obwohl sie vielleicht mehrsinnig ist. Unter Sprechzusammenhang ist entweder der Satzzusammenhang oder die durch die Umstände gegebene Sprechlage zu verstehen".

© 2022 V&R unipress | Brill Deutschland GmbH
ISBN Print: 9783847114529– ISBN E-Book: 9783847014522

("synchronische Sprachbetrachung", 'synchronic view of language').[20] Wüster's (1991: 87) choice of words ("ist… zu verlangen", 'is required to') is a prescriptive attitude which is, however, less strict in subsequent passages:

> [a]lso in terminology, the requirement for total bijection must remain a pious wish. This follows from the fact that the *number of concepts* within one discipline is approximately *a thousand times* bigger than the *number of word stems* (Wüster 1991: 87 – Wüster's own translation).[21]

Wüster (1991) illustrates his idea of the unachievable one-to-one correspondence (and simultaneously the acceptable monosemic one-to-many or mononymic many-to-one unambiguousness) with the words *Wagen* ('car', 'cart', 'carriage' etc.) and *Kraftwagen* ('motor vehicle' / 'car'). He claims that while speaking of refuelling a *Wagen*, or of its speed in general, the context of speech ("Sprechzusammenhang") disambiguates the meaning in the same manner as the component *Kraft* in the compound *Kraftwagen.*[22] Wüster (1991: 90) concludes his thought prescriptively by maintaining that "terms should be *unambiguous*; however, they do not need to be *monosemous* at all".[23]

Furthermore, Wüster (1991) also accepts polysemy in the *Ist-Norm* and uses an example of a German term *Äther*, which has four meanings:

(1) ether: 'clear sky' ('reine Himmelsluft'),
(2) ether: substance that fills the space ('Feinstoff, der den Raum füllt'),
(3) anhydride of an alcohol ('Anhydrid eines Alkohols'),
(4) diethyl ether ('Äthyläther' $(C_2H_5)_2O$).

Wüster (1991) maintains that (1) and (2) cannot be confused with each other or with (3) and (4), whereas (3) and (4) can be confused easily. He continues that the term *Äther* is polysemous ("viersinnig", 'has four meanings'), and ambiguous ("zweideutig") with regard to senses (3) and (4). However, with regard to intradomain polysemous terms, an interpretation may be ventured that they may not be disambiguated by means of context (either the sentence or situational one),

20 In the original German text, Wüster (1991: 87) claims that: "[d]as ist für einen bestimmten Zeitpunkt, meist für die Gegenwart (*synchronische Sprachbetrachtung*), gemeint".

21 Wüster's (1991: 87) original German passage reads as follows: "[a]uch in der Terminologie muß das Verlangen nach vollständiger Eineindeutigkeit ein frommer Wunsch bleiben. Das folgt allein schon aus der Tatsache, daß die *Zahl der Begriffe* eines Fachgebietes schätzungsweise *tausendmal* so groß ist wie die *Zahl der Wortstämme*" (Wüster 1991: 87).

22 Wüster's (1991: 90) original German argumentation reads as follows: "[d]er Sprechzusammenhang bewirkt Eindeutigkeit auf dieselbe Art, wie das Unterglied einer Verbindung von Wortelementen die Verbindung eindeutig macht. Wenn z. B. vom Auftanken oder von der Schnelligkeit eines Wagens die Rede ist, so wird dadurch der Begriff Wagen genau so eingeschränkt, wie wenn ausdrücklich die Zusammensetzung Kraftwagenverwendet wird".

23 In the original German text, Wüster (1991: 90) maintains that: "[d]ie Benennungen sollen *eindeutig* sein, brauchen aber keineswegs *einsinnig* zu sein".

© 2022 V&R unipress | Brill Deutschland GmbH
ISBN Print: 9783847114529– ISBN E-Book: 9783847014522