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Kontaktdaten/Contact: Wilhelm Braumüller Universitäts-Verlagsbuchhandlung Ges.m.b.H.,
Servitengasse 5, A-1090 Wien. www.fachsprache.net
Tel.: (++43 1) 319 11 59-18, Fax: (++43 1) 310 28 05, E-mail: e.reisenhofer@braumueller.at
Herausgeber/Editors: Univ.-Prof. Dr. Susanne Göpferich (susanne.goepferich@uni-graz.at),
Prof. Dr. Jan Engberg (je@asb.dk), Prof. Dr. Nina Janich (janich@linglit.tu-darmstadt.de)
Redaktion/Editorial Secretary: Mag. Dr. Mitar Pitzek (fachsprache@braumueller.at)
Bestellung/Orders: bestellung@braumueller.at
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Vorwort

Wie im Editorial des letzten Heftes angekündigt, sollen in Zukunft „normale“ Ausgaben von *FACHSPRACHE* mit Themenheften wechseln. Dieses zweite Heft, für das wir als neues Herausgeber-Team verantwortlich zeichnen, ist ein solches und präsentiert Beiträge der englischsprachigen Tagung „Methodological Issues in Economic and Business Terminology“, die im November 2008 an der Wirtschaftsuniversität in Wien stattgefunden hat. Den Veranstaltern der Tagung, Prof. Dr. Franz Rainer und Dr. Elisabeth Peters, sei an dieser Stelle sehr herzlich für die Übernahme der Herausgeberschaft dieser Beiträge gedankt.

Susanne Göpferich, Nina Janich, Jan Engberg

Preface

As indicated in the previous issue editorial, future issues of *FACHSPRACHE* will alternate between standard issues and special issues focused around a topic. The current issue offers an example of a special issue presenting selected contributions from the conference "Methodological Issues in Economic and Business Terminology" held in November 2008 at the WU Vienna University of Economics and Business. We would like to thank the organizers of the conference, Prof. Dr. Franz Rainer and Dr. Elisabeth Peters, for their thoughtful work as special issue editors.

Susanne Göpferich, Nina Janich, Jan Engberg

Editorial

On November 29–30, 2008 the first WU Symposium on International Business Communication took place at WU Vienna , dedicated to "Methodological issues in economic and business terminology". The present issue of *FACHSPRACHE* contains four papers selected from the 17 given at the symposium.

The label "economic and business terminology" had purposefully been interpreted in the broadest possible sense, including neighbouring fields such as sociology, politics or law as long as the focus was on topics relevant for economics or business. This generous conception is also reflected in the four papers presented here, which cover subject areas as diverse as sociology, law, marketing, and developmental policy. In view of this broad coverage, it seemed preferable to drop in the title of the present issue the reference given to economics and business, referring instead more generally to "terminology research".

However divergent the four contributions may be with regard to the targeted subject areas, they form a highly homogeneous collection from a linguistic point of view. In accordance with the central theme of our symposium, in fact, they all focus on methodological issues of terminology research. The four papers can naturally be divided into two subgroups, one concentrating on the nature of meaning of terms (or more generally, words), while the other group focuses on the relevance of diachrony for the synchronic study of terminologies and the help one can get in this respect from corpus linguistics.

The nature of meaning is notoriously a highly elusive subject which has kept busy an army of philosophers and linguists from the dawn of Western philosophy up to the present day. Therefore, it wouldn't be surprising if the announcement that the first contribution of the present issue contained a new theory of meaning were met with skepticism by some readers. Nevertheless, we think that the opening article by Martin Hummel warrants careful attention by all students of terminology. Hummel's proposal reflects a truely oecumenic spirit, apt to reconcile to some degree scholars as diverse as Structural Field Theorists and Cognitive Semanticists. The author believes that meanings are clear-cut in the intention of the speaker (a referee has a neat meaning of *offside*, though he may hesitate whether a particular situation qualifies as such or not), and that Prototype Theorists consequently are misguided when they want to import the fuzziness of reality into semantics. He also believes in core meaning, as opposed to encyclopedic meaning, but the difference is said to be gradual, contrary to what Structural Semanticists have claimed. Nevertheless, these clear-cut core meanings are internally complex entities, according to the author, consisting of at least three dimensions: a morphosemantic dimension (e.g. 'one who works' in the case of *worker*), obviously restricted to morphologically complex words or figuratively used words, a paradigmatic dimension (along the lines of Semantic Field Theory, but practiced in a less dogmatic manner), as well as a referential dimension (representing the thing meant, for example the imagistic representation that we have of a rose). As Hummel convincingly demonstrates, all three dimensions may, to varying degrees, be relevant in the description of a single term or word. Terms, by the way, are claimed not to differ from ordinary words in principle, though some dimensions may turn out to be more relevant in terminologies than in non-specialised registers.

In the second article on terminology and meaning, Jan Engberg starts out from a Wittgensteinian conception of meaning, which leads him to focus on the relationship between individual and collective use of terms. Recall that for Wittgenstein the meaning of a word is the set of rules or conventions which determine the word's use in a particular speech community. Consequently, a sound description of meaning, according to the Austrian philosopher, should start out with an accurate description of how speakers really use the word in question ("Denk nicht, sondern schau!"). And this is exactly what Engberg undertakes with the example of the legal term *(criminal) liability of corporations* in US law. Abstracting, for the sake of simplicity and manageability, from differences in legislation and court decisions at the state level in the US, the author applies the deductive approach elaborated by Klaus-Peter Konerding to nine texts on the subject of (criminal) liability of corporations. This approach consists in reconstructing the cognitive landscape associated with a term by extracting relevant passages from texts, guided by a list of questions which Konerding has elaborated for each of his "matrix frames" (State, in our example). By this procedure, Engberg identifies 15 different "knowledge elements" and then assembles these knowledge elements in a hierarchichal structure according to the logical relations obtaining between them. As the author shows, the term *(criminal) liability of corporations* is still unstable in the sense that judges, lawyers and law professors do not yet agree about the exact conditions under which corporations should be considered liable, or even whether they should be considered such at all. This is therefore a case where the meaning of a term is still negotiated in society, or more specifically among experts. Contrary to Hummel's example of *offside*, where the meaning was said to be clear-cut even though the application in concrete situations may not be straightforward, in the present case the impression of "fuzziness of meaning" is, in the first place, a consequence of the coexistence of several proposals concerning the exact definition of the concept. Individual proposals may be as sharply delimited as the notion 'offside', but taken together the proposals form a fuzzy set at the level of the speech community.

The other two papers, as we have already said, share both a diachronic and a corpus-linguistic approach. The diachronic dimension, to be sure, is rather shallow in both cases, since the terminologies considered – that of developmental policy of the EEC/EU in the case of Judith Kast-Aigner and that of marketing in French in the case of Regina Göke – were essentially elaborated in the second half of the 20th century. But it is precisely this limited time-depth which warrants the claim of both authors regarding the relevance of diachrony even for the synchronic description of terminologies: Terminological usages attributable to different chronological layers necessarily coexist at a certain moment, in a kind of "Gleichzeitigkeit des Ungleichzeitigen", to borrow a formula from the philosopher Ernst Bloch. That speakers are perfectly aware of the coexistence at a certain point in time of usages pertaining to different chronological layers is proved by the relatively high frequency of metalinguistic observations alluding to the chronology or synchronic validity of terms. Examples could be piled up indefinitely. Here are some for illustrative purposes, culled from the Internet:

– "'Post-modern' is an *obsolete* term."
– "Perestroika's premise was not destruction of 'real socialism', *as we used to call it.*"
– "Mr. Lévi-Strauss [...] transformed the West's understanding of *what was once called* 'primitive man.'"
– "Geomorphology, or 'physiography' *as it was called fifty years ago* [...]."
– "I don't think suspension, or 'exclusion' *as young people call it these days*, is a punishment.", etc.

This "chronological awareness" of speakers goes far beyond what dictionaries would have us believe. Diachrony – at least the latest stages thereof – is part and parcel of synchrony.

Both papers tackle this problem by dividing their electronic corpus into chronological layers (arbitrary five-year periods in the case of Göke, according to the different EEC/EU treaties on international cooperation in the case of Kast-Aigner). By comparing the use of single terms at different points in time, the authors are able to follow their evolution quite closely, both from a quantitative and a qualitative perspective. On the one hand, they show how certain terms spread and become established, or recede and disappear, while on the other the detailed analysis of the contexts also allows them to describe semantic changes undergone by single terms in this short strech of time. Another interesting aspect of both studies is that they try to link these quantitative and qualitative changes to the general evolution of the respective fields, marketing and developmental policy. It turns out, unsurprisingly, that the changes observed can be intimately tied to the evolution of the relevant field: The history of the terminology reflects the history of the field. But at the same time, the results of terminological studies could certainly also be helful for students or practitioners in the respective fields who want to gain a clearer picture of the way they speak, as well as the history of their discipline.

Franz Rainer & Elisabeth Peters

Semantics, terminology, and the impact of history and culture on socioeconomic terms

Martin Hummel

Abstract The paper discusses the main issues of terminological semantics from a general lexicological point of view. It will be argued that words are not fuzzy, as generally assumed, but clear-cut – in the sense that there must be cognitive effort to perceive word meanings and the objects referred to as clearly different from other words and objects. We assume that the basic principles of this idealistic concept of *meaning* also hold for terminology. Therefore it has important consequences for terminological efforts like naming, taxonomy and classification, as well as for methodological reflections about how to approach them. The argumentation will be supported by the analysis of the French socioeconomic words and terms *employé* and *cadre* which are used in both common speech and terminology. A tridimensional model of meaning is suggested in order to give account of lexical characteristics, context relevance and translation. In this perspective, the concept of *core meaning* turns out to be a rather complex phenomenon.

Keywords French, semantics, terminology, nomenclature, socioeconomic terms, language and culture, translation, core meaning, prototypicality, fuzziness of meaning, taxonomy

As pointed out by the French terminologist Depecker (2003: 18), the relationship between linguistics and terminology is still a matter of interest, especially because linguists rarely deal with terminology. The present contribution shall approach this topic from a linguistic point of view.

1 Fuzzyness of meaning?

Fuzziness of meaning is a general assumption of common opinion and numerous authors, especially since Prototype Semantics has based its theory on the refutation of feature semantics which postulates invariable semantic features (*cf.* Fillmore 1975), a tradition followed by Cognitive Semantics (*cf.* Hummel 2009). Nevertheless, this assumption can be falsified easily for linguistic approaches. As already pointed out by Coseriu (2000: 34) and Hummel (1993a, 1994), in the extralinguistic world we observe indeed gradation or fuzziness between "day" and "night" or "thick" and "thin", but each time a speaker uses the words *day* or *thin* to refer to extralinguistic reality, the gradience stops to exist, since *day* and *thin* clearly express the speaker's view. The same holds for *offside* in football: the situation on the field may be fuzzy, but the referee's decision will be clear-cut, even sometimes too clear-cut with regard to the extralinguistic reality. The obvious conclusion is that language is clearer than objective extralinguistic reality would allow it to be. This is again confirmed by morphological evidence. The evidence that language creates clearly separated words like *day* and *night* shows that words are a part of a mental effort to separate two categories despite the fact that the extralinguistic fuzziness would not allow us to do so. In this sense, semantic theory has to be idealistic in order to fulfill the speaker's idealistic presupposition of conceptual separateness. This does not imply a drift back to the check list of invariable features. But it obliges us to assume that there is a cognitive effort to make meanings clear-cut and separable. This cognitive effort necessarily leads to a sort of core meaning which emerges from the complex networks of (extralinguistic) knowledge. The fact that words are not only deposits of knowledge, as emphasized by Cognitive Linguistics, but also instruments for communication, reinforces this tendency, since shared core meanings improve good and fast understanding. So the linguistic key word of *function* enters also in the nature of meaning (Hummel 2009).

Of course, our argumentation is lexicological in nature. It only concerns the fundamental relationship between single words and extralinguistic reality. In real communication, texts and discourse may try to describe the extralinguistic fuzziness as such or use hedges. The referee of a football game is obliged to decide clearly, but the spectators of the same match may consider the situation a borderline case and express their view with appropriate words. The referee's role matches to our lexicological perspective in the sense that his activity is restricted to the binary choice of 'saying' *offside* or not.

In the functional perspective, the first function of a word is to identify the thing meant, and only secondarily to activate huger parts of the cognitive networks surrounding its core meaning. Identification is realized by core features of meaning. This ensures also the fastness of communication. Therefore, the definition must concentrate on the referential power of meaning. This applies especially for terminology, since definitional economy (shortness) is not only a naturally inherent feature of language but also a voluntary requirement for special languages (Felber/Budin 1989: 62) which focuses terms isolated from syntax (Wüster 1991: 2). Both linguistic function and cognitive necessity contribute to what I call "cognitive sharpening" of concepts and, thus, core meaning (Hummel in print).

Note that the mental prototype is not the only cognitive response to extralinguistic fuzziness, nor family resemblance (Kleiber 1998), since the goodness of membership effect observed by Rosch (1977, 1978) also holds for abstract definitions. Try to apply clear logic definitions like those of *offside* in football or *polysemy* in linguistics to the relevant extralinguistic reality and you will observe the same effect of goodness of membership than for *fish, bird, apple,* etc., whose meaning seems to be largely prototypical (Hummel in print). Consequently, the range of possible elements for core meaning is rather large, including the possibility of invariable semantic features. Of course, a check list will not give an account of the complex relationships between features, as the exact relations are eliminated by simply listing the features. In this sense, definitions are better because they try to point out explicitly the exact relations of the features. This does not mean, of course, that definition is the best or unique way to describe meaning (*cf.* chapter 4).

2 Fuzziness and terminology

We have seen that clearly and logically defined terms like *offside* or *polysemy* follow the same general principles as common words. On the one hand they are categorically clear-cut, on the other hand, extralinguistic fuzziness causes the same effects of goodness of membership like common words with prototypical meaning. This is the reason why extralinguistic "clearcutness" cannot be a general criterion for terminology: A term is not a good term if it allows us to attribute objects to the term ('membership', 'name'), but if concept and morphology correspond best to its function, which has to be defined first. *Polysemy* and *monosemy* in linguistics, for instance, do not allow to separate all the phenomena concerned in two distinct classes, but they do permit us to discuss all the relevant problems. This means they are good terms. Of course, *polysemy* and *monosemy* are terms whose concepts are meant to discover and describe linguistic reality rather than to name or classify its phenomena.

In his analysis of 'linguistic' fuzziness, Labov (1978: 220) assumed wrongly that the main linguistic activity consists in "setting up rules for assigning memberships" to linguistic categories. In reality, speakers usually do not assign membership of objects to linguistic categories, since we do not divide definitively all persons in thin and thick ones, but rather call a person *thick*. In this case, the validity of the 'membership' in the linguistic category *thick* is limited to a single utterance and the subjective point of view of one speaker. In other words, we do not assign membership or classify, but *designate* in utterance. Designation is subjective. But note that subjectivity is not a matter of the linguistic category itself, since the category is intersubjective (social) in nature. The subjectivity of designation is due to the speaker's choice of the category. Choosing *thin* instead of *thick* causes the subjectivity of thin in a given utterance. We all know persons who like to declare themselves as *thick*, even if almost all the others perceive them as rather thin. Still, everybody understands the person saying *I am thick*. This is only possible because the meaning of *thick* is intersubjectively fixed. If the hearers' view of the extralinguistic reality would determine their interpretation of *thick*, they would have to interpret the meaning of *thick* as 'thin', which is not the case. The hearers need not share the speaker's opinion, but they understand what the speaker means, as well as they understand the referee's decision of off side, even if they do not agree with him. The only difference from common language is the fact that the referee classifies the game situation definitively as off side and thus assigns membership, like the judge in Aitchison's (1990: 58) example of *mad* and *bad*. This difference, however, is not linguistic in nature, since it is the social authority conferred to the referee or the judge which turns the designation into a definitive classification, which is a first point to keep in mind for the analysis of official terminologies.

When we say *terminology*, our prototypical representation of this concept makes us think rather of terms whose function it is to name things (Depecker 2003: 17, 20) than of theoretical concepts like *polysemy*, *structure*, *system*, etc., which are discovering concepts. If a term is meant to be a name, then of course the problem of assigning membership arises, like in the judge's or referee's decision. The notion of *name* implies the assumption that there are objects to be named (*cf.* Rey 1979: 21–22). But what is an object when there is fuzziness? The general fact of extralinguistic fuzziness strongly contradicts the terminological assumption that concepts contain the shared features of the members of an extralinguistic class of objects (*cf.* synopsis in Arntz/Picht/Mayer 2009: 43–46) and that concepts can be determined empirically by abstraction from classes of objects. De Bessé's (1997: 64) assumption that terminography is onomasiological in nature, whereas lexicography is semasiological, cannot be applied to descriptive terminology. In fact it is not possible to separate *concept* from *object* (*cf.* Felber/Budin 1989: 62–63). The very nature of concepts has to be intensional (idealistic). And even the extralinguistic objects we believe to exist and we refer to by words are mentally codetermined when they emerge from fuzziness, like *day* and *night*. It is true that terminology implies a stronger effort to delimitate objects and classes referentially related to terms, but it is also true that the undertaking is a mere effort of normalization which will never be completely successful, except perhaps for some very artificial classes of objects, since there also exist efforts of extralinguistic normalization, e.g. industrial norms. The exactness of terminology depends on the exactness of the special world a term refers to.

In theory, categorical fuzziness need not appear in artificial worlds, since we can create delimited classes of objects, e.g. in mathematics. Theoretically, the world of human inventions, machines and other things would thus offer the same possibility. However, even technical inventions usually undergo diversification processes, especially in diachrony, since a radio today is not the same as a radio some hundred years ago. Hence the fuzziness problem will be almost the same in special language as in common language.

In the case of social sciences (*cf.* Wright 1997: 18–19), descriptive terminology has to deal with almost the same vagueness or diversity of concepts as common language. The French common words *ouvrier* 'blue collar worker', *employé* 'white collar worker' and *cadre* 'executive' are also used in national statistics in order to classify the complete population of France in socio-professional groups (*cf.* Table 1, taken from *Code* 1977). Like in the case of the referee's or judge's decision, the classification of each inhabitant of France is definitive and valid within the social authority concerned with national statistics, which means: It is not limited to utterance, but to a whole specialized domain (*cf.* Engberg 2008: 260–266). This is what we generally find or what terminology tries to establish for special languages. According to the general fuzziness assumption for extralinguistic reality, and despite of using clear official rules for the attribution of each profession to overall categories, the fuzziness appears in certain categories which, apparently, serve to classify "the rest". In the case of social statistics, some of these categories became quite famous because of their heterogeneity, e.g. category 99 "autres personnes non actives": "capitaliste, idiot, imbécile, propriétaire foncier, prostituée" (Desrosières 1976: 227, Hummel 1993a).

Table 1: Nomenclature of socio-professional categories

NOMENCLATURE DES CATÉGORIES SOCIOPROFESSIONNELLES
CORRESPONDANCE ENTRE LES NIVEAUX 8, 24 ET 42

Niveau agrégé (8 postes dont 6 pour les actifs occupés)	Niveau de publication courante (24 postes dont 19 pour les actifs)	Niveau détaillé (42 postes dont 32 pour les actifs)
1 Agriculteurs exploitants	10 Agriculteurs exploitants	11 Agriculteurs sur petite exploitation 12 Agriculteurs sur moyenne exploitation 13 Agriculteurs sur grande exploitation
2 Artisans, commerçants, et chefs d´entreprise	21 Artisans 22 Commerçants et assimilés 23 Chefs d´entreprise de 10 salariés ou plus	21 Artisans 22 Commerçants et assimilés 23 Chefs d´entreprise de 10 salariés ou plus
3 Cadres et professions intellectuelles superiéures	31 Professions libérales 32 Cadres de le Fonction publique, professions intellectuelles et artistiques 36 Cadres d´entreprise	31 Professions libérales 33 Cadres de la Fonction publique 34 Professeurs, professions scientifiques 35 Professions de l´information, des arts et des spectacles 37 Cadres administratifs et commerciaux d´entreprise 38 Ingénieurs et cadres techniques d´entreprise

4 Professions intermédiaires	41 Professions intermédiaires de l´enseignement, de la santé, de la Fonction publique et assimilés 46 Professions intermédiaires administratives et commerciales des entreprises 47 Techniciens 48 Contremaîtres, agents de maîtrise	42 Instituteurs et assimilés 43 Professions intermédiaires de la santé et du travail social 44 Clergé, religieux 45 Professions intermédiaires administratives de la Fonction publique 46 Professions intermédiaires administratives et commerciales des entreprises 47 Techniciens 48 Contremaîtres, agents de maîtrise
5 Employés	51 Employés de la Fonction publique 54 Employés administratifs d´entreprise 55 Employés de commerce 56 Personnels des services directs aux particuliers	52 Employés civils et agents de service de la Fonction publique 53 Policiers et militaires 54 Employés administratifs d´entreprise 55 Employés de commerce 56 Personnels des services directs aux particuliers
6 Ouvriers	61 Ouvriers qualifiés 66 Ouvriers non qualifiés 69 Ouvriers agricoles	62 Ouvriers qualifiés de type industriel 63 Ouvriers qualifiés de type artisanal 64 Chauffeurs 65 Ouvriers qualifiés de la manutention, du magasinage et du transport 67 Ouvriers non qualifiés de type industriel 68 Ouvrier non qualifiés de type artisanal 69 Ouvriers agricoles
7 Retraités	71 Anciens agriculteurs exploitants 72 Anciens artisans, commerçants, chefs d´entreprise 73 Anciens cadres et professions intermédiaires 76 Anciens employés et ouvriers	71 Anciens agriculteurs exploitants 72 Anciens artisans, commerçants, chefs d´entreprise 74 Anciens cadres 75 Anciennes professions intermédiaires 77 Anciens employés 78 Anciens ouvriers
8 Autres personnes sans activité professionnelle	81 Chômeurs n´ayant jamais travaillé 82 Inactifs divers (autres que retraités)	81 Chômeurs n´ayant jamais travaillé 83 Militaires du contingent 84 Etudiants, élèves de 15 ans et plus 85 Personnes diverses sans activité professionnelle de moins de 60 ans (sauf retraités) 86 Personnes diverses sans activité professionnelle de 60 ans et plus (sauf retraités)

3 Encyclopedic knowledge and linguistic meaning

In spite of the functional relevance of core meaning, knowledge of the world is necessary to understand a text. This is the reason why Cognitive Linguistics considers words as instruments to accede to 'powerful' networks of mentally related knowledge. And this is also the reason why there has been a turn in linguistics of special languages from word based *terminology* to text based analysis of specialized discourse. We only understand a specialized book on biology if we have a specialized knowledge. Similarly, translation only concerns the concrete use of signs in communication (text, discourse) (Albrecht 1989: 270, Gerzymisch-Arbogast 1996: 15–16). Translation requires knowledge of a whole special language, not only of isolated words (Albrecht 1989: 272). However, this point of view must not replace the terminological one, since the words of a text are previously fixed lexical units which are specifically adapted to a text. Schaeder (1994: 18) argues that the communicational or pragmatic turn in terminology focusing on specialized communication (texts) must not withdraw the attention from lexical terminology. Successful terminological effort facilitates the translation of terms by creating standardized norms and even translational equivalents (Arntz/Picht 1982: 140–142). In consequence, the text-based and the word-based perspectives are complementary. The main problem is not the irrelevance of the general lexicological or the corresponding special terminological point of view, but the tendency of general semantics to develop models which do not allow to describe exactly what happens when a word enters a text (*cf.* chapter 5 and 6, *cf.* Engberg 2008: 262). In the case of culturally specific terms like *cadre* or *employé*, a bilingual dictionary has to add explanatory encyclopedic knowledge in order to make the situation accessible to the translator, a process which is quite similar to the task of helping the translator to understand a scientific term, when the correct scientific definition cannot be understood without adaptation by non-scientists (Göpferich 1999: 87–88).

In Cognitive Linguistics, terms like *frame* and *script* related to a word are almost adequate linguistic ways to describe text-relevant knowledge of the world from a lexicological point of view. In special languages, the knowledge of the specific world seems to be even more important, since specialized dictionaries will be used to understand texts referring to things and worlds which differ considerably from commonly experienced worlds (Wiegand 1994, Bergenholtz 1994: 52–53, De Bessé 1997: 66). This is the reason why the definition of a specialized term goes hand in hand with specialized knowledge related to the thing meant (encyclopedic knowledge). The notions of *frame* and *script* are too rough for this purpose, since detailed knowledge of the structure and function of objects is required. Nevertheless, there is no fundamental difference in nature between common linguistic signs and terms, as wrongly claimed by Rey (1979: 18), since each time we learn a new common word we also need encyclopedic information. We cannot learn a word like *computer* without learning something about the object concerned. In this sense, specialized language differs only by the profundity of knowledge from common language.

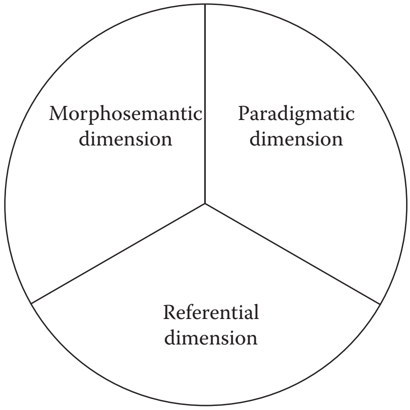
Of course, no clear-cut distinction between core meaning and encyclopedic knowledge is possible. From a theoretical point of view, the structural tradition to separate intralinguistic meaning and extralinguistic encyclopedic information is misleading or misinterpreted. In fact, some linguists and terminologists tend to interpret this approach in a very material sense, as if linguistic features were something else in nature than encyclopedic features. Geckeler (1982: 216–217) and other structural semanticists, for instance, argued against Pottier's famous feature analysis of the lexical field of seats in French that semantic features like 'four legs' or 'back' were extralinguistic in nature and could therefore not be accepted as semantic features of the linguistic system. This analysis is completely wrong. If this was true, no concrete object could be designated by a meaningful word. Actually, what language does when it creates meaning is to take into account selectively certain extralinguistic features. This process might be called in German *Versprachlichung,* 'languaging' (*cf.* Hummel 2009). In this sense, the structural assumption of intra-linguistic features is right. They do not differ in nature from other features of our knowledge, but only by their function in linguistic communication, for instance, if a word presupposes a feature for designation. In other words, when a meaning presupposes the feature 'four legs' in the referential process, then the extralinguistic feature "four legs" has been integrated cognitively as semantic feature in our mental concept. This way, the concept has a mental reality on its own right. Accordingly we can accept the Saussurian point of view that language (and of course meaning) is different from the extralinguistic world. This implies that, vice versa, linguistics cannot exclude the notion of *object* from its discourse (*cf.* Depecker 2003: 22–23). Of course, the integration of features in meaning is a gradual process. Some features may be obligatory, but others will be relevant in a statistical sense. Note that this cognitive effort of *Versprachlichung* is identical in nature with the effort of cognitive conceptual sharpening described in Section 1. In the social sciences, where artificially created new terms are often increasingly used in common language, and common language words are used for specialized purposes (Ihle-Schmidt 1983: 217), at least some of the core features will be shared by both, the term and the common word.

4 The three dimensions of lexical meaning

Semantic theories tend to reduce the complex reality of concepts to one aspect. I do not know a single theory which proceeds to a verification with a random sample of words. The common 'method' is to look for examples which illustrate the theory. From a methodological point of view, this technique is acceptable if one tries to formulate hypotheses, but inacceptable as a method of objective verification of the hypotheses. Furthermore, semantic theories usually are strongly opposed to each another, as if in other theories all was wrong. A good approach to a theoretical study like the present one seems to be to maintain what in each theory seems to hold against empirical data and serves to explain linguistic communication on both the lexical and the text level. It will be shown that this attitude is far from being eclectic but rather corresponds to linguistic reality. I assume that meanings in language are as diverse as the objects they refer to. This explains why each semantic theory finds words to which the theory applies. But how can we deal with diversity in a single coherent semantic theory? A multidimensional theory of meaning linked with the possibility of selective communicative relevance in texts appears to be a good solution.

A general theory of word meaning should display at least three main dimensions (*cf.* Schema 1): *Morphosemantic* information provided by word formation or polysemy; *paradigmatic* information on lexical oppositions to other elements of the frame a word belongs to, *referential* information in the sense of Gestalt-like mental representations of the thing meant. Every single word is characterized by a different weight of each dimension in its specific meaning. A word like *big* is characterized by a lack of morphosemantic information (besides perhaps polysemy), a predominant influence of paradigmatic information (opposition to *small*) and eventually a slight influence of prototype, which may occasionally play a role, without being predominant, since *big ant* and *small elephant* are possible collocations.

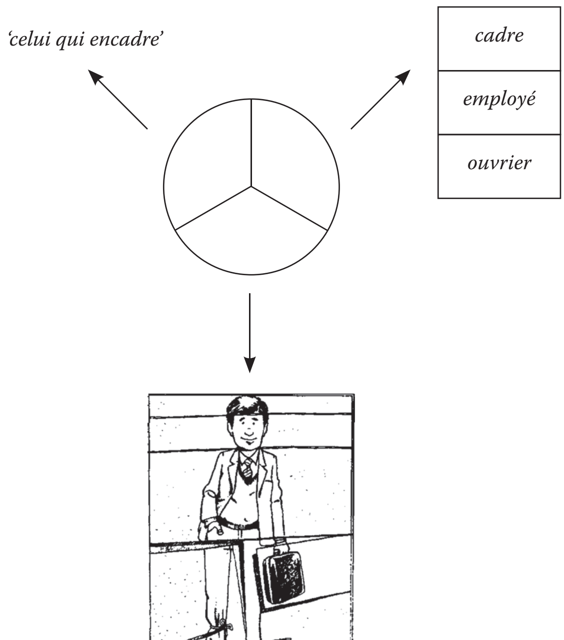
For a word like *tulip*, referential representation of the thing meant will be more important than its paradigmatic opposition to *rose*.



Schema 1: The three main dimensions of lexical meaning

5 The French common word and socio-economic term *cadre*

In the case of the French word *cadre*, used as a designation for the socio-professional group of executives, all three dimensions are important (*cf.* schema 2; empirical details in Hummel 1993a):



Schema 2: The three dimensions of "cadre"

The word *cadre* as a definition of a socio-professional group and its members is characterized by the morphosemantic information 'celui qui encadre' (= person who supervises and commands), clear and obligatory lexical oppositions to the words *employé* and *ouvrier*, and a stereotyped mental prototype. This prototype is not only a neutral mental representation of an object, but an important model of individual identification to a social group.

5.1 The morphosemantic dimension

The morphological transparency of *cadre* is not very important for its use, but the semantic feature 'le cadre est celui qui encadre' may be given special contextual relevance, especially in case of problems and doubts. During the general social crisis concerning the definition of the *cadres* as a rising social group between 1930 and 1990, a series of caricatures based on morphosemantic relations appeared, and most definitions of the social group focus on this morphosemantic feature (Hummel 1993a: 35–38, 42–48).

The selective contextual relevance of morphosemantic information is more systematic in polysemous words like F.[1] *employé*, E.[1] *worker*, G. [1] *Angestellter*, and G. *Arbeiter*. All these words have a first, morphologically motivated meaning. F. *employé* refers to all persons who are employed, and there is a further, again morphosemantically marked opposition to *employeur* 'employer'. The same holds for E. *worker* or G. *Arbeiter* in cases like *a good worker, a hard worker*. I refer to this meaning as Meaning 1.

When we ask speakers for the meaning of G. *Arbeiter* or E. *worker*, they almost never mention Meaning 1. This gives us three important insights. In lexicalized words, morphosemantic features tend to be less conscious than paradigmatic and referential features. On the other hand, speakers are able to actualize them in case of need. Furthermore, the use of the words in the broad meaning delimited by morphology seems to be a rather spontaneous process.

5.2 The paradigmatic dimension

Cadre is clearly delimited by its paradigmatic opposition to *employé* and *ouvrier*, as well as by the generic term *salarié* which comprises all three of them. Both questioning of informants and empirical analysis of context coincide in this point. From the point of view of contrastive linguistics, this paradigmatic structure differs from the one in German (*cf.* schema 3; *cf.* Hjelmslev 1971):

<table>
<tr><td>cadre</td><td rowspan="2">Angestellter</td></tr>
<tr><td>employé</td></tr>
<tr><td>ouvrier</td><td>Arbeiter</td></tr>
</table>

Schema 3: Paradigmatic contrasts between French and German

In other words, there is no equivalence at the level of lexicon between F. *cadre, employé* and G. *Angestellter* that would allow a uniform translation independent from the context (for general aspects, *cf.* Hohnhold 1983a,b,c). In the case of *employé*, the paradigmatic oppositions of *employé* to *cadre* and *ouvrier* gives rise to a second meaning (Meaning 2) that differs clearly from the morphologically determined one, 'person who is employed' (*cf.* 5.1), since this first meaning comprises also *ouvrier* and *cadre*. Thus, a different weight of the dimensions of meaning is here the basis for lexicalized polysemy. The same holds for G. *Angestellter* 'employed person' (Meaning 1), 'white collar' (Meaning 2), and also for E. *worker* 'person who works (well)' (Meaning 1), 'blue collar worker' (Meaning 2). Consequently, the different translations of these polysemous words may also be explained by contextual relevance of one semantic dimension instead of the other (*cf.* details in Hummel 1993a: 248–277).

5.3 Referential dimension and mental prototype

F. *cadre*, *employé*, and *ouvrier*, as well as E. *worker* are associated with prototypical mental representations. In the case of *employé* and *ouvrier*, only the more specific Meaning 2 is associated with a mental prototype, not the morphosemantic Meaning 1, which is notional in nature.

Of course, mental prototype is not the only way referential knowledge and experiences are condensed in word meaning. There may be further knowledge of single objects, especially when the word is considered as a designation for a class of objects, for instance the knowledge about the classification of borderline cases like "penguin" for the class of birds or "whale" for the class of fish.

5.4 Consequences

We have seen that our tridimensional view of meaning displays a rather complex insight into meaning which allows us to account for lexicological phenomena like polysemy, meaning restriction and context relevance. Furthermore, it follows that monodimensional semantic theories do not correspond to linguistic reality. Lexical field theory, for instance, considers only the paradigmatic dimension. On the other hand, prototype theory underestimates the power of morphosemantic and paradigmatic information. Both theories fail when we try to give a coherent linguistic explanation of the polysemy of words like F. *employé*, E. *worker*, G. *Angesteller* and *Arbeiter*, since their polysemy consists simply in giving a selective weight to another dimension of meaning at the level of lexicon. It is not surprising that the term *dimension* is used in recent terminological semantics (Depecker 2003: 86).

6 Contextual relevance of the three dimensions and translation

One of the main issues in semantics is invariability of meaning or, at least, invariability of core meaning. But how do we conceive *invariability* in a tridimensional model of meaning? Is there necessarily a contradiction between invariability and contextual flexibility? On the level of lexicon, all three dimensions contribute permanent features to what we call *meaning* or *concept*. At the level of utterance, however, the speaker has selective access to the dimensions of meaning when he speaks. This can be shown by context analysis and by effects on equivalence and translation. The contextual relevance of prototype appears in spontaneous synonymy of words like F. *fonctionnaire* 'civil servant' and *employé* 'white collar worker' (Hummel 1993a: 175–176). Another example are Sp.[1] *alimaña* '(small) predator' and *zorra* (Hummel 2008). In both cases, identity of prototype leads to spontaneous synonymy in spite of the clear differences in paradigmatic delimitation and, thus, referential extension. In the second case, the basic level word *zorra* is considered to be synonymous with the generic word *alimaña*. The consequences of contextual relevance of the three dimensions on translation have been briefly discussed in Section 5.2. Another example is Baldinger's (1984: 37) semantic analysis of G. *Angestellter* and F. *employé*. Baldinger considered them equivalent. This only holds for the morphosemantic dimension and mental prototype, whereas the words are clearly different with respect to the paradigmatic relations, for G. *Angestellter* includes both *employé* and *cadre*, which means that the Meaning 2 of *employé* is smaller (Hummel 1993a: 251–252). As regards spontaneous synonymy, the speaker's feeling of equivalence may be distorted/biased by a selective introspective vision of meaning. This is one of the reasons why lexicological phenomena have to be observed in objective corpora in order to counterbalance introspective biases.

7 Core meaning: invariability and flexibility

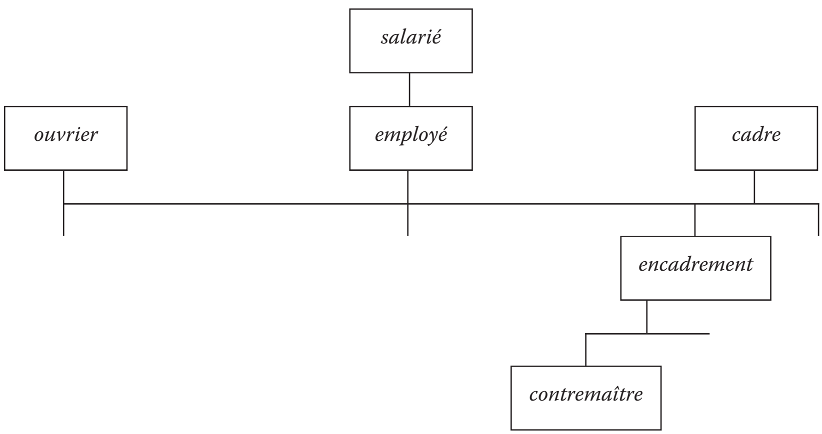
The notion of *core meaning* does not necessarily imply a reductionist view on the phenomenon of meaning. In our semantic theory, the term refers to the stable elements of several dimensions. This turns core meaning into a rather complex thing. Furthermore, this does not necessarily imply that all the components of core meaning have to be relevant in the same way, neither at the level of lexicon, since the weight of each dimension is word-specific, nor in context, because not all core elements are relevant in each context. In a certain sense, the elements represented in each dimension of *cadre* are invariable, since we can empirically prove that they belong to shared knowledge necessary for communication. This, however, does not lead, in our theory, to a static understanding of what meaning is and how it functions in communication. This tridimensional and dynamic concept of core meaning does not exclude invariable features. Langacker's (1999: 28) *profiling* process, e.g. the fact that *hypotenuse* selects always (invariably) the same line in a contiguous structure called triangle, necessarily means that the meaning of the word *hypotenuse* contains an invariable feature which serves as a condition for designation. In consequence, the exclusion of invariable features from meaning (*cf.* Section 1) is also a reductionist approach.

8 Lexicology and terminology

Let us consider now what happens when we change from common language lexicology to terminology. In general terms, terminology is characterized by artificial options executed with a high degree of consciousness. Terminology is more conscious, because the terminologist discusses openly the linking between word morphology, concept and object (*cf.* Felber/Budin 1989: 63, 69, Wüster 1991: 1–2).

The artificial options of terminology tend to reduce the complex tridimensional semantic configuration we may call *concept* to a *definition* (*cf.* Depecker 2003: 17) which contains basically paradigmatic and, occasionally, morphosemantic features, but exclude prototype. This option seems to be meaningful, if the term is to be used uniformly with a clear underlying notion working independently from context (identity of terminological and contextual meaning). This artificial intervention of terminology is displayed in the semiotic model of Suonuuti (1997: 9), where definition adds a fourth side to the semiotic triangle. However, in some cases an option for prototype might be useful as well, e.g. if F. *cadre* was to be used in social psychology in order to conceive the idealized mental prototype which motivates social behavior. The drawings of objects in terminographic dictionaries are a very common way to combine abstract definition with concrete referential knowledge (Galinski/Picht 1997: 43–57). It follows that the semiotic effect of terminographic work is not limited to definition, as pointed out by Depecker (2003: 19), but may also affect the morphosemantic dimension and the referential representation included in a concept.

Depending on the function of the term, terminography tries to deepen the relevant dimensions of the concept and to establish coherence between the dimensions, avoiding misleading morphosemantic information, because morphosemantic transparency supports the understanding of newly coined terms. Schmitt (1977: 524–526) observed that all neologisms in the specialized discourse of economy in France are in fact motivated and transparent (*cf.* Depecker 2003: 9, 68). Some terminologies try to cover completely a whole field. Social statistics, for instance, aims at a coherent classification of a whole population in groups (Section 2). Paradigmatic oppositions will be prior to the other dimensions of meaning, e.g. the opposition of F. *cadre* to *employé* and *ouvrier*. At the same time, relational features will be more important than simple inherent features without distinctive force. On a more technical level, a detailed list of the objects included in and excluded from the extralinguistic class (social group), will be necessary, in order to handle the fuzziness of extralinguistic classes. This list suggests generally a hierarchy of groups, which may try to reflect as well as possible the one which predominates in the mind of the population itself (*cf.* Schema 4). However, common language does not contain a complete and coherent classification system of this type for professional groups. Empirical context analysis only allows to find out some important paradigmatic relations. By creating complete taxonomies, social terminology reinforces and deepens these paradigmatic relations (*cf.* Budin 1996, who insists on the organizational aspect of knowledge in specialized languages and its representation by linguistic signs).



Schema 4: The conceptual hierarchy of F. "salarié"

The intent to establish taxonomies is also artificial in another way. Cognitive Linguistics is right to postulate complex networks of knowledge which offer more types of relations than simple paradigmatic hierarchy. Taxonomies do not allow to reflect these networks of knowledge. But a good terminographic dictionary should be able to make cross-references in order to construct an adequate representation of a special language's knowledge network as a sort of underlying macrostructure. From a methodological point of view, it should be possible to give a good empirical account of the items related to a term which occur in a context corpus, since electronic corpora permit their retrieval in the nearer context and a statistically valid description of their importance (Dubuc/Lauriston 1997: 84). The terminological frames and scripts obtained in this way might be a good base for cross references in the entries of a dictionary. Nevertheless, I do not believe that our mind contains complete, preexisting networks of knowledge, since the effective relations between concepts are individually established in concrete thought and speech (*cf.* Engberg 2008: 270–273). The problem seems to be basically the same as in lexical field theory: the words may be related, but it is hard to believe that they are definitively related in mind like in a lexical field or a cognitive network. The only real networks we have are texts and discourse, where linguistic items and knowledge are related in a creative way. All corpus-based lexicological or terminological abstractions are simple intents to approach something like the most common network relations in language and knowledge. This is of course an important and exciting terminographic task. But the result should not be as static as structuralism has come to be.

The turnover from simple paradigmatic relations of the lexical field type to the network concept of Cognitive Semantics (*frames, scripts*) is crucial for general semantic theory. My initial proposals in Hummel (1993a: 82–119) have to be revised accordingly. We could even be tempted to argue that there is no reason to treat the three dimensions of meaning separately, but to conflate them in one network. Especially, we could think that there is no separation between the referential representation and the paradigmatic networks because of the contiguity we observe in extralinguistic structures. This point of view is right, if we look at the extralinguistic situation disregarding linguistic reality, for instance, the extralinguistic fuzziness or contiguity between what is "thick" and what is "thin". But if it is true what we have pointed out in Section 1, then there must be a cognitive effort to *conceive* the meaning of the words *thick* and *thin* and the reality they refer to as being not only different, but clearly opposed. This forces us to assume that in linguistic meaning the mental representation of extralinguistic reality is thought to be different from the surrounding representations. Mental prototype is a good example for this cognitive effort. If this is true, we have to separate, from a linguistic point of view, the referential dimension from the paradigmatic one, since this is exactly the function of a linguistic sign. The simple fact that we tend to believe that words refer to objects different from other objects shows that this separation corresponds to our idealistic mental reality against extralinguistic contiguity. That is why I would like to maintain the term *paradigmatic dimension*. The morphosemantic dimension is clearly different in nature from the other dimensions because of its intralinguistic motivation. The functional effects of different weight in the lexicon and selective relevance in context pointed out in the preceding sections give important additional evidence of this point of view. I would thus like to maintain the division of meaning in three dimensions. Semantic networks, as discussed in Cognitive Semantics, would then be limited to the paradigmatic dimension which treats the relationships between word-associated concepts to other concepts.

Perhaps a pragmatic dimension should be added to the tridimensional model of meaning in order to give account of the communicational experience associated with a word or term, e.g. the specific connotation of F. *cadre* and G. *Kader* (*cf.* Section 9). However, for the specific purpose of this paper, the three dimensions seem to be adequate for a rather complex description and explanation of the main lexicological and terminological problems treated.

9 Terminology and history

Terminological theory and terminographic effort are selective also in the sense that they stick to synchrony because terms are meant to be instruments for actual specialized communication. On the other hand, the impact of history on the meaning of words and terms cannot be neglected in a more general perspective, since a digital, cabled radio is not the same as a first generation radio (Depecker 2003: 8). The impact of culture turns out to be a major issue for socioeconomic terms (for the following *cf.* Hummel 1993a, b). The French word *cadre* was borrowed from Italian in the 16th century, which reflects the international prestige of Italian Renaissance. It soon got its basic meaning 'frame'. Later on *cadre* passed to refer also to whole frameworks which support technical constructions and human organizations. This meaning of *cadre* follows historically the rise of big organizations. The first big organization of a modern type was Napoleon's army (first use of *cadre* attested in 1796), followed by public administration (1840), political parties (1880) and big industrial companies (1931). The *cadres* formed the supporting structure and, thus, the elite. The desire to pertain to the elite motivated the individual desire to belong to the *cadres*. This is the reason why *cadre* was used to refer to a single person also. This special meaning was the one which came to be associated with the actual mental prototype. Note that the prototype of a *cadre* is exactly the same we find associated in German with *Manager*. In both cases, the prototype stems from the prestige of the economic model represented by the Unites States after World War II. *Cadre* was strongly connotated with the (danger of) Americanization in France. Curiously, the etymologically related word *Kader* is used in German with a strong connotation of communism. The historical explanation can be traced back to Lenin who borrowed the word from French military terminology in order to use it for his elite model of socialist revolution. In summary, we see that the mental prototype of a word like *cadre* may be considered, from a historical point of view, as a crystallization of historical referential experience. In this sense, *cadre* has a 'cultural charge' (Galisson 1987) which allows us to consider it a cultural key word linked to an epoch (Matoré 1953). This implies at the same time that the word and the terms coined out of it will grow older in future in the sense that the mental prototype will be perceived as being a prototype of the past, which has already occurred for the prototype of F. *employé* associated with the first half of the 20th century. Possibly similar effects may account for new terms in other domains as well, when the mental prototype associated with a term connotates an old technological standard. It may be important to see that the notional element 'member of an elite' is less linked to a specific sociohistorical context than the prototype. The same holds for the morphosemantically based meaning of F. *employé*, G. *Angestellter*, and also E. *worker*. From a general semantic perspective, it may also be relevant to see that morphosemantic information forms a semantic box which will be filled with referential experience through individual biography and social history. If we take into account that even concepts of the notional type, like morphosemantic information, produce goodness of membership effects in reference, we may postulate that the crystallization of referential experience in mental prototypes or more specific knowledge of examples are natural consequences of meaning. The force of crystallization, however, depends essentially on the interest a word's use encounters in society.

The mental impact on concept and object pointed out in Section 2 is particularly evident when the perception of reality is culturally determined. The extralinguistic reality of industrial organization is very similar in France and Germany. Nevertheless, both languages have a different lexical structure to cover this reality, e.g. the distinction between *employé* and *cadre* where German uses only one word *Angestellter*.

Conclusion

I did not find fundamental differences between lexicology and terminology, or lexicography and terminography. The differences are mainly a matter of effort, normalization and consciousness. So terminology will sharpen and normalize the referential dimension in order to improve the technique of extensional delimitation of classes of objects. It will also sharpen and normalize paradigmatic relations in order to achieve maximal taxonomic coherence of terminological systems. It will furthermore prefer terms whose morphological structure (motivation) matches with the concept. Most differences between terminology and common language, as the act of linking a concept to its name in order to create a term or the separation of linguistic and encyclopedic features, are motivated by technical considerations of terminography. Of course, all these efforts imply a higher degree of consciousness as well, in comparison with the semiotic consciousness of speakers in common language. Finally, terminology prefers notional definition (general classification rules) at the disadvantage of prototype or other *Gestalt*-like representations, which instead will appear more concretely in the pictures and drawings of the encyclopedic knowledge.

From a methodological point of view, different methods may be used to approach meaning (introspection, translation, etc.), but in any case, context analysis of an adequate corpus has to be used for control of results. Speakers may not be able to define the meaning of an isolated word in an inter-subjectively valid way. In context, however, speakers know what the word means, since communication depends on it (*cf.* Dubuc/Lauriston 1997: 81–82). In most cases, the linguist himself is able to extract the meaning of a word in a sample of contexts in order to access core meanings, polysemy, etc. This may not be possible in all contexts, but is not really a problem, if most of the applications can be analyzed without any doubts. ◆

Notes

1 F. = French; G. = German; E. = English; Sp. = Spanish

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Martin Hummel
Karl-Franzens-Universität Graz
Institut für Romanistik
martin.hummel@uni-graz.at

Assessing the dynamic character of legal terms

Jan Engberg

Abstract In this article, a method for establishing hypotheses about the structure and content of expert knowledge as a basis for meaning construction in the field of legal discourse is presented. In the same way as in other fields of human linguistic meaning, a full picture of the actual complexity of meaning as it emerges in communicative situations presupposes the combination of an individual and a collective perspective on meaning. More specifically, meaning construction is performed by individuals on the basis of their individual knowledge base, at the same time as the process is inherently collective in order for it to be communicatively efficient. The method presented in this article chooses to give priority to the individual perspective, but also contains options for taking the collective perspective by aggregating individual results. The article starts out by discussing some of the basic issues of the methodological problem at hand. The concept from US law analyzed here (criminal *liability of corporations*) is described, as well as the chosen unit of description (i.e., *Matrix Frame*), is presented in some detail and used for a practical analysis of the concept. The article finally situates the presented method on three scales that are relevant for assessing its scope.

Keywords knowledge frames, legal concepts, legal discourse, semantic analysis, methodology

1 Introductory remarks

The topic of this article is the linguistic investigation of legal communication, and especially of the meaning of legal concepts as it emerges in this type of communicative situation. Legal concepts are, among other things, characterized by having as their *raison d'être* the solution of conflicts between different interests in society. This means that they often contain conflicting interests that have to be balanced against each other when applying the concepts in concrete situations. In the example presented in this paper (the concept of *criminal liability of corporations* from US law), the conflict of interests is between protecting society against wrongdoers and protecting corporations from being punished as a collective for something that an individual has committed (for more details on the concept, see Section 2). Consequently, such conflicting interests cause the meanings of the concepts to become potentially instable at the level of the individual language user as well as at the level of the speech community. Concerning the speech community, the balance between the conflicting interests vary over time because of general developments in society. Concerning the language user, in all instances of communication the communicating individual may choose to shift the balance according to specific factors in the situation or due to individual positions or interests. The main purpose of the present article is to demonstrate a method that takes such characteristics into account.

I take a constructivist approach to the description of human meaning. Such an approach makes the dual character of such meanings that emerge from communicative interactions come into focus:

- When people construct meaning in actual communication, this process runs on the background of their own personal stock of knowledge. This knowledge base is dependent on their own biography and experiences and thus necessarily *individual*.
- On the other hand, in order to achieve mutual understanding in actual communication, it is a prerequisite that a certain agreement about the general understanding of linguistic elements should exist at a *collective* level.

Here we see an interesting problem for the description of meaning in general as well as of specific meaning in concrete specialized communication: If meaning has this dual character, how can we then theoretically and methodologically grasp and represent its duality (= linguistic meaning as simultaneously individual and collective)?

The relations between linguistic meaning at an individual and a collective level are one of the topics that Ludwig Wittgenstein treats in his *Philosophische Untersuchungen*. Here he shows that the idea of a private language is absurd, because such a language would prevent users from knowing whether they still used a word consistently (Wittgenstein 1984: 361–365). Language as a rule-based entity is thus inherently a public and collective entity, and meaning is constructed in public language games, not in individual thought processes. However, at the same time, participants in the language games are individuals whose cognitive activity is based on their personal experience. And even Wittgenstein bases his argumentation on the assumption that personal experience does not necessarily have to be in accordance with collective knowledge (Wittgenstein 1984: 366). Although this is not a problem for philosophy, it still confronts us with an interesting psychological dilemma as presented in aphorisms no. 273 and 274 in Wittgenstein's *Philosophische Untersuchungen* (Wittgenstein 1984: 366–367):

- The word *red* when used in normal communication, does it designate a concept common to all of us? And should we all besides that have a second word that refers to our personal perception of the colour? In other words, are there conceptual differences between the collective and the individual?
- Or is it rather the case that when using the word *red* we designate the concept which we perceive as common and at the same time refer to and compare with our personal perception, checking that we individually know what we should know? In other words, are the collective and the individual two sides of the same coin?

In actual communicative situations, this relation is connected with a chicken-and-egg type of problem: Is the individual perception or the collective notion primary? Different authors reach different conclusions in this question.[1] However, what Wittgenstein's deliberations definitely show is that meaning has to be approached from two perspectives, viz. the collective/cultural perspective and the individual/representational perspective in order for us to describe its actual complexity.[2] Specialized communication as human linguistic communication is no exception here. Relevant investigations of the word meaning in specialized communication and the actual content of expert concepts thus require methods with the potential to grasp this duality.

This article describes the study of an example from US law, i.e., the concept of *criminal liability of corporations*. A frame-oriented approach to expert communication was used to analyze this concept. The final section of the article discusses the methodological conclusions derived from the analysis of this example.

2 Concept example: *Criminal liability of corporations*

The concept investigated here has three main components:

> **liability**, n. **1.** The quality or state of being legally obligated or accountable; legal responsibility to another or to society, enforceable by civil remedy or criminal punishment
> **criminal,** adj. **1.** Having the character of a crime; in the nature of a crime
> **corporation,** n. An entity (usu. a business) having authority under law to act as a single person distinct from the shareholders who own it and having rights to issue stock and exist indefinitely; a group or succession of persons established in accordance with legal rules into a legal or juristic person that has legal personality distinct from the natural persons who make it up, exists indefinitely apart from them, and has the legal powers that its constitution gives it.
> (Garner 2004)

We are thus talking about the responsibility for criminal activities of an entity (the corporation) that acts as an independent player by way of natural persons, but in its own right and as an independent legal person. The concept is especially interesting for our purposes, because as previously mentioned, it is an example of a legal concept that holds two conflicting interests at the same time:

- On the one hand, society wants to be able to punish the person actually responsible for criminal activities. And in some cases this is rather the *corporation* as such than the natural persons carrying out the activities. At the beginning of the 20th century the concept was introduced into US law in order to avoid situations, in which a corporation could take advantage of actions carried out by employees at lower levels of the hierarchy, for which only the employee could be punished.
- On the other hand, it is a basic principle in US law that criminal liability presupposes *criminal intent* or *mens rea*. And as corporations are not natural persons it is at least subject to discussion to what extent it is possible to ascribe such criminal intent to the corporation as such (and not merely to the natural persons acting on behalf of the corporation).

In expert discussions on this concept and its precise content, it is necessary to take into account the exact balance between the conflicting interests and the consequences of this balance for the relative weight of the components of the concept. Thus, knowledge about the different principles and their balance, when applying the concept, is part of the knowledge base necessary for participating in specialized legal communication on the topic. This fact makes the concept especially relevant for research on the structure and composition of specialized knowledge as an individual and a collective unit. Section 3 describes a methodological framework for the study of this type of specialized meaning in context.

Before approaching this part of the argumentation, however, a few words on the concept as an instance of US legal concepts are necessary. The legal system of the US is characterized by being a federal system, where concepts may differ from federal to state level and between the systems of different states. The concept of *criminal liability of corporations* is no exception here: According to different state laws and precedents, the details of the concept are different in different jurisdictions. However, in all contexts in which I have encountered the concept the dichotomy of interests described above is present. In other words, one may say that across the conceptual differences in different jurisdictions a common conceptual core exists. And it is this common core rather than the exact terminological legal meaning that will interest us in this paper on specialized semantics. I think that we can here see a difference between the traditional interests of legal scholars (terminological orientation) and the interests of linguists investigating mental meaning structures (orientation towards human knowledge structures).

3 Conceptual Knowledge Frames – Matrix Frames

3.1 Basic characteristics

The basic unit of description used in our study was the knowledge frame as the organizational unit for knowledge stored in long-term memory, which language users apply when understanding and conceptualizing a situation. The concept goes back to Bartlett's (1932) concept of *schema*, which he characterizes as follows: "'Schema' refers to an active organization of past reactions, or of past experiences, which must always be supposed to be operating in any well-adapted organic response." (Bartlett 1932: 201) Thus, we are talking about a way of conceptualizing the stable organization of an individual's long-term memory, and thus, the basis of understanding and reacting to stimuli from outside the individual's cognition. For our purposes, the attribute **active** *organisation* is important. It is regarded as a constantly open structure which reacts to new experiences and fine-tunes the stored structures, if necessary. Text understanding is seen as a constructive process in which incoming stimuli are mapped onto existing schemas and each incoming stimulus simultaneously functions as input to the stored schemas. This input may lead to a strengthening of the schema or to necessary fine-tunings.

The limited framework of this article and its focus on the application of the method proposed to a concrete example do not allow me to enter into a lengthy discussion of different approaches and basic assumptions underlying the frame concept.[3] Instead, a short presentation of the basics of the specific frame concept applied here is provided, and its advantages underlined.

The method applied in this study, which could be termed *Knowledge Collection and Categorization Method*, is based on the conceptual-frames approach (Konerding 1993). The guiding principle in Konerding's approach is *frame heuristics*. This means that it works deductively with a limited number of *Matrix Frame*s (twelve in total). The frames emerge from a process Konerding calls *Hyperonymtypenreduktion* (i.e., reduction to types of hyperonyms). In this process, Konerding starts with meaning paraphrases in articles in major German dictionaries and looks for hyperonyms to the investigated concept. For each hyperonym found the search process for a new hyperonym is repeated, until a level is reached where circularity emerges, or where hyperonyms do not carry specified meaning any more. Thus, the Matrix Frames have emerged from an empirical and inductive process.

One of the basic assumptions of the approach is that all noun-based concepts are subsumable under one of these Matrix Frames. The process is mainly intuitive, but hardly poses objectivity problems, as the small number of Matrix Frames limits possible overlaps. This characteristic is relevant in connection with assessing the ontological status of knowledge frames. Due to their roots in Bartlett's original idea about schemas, knowledge frames basically have to be conceptualized as cognitive entities.[4] Such mental entities are not directly observable, as even introspection does not give us any direct connection to knowledge frames in their actual structural entirety. Instead, we have to fall back on textualizations of the knowledge and analyze these texts as hypothetical reflections of background knowledge.

This process of establishing hypotheses may in principle be carried out either inductively or heuristically-deductively. In an inductive approach the analyst reads the texts and comes up with hypothetical frames that are in accordance with the textual input. In the heuristic and deductive approach, on the other hand, the analyst works on the basis of a 'straitjacket' of possible types (Matrix Frames) and structures (inside each Matrix Frame). Konerding (1993: 303–364) works with the following nine empirically established basic Matrix Frames:[5]

- Object (concrete)
- Organism
- Person / Actor
- Institution / social group
- Event
- Action
- State
- Part of
- Whole

This list has some resemblance with top-level ontologies like for example GFO.[6] This is not surprising, as such ontologies share with the Matrix Frames the intent to be all-inclusive concerning possible concepts to be evoked in communication at a high level of abstraction. However, Matrix Frames are basically constructed inductively, where top-level ontologies are often constructed deductively and on the basis of principles of logic. Furthermore, ontologies normally represent the concepts they consist of in a hierarchical system. The Matrix Frames are in principle independent of each other, although some of them have subdivisions (see note 5 below). The idea of hierarchies of concepts plays no significant role in the development of the Matrix Frames. They are only meant to function as points of crystallization, under which concepts and the knowledge connected to the concepts may be subsumed. However, the results from a collection of knowledge on the basis of Matrix Frames may certainly serve as starting point for building a (domain-specific) ontology. For the output of the application of the frames is knowledge as reflected in the analyzed texts.

For each Matrix Frame Konerding has established a list of questions (on the basis of investigations of semantic valency of verbs connectable to the basic concepts) that establishes dimensions of the concept type that are potentially relevant for describing concepts of that type. By subsuming a concept under a specific Matrix Frame, the analyst thus receives a set of dimensions, which can be used for sorting the knowledge laid down in the investigated texts. The concrete analysis consists of reading through texts looking for excerpts (full sentences or parts of them) that treat the concept and may be interpreted as answers to the questions from the Matrix Frame (thus the term *Knowledge Collection Method*). When working with longer texts or higher numbers of texts, a way of making the method feasible is to concentrate upon stretches of text, in which the concept is explicitly mentioned (Lönneker 2003). All answers to the same question are categorized together (thus the term *Knowledge Categorization Method*). The structure of the concrete concept then consists of a specific choice of dimensions, and the specific content of the concept is visible through the concrete text excerpts subsumed under the dimensions.

Especially the Categorization part of the method is prone to some subjectivity in the interpretation process. For the categorization is based mainly on the knowledge of the researcher and his or her interpretation of the stretches of text. In order to reach a sufficient level of stability and replicability it is therefore necessary to include some of the methods used in interpretive studies from qualitative paradigms in sociology and discourse studies like employing more interpreters and measuring the interrater reliability. In this pilot study I have not applied this approach, but below I present the selected chunks subsumed under one question and highlight the elements that have lead me to interpret them as answers to this specific question. Thus, the basis is made visible. But a degree of subjectivity will remain in the interpretation process. I think it is a necessity, if we, as this method does, intend to assess the actual knowledge applied by individuals in their communicative interaction.

The main advantage of a heuristic and deductive approach like this one is that it is applied in the above-mentioned 'straitjacket': As the goal of the analysis is to establish hypotheses concerning the content and structure of knowledge frames that are only accessible in an indirect way, it is crucial to diminish the degree of subjectivity of a method as much as possible. A method working with a fixed set of questions is more appropriate for assessing knowledge frames since it is more independent of the structure of the texts being studied. It thus presents a less subjective basis for establishing hypotheses regarding the structure and content of knowledge frames than an inductively based approach.[7]

Furthermore it is important to note that the goal of the methodology is not to assess the full textualized and presupposed knowledge base that the author applied when writing the text. Thus, the interest is not primarily on the actual structuring of knowledge from the point of view of the text itself, just like I am at least for the time being not interested in the specific instantiations of the concept in different jurisdictions at US state level. Instead the method is directed towards assessing the author's knowledge of the investigated concept and presenting it in a systematic format in order to give the analyzer an overview of the knowledge represented in the text from the point of view of the investigated concept. The systematic format consists of the heuristic set of questions, through which the text is analyzed. In other words, it is not the text and its structure, but rather the external set of questions that is the governing factor when gathering and categorizing knowledge elements.

3.2 Example

A relevant example is the concept of *criminal liability of corporations*. This concept may be subsumed under the Matrix Frame 'State', as being criminally liable is a state, in which the corporation ends after legal scrutiny. Consequently, the following list of questions from the relevant Matrix Frame was used as basis for the analysis:

1. In what context does *criminal liability of corporations* typically occur? Of what does one typically say that it is liable?
2. What phase of existence of what entity is involved?
3. How can one see that *criminal liability of corporations* exists (= that someone is in this state)?
4. How is *criminal liability of corporations* measured? What are the standard measurements?
5. In what functional contexts does *criminal liability of corporations* play a role?

6. What is the function of *criminal liability of corporation*s in these contexts?
7. What are the characteristic elements of *criminal liability of corporation*s?
8. What is the functional role of these characteristic elements?
9. Under what circumstances does *criminal liability of corporations* emerge?
10. What is the function of *criminal liability of corporation*s in its context?
11. What other names exist for *criminal liability of corporations* and how widely known is it in the field?
12. In connection with what human activity [within the field treated here] does *criminal liability of corporation*s play a role?
13. What is the relevance or use of *criminal liability of corporations* for humans / society?
14. What other qualities or states is *criminal liability of corporation*s closely related to, and what are the differences?
15. Are there specific theories concerning *criminal liability of corporations*?
16. To what extent do legal experts agree on these theories?
17. What does the existence of *criminal liability of corporations* in someone say something about?

This list of questions has been taken as point of departure for a pilot study of a corpus of a total of 9 articles randomly selected from US legal law reviews. As a first step, one of the texts was analyzed. This analysis was followed by the aggregation of the results of one question across all texts of the corpus.

The text initially analyzed was the article by the US lawyer Becker (Becker 1992). Table 1 shows which questions were answered in the article and how many text parts were subsumed under each question:

Table 1: Questions answered in Becker (1992)

Question	Number of subsumed text parts
7	5
13	6
14	1
15	1
16	4

According to Table 1, the dimensions “Characteristic elements” (7), “Relevance for humans/society” (13) and “Agreement among legal experts” (16) are central in the text. The hypothesis is then that they are also central elements in the knowledge frame of the author.

Next, the answers to question 13 (Relevance of the concept for humans/society) as the most frequently answered question in the text were analyzed. I categorized six sections of the text as answers to question 13. The knowledge in these sections pertains to arguments for developing the legal concept of *criminal liability of corporations* and to discussions about whether the concept is at all justified:

- The **four purposes** offered for holding individuals criminally liable are **deterrence, retribution, rehabilitation, and incapacitation** Of these, deterrence has emerged as **the main purpose** when dealing with corporate misconduct. (439)
- It is well established that corporations are motivated by money, which takes the form of profits in the corporate context. This would tend to indicate that **civil penalties are sufficient**. (441)
- The problem with both sides of this analysis is that the commentators do not address the real issue: **can a corporation have the guilty mind (mens rea) required for the committal of a crime or for the imposition of liability? No!** It is that simple. Certainly, in some cases, the directors and management can formulate a scheme and conduct it behind the cloak of the corporation. But one should hold them liable, not the corporation! (463)
- The main reason for not imposing criminal liability on a successor corporation is that **only the party that commits a crime should have to suffer the stigma of a criminal prosecution**. In successor situations, the successor corporation does not commit a crime. (469)
- The **purpose for imposing criminal liability in the corporate context is deterrence**. (470)
- The **best way to deter corporations** is to hit them where it hurts – their profits! Criminal stigmatization will not likely cause substantial financial harm to a corporation. A large fine would cause direct harm and therefore provide a greater deterrent. Any arguable loss in the deterrent effect is the price society has to pay as a result of the fact that corporations do not have a *mens rea*. Because of this, they do not merit criminal liability (476)

Elements central for subsuming the text parts under this question have been highlighted. The text excerpts indicate that according to the author, the purpose of the concept of criminal *liability* should be deterrence through *the stigma of criminal prosecution*. However, this instrument should only be applied in cases where this is truly justified (*only the party that commits a crime should have to suffer …*). However, in the case of corporations the instrument is not deemed optimal (*The best way to deter ….*).

What is studied here is thus the textualization of parts of a personal knowledge complex in the text of an individual. Taking heuristically assumed structures outside the text as point of departure for the analysis, it is possible to focus the textualized knowledge thematically, follow the textualization of a concept in a text, and represent the elements found in a systematic format, which is not primarily dependent on actual textual structures. If such individual representations of knowledge laid down in texts are collected from various individuals and converted into an aggregated representation, this may offer the perspective of the collective.

Figure 1 shows text sections that have been collected and paraphrased from nine articles in US Law Journals that have been categorized as answers to question 13:

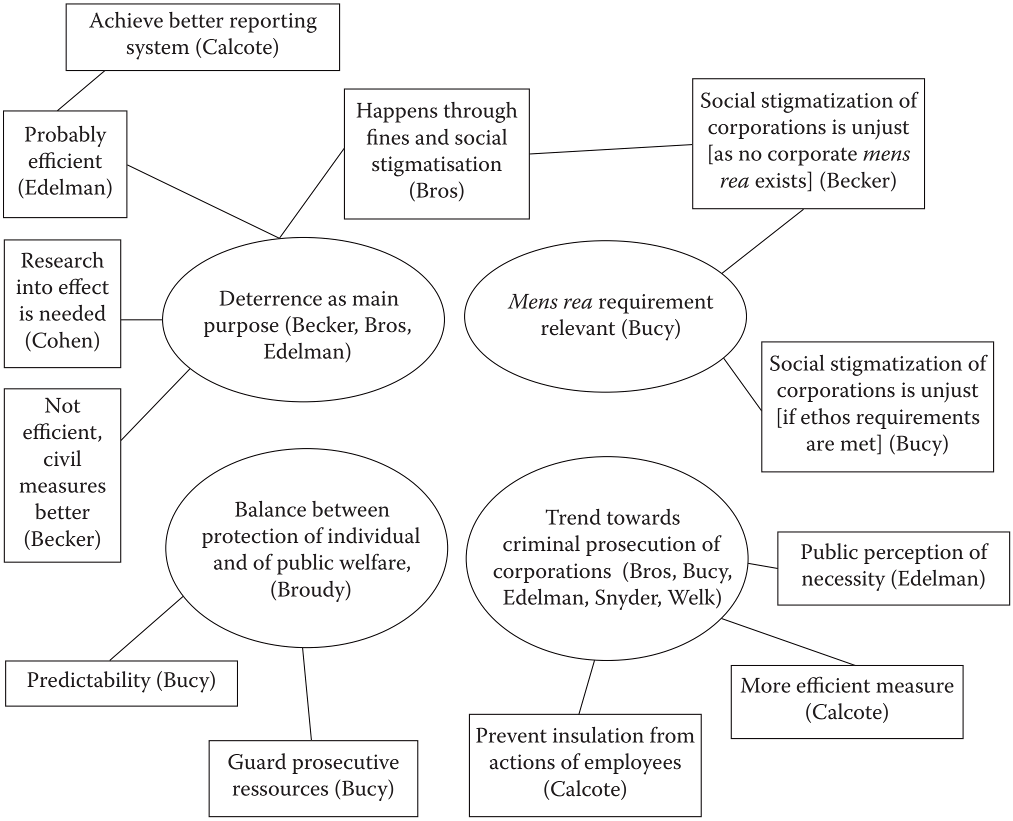

Fig. 1: Knowledge chunks represented in corpus; answers to question 13; aggregated picture

In the nine articles I collected and categorized a total of 15 different knowledge elements as related to this question. Some knowledge elements only occurred once, whereas others were represented by more authors. In connection with each knowledge element the authors textualizing this element are indicated. The structure of the network is the result of a subsequent classification of the knowledge elements found by the analyzer. Four knowledge elements (round forms) were classified as more basic than the others on the basis of their level of abstraction. Two of these knowledge chunks appeared in more than one article, viz. *Deterrence as main purpose* (Becker, Bros, Edelman) and *Trend towards criminal prosecution of corporations* (Bros, Bucy, Edelman, Snyder, Welk). All other elements were only represented once. The chunks in round forms were regarded as more basic than the ones in squares since the chunks in squares were seen to presuppose the chunks represented in round forms. For example, a logical presupposition for Becker's argument that civil measures are more efficient (top left corner) is that deterrence is the main goal of making the behaviour of corporations criminal. The first chunk is only logically relevant in the context of the second. All relations in Fig. 1 are of this same type, viz. PRESUPPOSITION-OF.

What qualified as an independent knowledge element was not explicitly laid down in advance, the categorization emerged inductively from handling the material and was a result of a subjective interpretive process. However, textual clues (coherent stretches of text are seen as one knowledge element) played a decisive role in the assessment. Again, in major studies it will be necessary to include other interpreters, preferably interpreters with relevant specialized knowledge. Here, furthermore it could be considered to work with a more automated process of proposition reduction, maybe inspired by the macrorules suggested by van Dijk (1980: 46–50) in order to connect micropropositions with macropropositions in processes of understanding.

The general picture obtained from the aggregation of the analysis of the individual authors' knowledge systems is that the knowledge chunks extracted from the different texts form a very coherent picture: Knowledge chunks mentioned in one article presuppose knowledge chunks presented in one or more other articles. Generally speaking, the chunks are mutually compatible, and reflect a coherent picture of the knowledge connected to the concept of *criminal liability of corporations*. However, the analysis contains two exceptions to this state of affairs:

- The basic round element *Deterrence as main purpos*e is related to three elements in square format, which are mutually exclusive (*not efficient, research needed, probably efficient*, top left corner). These positions are hotly debated in the community of legal experts.
- The basic round element *Mens rea requirement is relevant* (top right corner) is related to two elements in square format, which represent different conclusions regarding the same basic assumption: Becker (1992) concludes that the claim is relevant in general (due to the nature of the concept in US criminal law), but that it is not applicable in connection with corporations (due to the nature of corporations); Bucy (1991), however, arrives at the conclusion that the claim is also applicable in connection with corporations as long as the *mens rea*-requirements are met by applying a relevant standard, which the author suggests. So again here we obviously have disagreement between legal experts.

The aggregation supplies us with a way of modelling the collective knowledge and especially of showing where the collective knowledge is still not absolutely stable. The reason why this is interesting is that such unstable points are typically an arena of discursive attention (as experts have to position themselves on these questions from the point of view of their stance in the discipline). And these are also the points where developments in the collective knowledge are most likely to happen.

A final word of caution concerning the results is relevant: I have here concentrated on assessing the knowledge of legal experts as represented in law review articles. However, this knowledge is not necessarily identical with the institutionally upheld and thus legally binding meaning of the treated concept. For in law, some players, viz. judges, are institutionally more powerful in the field of instigating meaning than the rest. Thus, a hierarchy may exist among disputed elements, if judges tend to opt for one of the competing meanings. The principle chosen in Fig. 1 to classify the knowledge chunks does not catch this type of hierarchy, but it would be possible to insert it on the basis of parallel studies of textualizations in court decisions, or through studies of textualizations of the hierarchies in the law review articles themselves. Relevant knowledge chunks may be categorized as a specific answer type under question 16 (*To what extent do legal experts agree on these theories?*). Thus, the hierarchy could be shown by combining knowledge from different categories or from different sources.

4 Conclusions

In this paper I have demonstrated the basic characteristics of a method of analysis oriented towards assessing the knowledge underlying specialized communication. In connection with evaluating methods for such a task, I have considered three scalar dichotomies to be relevant: collective vs. individual perspective on knowledge, inductive vs. deductive approach, and textual vs. conceptual perspective.

- *Collective vs. Individual Perspective on Knowledge:* The Knowledge Collection and Categorization Method described in this article chooses the individual perspective as its vantage point. Thus, the basic operation is to assess what knowledge each text author lays down in his or her text. However, in a second methodological phase, it is possible and relevant to aggregate the results of the scrutiny of the individuals, as shown in Figure 1. Therefore the method provides a way of studying the collective perspective of knowledge despite the predominance of the individual perspective. In this choice, the method is related to the approach suggested by Krause (2008), whereas it differs somewhat from the method applied in Faber, Montero Martínez et al. (2006). The latter approach uses corpus study as its primary basis, thus focusing from the beginning upon the collective perception, whereas the method presented here focuses on each text as the reflection of the knowledge of an individual and only takes the collective concept into consideration in its subsequent phases.
- *Induction vs. Deduction:* This method is predominantly deductive and heuristically oriented since it uses a very general set of Matrix Frames, composed of generally applicable questions/dimensions as a basis for collecting and categorizing the knowledge elements found in the text. However, in practical analyses it was necessary to supplement the basic set of dimensions in order to cater to aspects with specific relevance for the specialized domain. For example, the dimension of *historical development* turned out to be central for the legal discourse, although it was not part of the original set of questions connected to the Matrix Frame. And when the aggregation step is introduced, focus shifts towards induction, at least in the present version. One way of introducing stronger elements of deduction in this second step would be to include the specialized knowledge of legal experts and establish aggregated structures in dialogue with them on the basis of their expertise. Such a procedure would be akin to the Termontography approach by Temmerman and collaborators. In this latter approach, the categorization framework used for sorting the data gathered from a domain-specific corpus is set up in interaction with experts and expert presentations (Kerremans et al. 2008: 184).
- *Text Perspective vs. Conceptual Perspective:* The Knowledge Collection and Categorization Method is centred on a conceptual perspective. This means that instead of textual structures, it focuses on the general structure of the Matrix Frame, which constitutes the basic point of view in the analysis. This perspective means that the analyzer may choose the level of granularity relevant for the investigative task at hand, as shown in the examples presented in the article (individual result vs. aggregated result, common conceptual core vs. specific instantiations in different jurisdictions). Methods oriented more towards textual structure such as semantic network analysis tend to be more elaborate and thus more tuned towards assessing the individual situation in which the text is used.[8] In contrast, the approach presented here uses examples from individual texts to

gain a much clearer representation of the collective perspective than is offered by more textually oriented methodologies. ◆

Notes

[1] See, e.g., Chomsky (1986: 24-36), who focuses on the so-called *I-language*, i.e., the internal language of the individual language user, as opposed to Searle (1995), who focuses on the social and collective perspective. Harder (1999), Sinha (1999), Sinha/Rodríguez (2008) and Engberg (2009), on their side, rather favor a multi-perspective approach.

[2] Krause has presented a series of works which intend to meet this challenge by approaching meaning from two perspectives: She distinguishes between a primary, individual and discourse-based unit *Konzept* and the secondary, collective and system-oriented units *Wort* and *Begriff* (e.g., Krause 2008). The methodology to be presented in this paper equally sees the individual unit to be primary and therefore takes its point of departure in the equivalent of the *Konzept*.

[3] See Engberg (2007) for a deeper discussion of these topics.

[4] Konerding (1993: 130) states that he wants his frame concept understood not as cognitive knowledge frames, but as *Verbalisierungsresultate* (i.e., results of verbalization). Thus he can from a research methodological perspective focus upon the investigation of how people verbalize on the basis of knowledge frames. However, for my purposes this restriction is not sensible, as I am actually interested in establishing (hypotheses about) the stored knowledge and not merely in investigating the results of verbalization.

[5] Konerding actually works with twelve different matrix frames, as he subdivides Object into *Natürliche Art / Artefakt / Diskontinuativum* and Person / Actor into *Person mit temporärer oder dauerhafter Eigenschaft* and *Person in berufsbezogener Rolle*. For our present purposes the list without subdivisions is sufficient. See also Lönneker (2003) for a slightly more elaborate system of basic frames constructed on the basis of Konerdings system.

[6] General Formal Ontology, see http://www.onto-med.de/ontologies/gfo/index.jsp.

[7] For a pilot study supporting this assumption, see Engberg (2007). For another example of a frame approach applied to specialized discourse, which also favors a heuristic and deductive approach, see Faber/Montero Martínez et al. (2006). They assume that specialized domains are characterized by specific events and use the logical format of an event (consisting primarily of actors, processes, instruments, patients and results) as the format for categorizing the elements of knowledge found through analysis of a corpus of specialized texts.

[8] For an example of applying this method to assessing the knowledge of an individual in a specific situation, see Engberg (2009).

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Jan Engberg
Aarhus University
Aarhus School of Business
je@asb.dk

Terms in context: A corpus-based analysis of the terminology of the European Union's development cooperation policy

Judith Kast-Aigner

Abstract This paper is concerned with the terminology the European Union (EU) has created and used with regard to its development cooperation policy during its existence. The idea of fostering the development of less privileged countries by means of preferential trade agreements and financial aid was already incorporated in the Treaty of Rome in 1957, making development cooperation one of the Union's oldest policy areas. Both the concrete concepts and the respective terms applied have been subject to continuous change, the more so as they were strongly influenced by the political and economic situation at the time. The purpose of the paper is to illustrate how tools and techniques developed in corpus linguistics can assist terminologists in compiling terminological information. It presents some of the results of a detailed diachronic study of the English terminology of the EU's development cooperation policy, aiming to describe the conceptual and terminological changes in this field over time. The analysis is based on a corpus of EU texts and supported by linguistic software, viz. WordSmith Tools. The generation of key words and word clusters is complemented by the establishment of terminological domains, which represents a helpful way of structuring the terms, thus facilitating the identification of the main topics of the underlying texts. The use of corpora in terminology opens up the possibility to gather both conceptual and linguistic as well as usage information about the terminological units. It also allows the analysis of concordances that can help to reveal ideological aspects of the terminology involved. The findings may contribute to the knowledge and understanding of European development cooperation among professionals in European and national bodies as well as scholars and teachers in the field of development cooperation.

Keywords European Union, development cooperation, EU-specific terminology, economic terms, corpus-based terminology, corpus linguistics, diachronic corpus, terminological domains, collocations, word clusters, lexical change

1 Introduction

This paper presents some of the results of a diachronic analysis of the English terminology that the European Union (EU) has created and used in the field of development cooperation since 1957, aiming at portraying the conceptual and terminological changes in this field over time.[i] It is based on a corpus of English language EU documents and assisted by linguistic software, viz. WordSmith Tools. The paper is structured as follows: First, the subject area under investigation is outlined and the research questions to be dealt with in the study are posed. Second, the methodology adopted in the study, i.e. a corpus-based approach to terminology, is described and the rationale for using corpora in terminology work is explained. Third, three examples are presented in order to illustrate the ways in which a corpus-based approach can be employed to generate and structure terminological information. Finally, some summarizing and concluding remarks are made, both with regard to the findings of the research and the methodological approach adopted.

2 Research subject: the EU's development cooperation policy

The EU's development cooperation policy has been described as an "understudied area of European politics, despite its economic and political significance" (Arts and Dickson 2004: 3). This view is confirmed by Lister, who points out that books dealing with the EU tend to focus on its internal organisation and neglect its development cooperation policy, although the latter represents one of the Union's first common policies (Lister 1997: 22). Indeed, research in this area appears to be less extensive than one would expect in consideration of the fact that development cooperation has been part of the European project since the very beginning. This also and even more so applies to terminological and linguistic aspects of the EU's development cooperation policy. As a matter of fact, there has not been any work in this field to date that provides more than just a superficial and random compilation of terms, let alone research dealing with the evolution of the terminology since the establishment of a common European development cooperation policy.

2.1 Overview

The EU's development cooperation policy dates back as far as 1957, when the Treaty of Rome was signed to create the European Economic Community (EEC). Whereas nowadays the EU is active in virtually every part of the world, the relationship with a group of countries in Africa, the Caribbean and the Pacific, which would later become the so-called *ACP group of states*, was incorporated in the Community's founding treaties, thus representing the EU's oldest relationship in terms of development cooperation. The EU's close ties with this group of states were maintained via several Conventions, viz. the Yaoundé Conventions of 1963 and 1969 (referred to as *Yaoundé I* and *II*), when the signatory states in the South were still colonies of the European countries, and the Lomé Conventions of 1975, 1979, 1984 and 1989 (referred to as *Lomé I, II, III* and *IV*), signed by a continuously growing number of both European and ACP states. At present, the relations between the EU and the ACP group are governed by the Cotonou Partnership Agreement (referred to as *Cotonou*), which was signed in 2000 (Frisch 2008, Grilli 1993, Hewitt and Whiteman 2004).

2.2 Research questions

The analysis is part of a larger study, which is meant to provide a comprehensive and systematic overview of the terminology the EU has created and used in the field of development cooperation over time, in particular addressing the following research questions. First, it aims at identifying the key concepts that constitute the EU's development cooperation policy along with the terms in which these concepts manifest themselves. Second, it examines the concepts and terms that were used in the various stages of the EU's development cooperation policy, trying to reveal conceptual and terminological changes over the years. Third, it aims to shed light on the ideological agenda which may have had an impact on the terminology used in this field.

Hence, the synchronic perspective providing a record of current terminology is to be complemented by an analysis of the language of earlier eras of European development cooperation policy. According to Sager, such a diachronic view enables the study of language development as it allows for revealing changes in the meaning of lexical items. In addition, it facilitates the identification of conceptual changes which otherwise may have been difficult to recognise (Sager 1990: 132). The need for a diachronic perspective is particularly evident considering the plurality of approaches the EU has followed in development cooperation policy since 1957, which are likely to have found their way into language. Furthermore, looking at the evolution of terminology over the last 50 years may provide insight into the ideological forces behind term formation and terminological choices. The latter issue is addressed by Temmerman (2000: 62), who points out that language is used to express human world perception and conception, and Cabré (1999: 23), arguing that terms convey the culture of a people and reflect a certain view of the world.

The paper is meant to outline the findings of the above-mentioned study on the basis of three carefully selected examples. On the one hand, these examples are intended to highlight the major research results, considering that it is not possible to present the entire spectrum within the scope of this contribution. On the other, they aim at reporting on the methodological approach adopted in the study and addressing the research questions outlined above. Two examples are based on the text of the First Lomé Convention of 1975, the so-called *Lomé I corpus*, the first one focussing on the identification and elaboration of key words, the second one showing how word clusters are classified into terminological domains. The third example deals with changes of key words and word clusters over time, tracking the word *cooperation* from 1957 to date.

3 Methodological issues

The methodology used in this research may be referred to as *corpus-based terminology,* which has been defined as "a working method which explores a collection of domain-specific language materials (corpus) to investigate terminological issues" (Gamper and Stock 1998/1999: 149). Ahmad and Rogers have identified three main tasks for which electronic text corpora may be used to assist terminologists: viz. to capture, validate and elaborate data (Ahmad and Rogers 2001: 740). Thus, corpora support the terminologist throughout a terminology project: in the early stages when the key issues are to identify term candidates (i.e. to capture data) and to provide evidence for and about term candidates (i.e. to validate data) as well as in the core stages when the main tasks are to compile definitions and to select contextual examples (i.e. to elaborate data).

3.1 Benefits of corpus-based terminology

While machine-readable corpora have been accepted in lexicography and language for general-purpose work for some time, their use and popularity in terminography or language for special-purpose work has been lagging behind. Arguing for their use, Bowker (1996: 30–31) points out three main advantages of corpora in terminology, an approach which she refers to as a *corpus-based approach to terminography* or simply *corpus-based terminography*.

Firstly, machine-readable corpora enable terminologists to increase both the speed and the scope of their research. Not only can larger quantities of data be processed more rapidly, thereby exposing terminologists to a larger number of conceptual descriptions, but corpora also allow them to leave out the sections of a text that are terminologically irrelevant and to focus on those parts which are of interest from a terminological point of view (Bowker 1996: 31–32). The latter parts may be referred to as *knowledge-rich contexts*, containing "at least one item of domain knowledge that could be useful for conceptual analysis" (Meyer 2001: 281).

Secondly, a machine-readable corpus makes it easier to investigate syntactic and semantic information as well as linguistic patterns which are difficult to discover when scanning texts manually. The classic example is the study of concordances, also referred to as *key words in context (KWIC)*, in order to identify collocations that may help to improve the use of terms immensely (Bowker 1996: 32).

This argument ties in with the third key strength of corpus-based terminography. In contrast to conventional term banks, which contain hardly any examples of terms in context, corpora present a variety of contexts as well as more extensive contexts which not only provide valuable supplementary information but also help to understand and thus to use terms more effectively (Bowker 1996: 32–33).

The second aspect discussed by Bowker is of particular importance as it highlights the fundamental idea of working with corpora, best described in the words of John Sinclair: "The ability to examine large text corpora in a systematic manner allows access to a quality of evidence that has not been available before" (Sinclair 1991: 4). This ability is relevant for my study in two respects. As mentioned above, information on collocations shows how terms can be used effectively. In addition, concordances enable the study of the relation between language and ideology. In his analyses of texts and text corpora, Stubbs shows that they can reveal patterns of language that institutions use to build up our linguistic, conceptual and ideological view of the world (Stubbs 1996: 59). As Hunston points out, such patterns may convey messages implicitly without the reader being intuitively or consciously aware (Hunston 2002: 109).

3.2 Analysing corpora

The analysis of the corpus compiled for the purpose of this study is assisted by concordance software, viz. WordSmith Tools, a programme for looking at how words are used in texts. According to Hunston (2002: 67), key words are a valuable starting point for analysing specialised corpora. The keyness of a word in a text or collection of texts may be characterised in terms of importance and "aboutness" (Scott 2007: 3–4), in the sense that it indicates that the word is important and shows what the text is about, respectively. Most accurately described by Scott and Tribble, "what the text 'boils down to' is its keyness, once we have steamed off the verbiage, the adornment, the blah blah blah" (Scott and Tribble 2006: 56). By comparing the relative frequencies of words in two corpora, viz. a smaller, more specialised corpus and a larger, more general one, WordSmith generates the key words for the former (Hunston 2002: 68). More precisely, WordSmith compares the word list of the corpus under investigation, i.e. the corpus of EU texts, with the word list of the British National Corpus (BNC), which is used as a reference corpus. For every word in the corpus under investigation, WordSmith contrasts the patterns of frequency and calculates a keyness score. It is advisable to work through the initial list of key words in order to remove noise as well as words which are clearly not relevant from a terminological point of view, viz. grammatical words (e.g. articles, conjunctions, prepositions) and words that are characteristic of the text type under investigation (e.g. *shall, article, paragraph*).

While the resulting list of key words does not represent a final list of terms that require terminological definitions or that are suited for inclusion in a terminological dictionary, it can be useful as it offers an overview of the main subjects covered in the texts and provides the starting point for further analysis, in particular in connection with the calculation of word clusters. As terms are frequently compound words and not single words, it is necessary to identify word clusters, which may be defined as "words which are found repeatedly together in each others' company, in sequence" (Scott 2004–2007: 225). While forming a tighter relationship than collocates, clusters merely represent repeated strings which may or may not turn out to be true multi-word units (Scott 2007: 19). Biber et al. (2000: 989), who refer to clusters as *lexical bundles,* describe them as sequences of words that show a statistical tendency to co-occur in a particular register. The identification of word clusters requires the user to specify the cluster size (between two and eight words) and a minimum frequency, i.e. a minimum number for the cluster to appear in the results.

In this analysis, the key parameters are a cluster size of two to six words and a minimum frequency of five. As the calculation of clusters merely yields sequences of words that tend to co-occur, the results have to be revised. This step includes the elimination of those clusters that are clearly nothing more than repeated strings. For example, WordSmith identifies the word strings *national authorizing, national authorizing officer* and *national authorizing officer shall*, the relevant term clearly being *national authorizing officer*. Likewise, the term *products originating in the ACP States* is of interest from a terminological viewpoint, whereas the word strings *products originating, products originating in, products originating in the* and *products originating in the ACP* are not. Furthermore, related clusters, described by Scott as clusters "which overlap to some extent with others" (2004–2007: 89), have to be identified. Related clusters that form part of more comprehensive clusters are removed unless they are considered to have a meaning that is independent from the meaning of the latter and occur in the corpus at least five times. For example, WordSmith identifies the word clusters *interest rate* and *interest rate subsidy*, both of which represent independent terms. By contrast, the word strings *European Coal, European Coal and, European Coal and Steel* and *European Coal and Steel Community* represent a case where some related clusters have to be removed, with *European Coal and Steel Community* as the only meaningful word cluster. The aim of this procedure is to generate a list of multi-word units which represent term candidates in a sense that they are relevant from a terminological point of view and considered to have a separate meaning.

Along the lines of Mahlberg (2007: 198–199), who establishes groups in order to categorise concordances, the resulting word clusters are divided into several categories, each of which characterises a particular theme prevailing in the corpus texts. Despite being a rough approach to analysing clusters, this step facilitates the identification of the main characteristics and themes of the underlying texts and makes it easier to grasp the plurality of terms which include the key words identified before. Moreover, the establishment of groups enables a focused view of the various word clusters and assists in raising issues and questions that otherwise might not have come to mind. Mahlberg refers to these groups as *functional groups*, admitting that these categories are neither watertight nor absolutely clear-cut (2007: 199). She also points out that the labels introduced for the functional groups represent so-called *ad hoc labels*, which aim at nothing more than showing the typical characteristics of the group (Mahlberg 2007: 199–200). Unlike Mahlberg, who is interested in the discursive features of texts rather than the terminology used, only those multi-word units are categorised that can be considered to have a separate meaning and appear – to varying extents – useful from a terminological angle. Thus, the term *functional groups* will be replaced with the expression *terminological domains*, referring to groups of word clusters that represent the key topics of the underlying texts.

4 Some results

As outlined in Section 2.1., the relationship between the EU and the ACP group was established in the Treaty of Rome and maintained via several Yaoundé and Lomé Conventions. The current development regime is laid down in the Cotonou Agreement, signed in 2000 and revised in 2005. The texts of these agreements form the corpus, on which the analysis of the terminology of the EU's development cooperation policy is based, with the individual agreements representing different subcorpora. An overview of the corpus and the subcorpora is provided in Table 1.

Table 1: Corpus overview

No.	Year of signature	Agreement	Subcorpus	Corpus size
1	1957	Treaty of Rome	Rome	3,806
2	1963	First Convention of Association	Yaoundé I	14,177
3	1969	Second Convention of Association	Yaoundé II	16,434
4	1975	ACP-EEC Convention of Lomé	Lomé I	31,968
5	1979	Second ACP-EEC Convention	Lomé II	53,164
6	1984	Third ACP-EEC Convention	Lomé III	65,004
7	1989	Fourth ACP-EEC Convention	Lomé IV	96,187
8	1995	Agreement amending the fourth ACP-EEC Convention	Lomé IV *bis*	23,960
9	2000	Cotonou Partnership Agreement	Cotonou	112,058
10	2005	Agreement amending the Cotonou Partnership Agreement	Rev. Cotonou	23,144

The following three examples are meant to illustrate the methodological approach used in the research as well as some of the key findings of the study. After discussing the identification and analysis of key words in Section 4.1., the grouping of word clusters into terminological domains is dealt with in Section 4.2., with both examples being based on the Lomé I corpus. Section 4.3. examines changes in the usage and frequency patterns of one of the most important key words, viz. *cooperation*, and its collocates from 1957 to date.

4.1 Dealing with key words in the Lomé I corpus

The Lomé I corpus contains the complete text of the First ACP-EEC Convention of Lomé as well as the attached agreements, protocols and declarations, adding up to approximately 32,000 words. Using WordSmith, the word list of the Lomé I corpus is generated, which results in 2,918 entries. Subsequently, the key words are computed by comparing the Lomé I word list with the word list of the reference corpus. The preliminary set of 348 key words is reduced to 276 key words as irrelevant words and noise have to be removed. The top 60 key words are listed in Table 2.

Table 2: Key words of Lomé I corpus vs. BNC

1	ACP*	21	MEASURES	41	PROGRAMMES
2	STATES	22	INDUSTRIAL*	42	AUTHORITIES*
3	PRESIDENT	23	COMMISSION	43	EXPORTER*
4	COMMUNITY	24	TRADE	44	GUINEA*
5	REPUBLIC	25	MAJESTY	45	SECRETARIAT
6	CONVENTION	26	ECONOMIC	46	EXECUTION*
7	STATE	27	LOME*	47	FINANCIAL
8	COOPERATION	28	FIRMS*	48	AUTHORIZING*
9	PRODUCTS	29	CONTRACTING	49	AFFAIRS
10	MINISTERS*	30	MINISTER*	50	CONSULTATIONS
11	COUNCIL	31	AMBASSADORS*	51	MICROPROJECTS*
12	CUSTOMS	32	CONDITIONS	52	TERRITORIES
13	FINANCING	33	AID	53	NATIONALS
14	ORIGINATING	34	APPLICATION	54	FINANCED
15	MEMBER	35	DEVELOPMENT	55	COMMUNITIES
16	PROJECTS*	36	EUROPEAN	56	SIGNATORY
17	CERTIFICATE*	37	REQUEST	57	AGREEMENT
18	CONCERNED	38	EXPORTING*	58	PROVIDED
19	TECHNICAL	39	IMPLEMENTATION	59	BISSAU*
20	GOODS	40	ACCOUNT	60	DAHOMEY

** new key words in the sense that they did not have the status of key words in any of the former subcorpora*

What may appear as nothing more than a list of words at first glance, turns out to contain a lot of useful information on the key elements of the Lomé I Convention.

First, the table gives insight into the key actors and main issues of ACP-EEC cooperation. Several key words refer to the parties involved in the Convention, including both general expressions (e.g. *states, member* and *territories*), specific countries and groupings (e.g. *ACP*, which is short for *African, Caribbean and Pacific; European, Guinea* and *Dahomey*), legal entities and functionaries of the signatory states (e.g. *president, ministers* and *authorities*) and of the EEC (*Community, Council* and *Commission*). The words *development* and *cooperation* are both among the top 60 key words of Lomé I and can probably be considered the most significant words when it comes to describing the purpose of the Convention: cooperation was deemed an appropriate means of promoting development in the developing countries. The main instruments used to this end were trade and aid, both of which left their mark in the key words of Lomé I. Not only do the terms *trade* and *aid* appear in the top 60, but also numerous other key words are related to trade (e.g. *customs, goods, originating* and *exporting*) and assistance for projects, i.e. aid (*financing, microprojects, implementation* and *execution*).

Second, it is sensible to compare the key words of Lomé I with the key words of its predecessors, viz. the Treaty of Rome, Yaoundé I and Yaoundé II, in order to differentiate between terms that had also been used in the pre-Lomé era and terms that first appeared in Lomé I. The comparison shows that almost 40 per cent of the key words of Lomé I (i.e. 109 out of 276) had already been identified as key words in one of the earlier agreements, whereas the remaining ones (i.e. 167 out of 276) emerged as key words in the Lomé I corpus. It is striking that the ratio of old to new words is different among the top 60 key words of Lomé I, with only 17 of 60 (28 per cent) representing key words that had not appeared in any of the former agreements. Apparently, the top key words include more of those words that cannot be attributed to a particular Convention or stage in the relationship between the Community and the ACP group, but endure more than one generation of agreements, thus being characteristic of ACP-EEC cooperation in general.

Those key words that appeared in Lomé I for the first time (marked with an asterisk in Table 2) may provide information about the new features of the Lomé I Convention, including innovative concepts and instruments, new provisions that are necessary to understand the nature and dynamics of ACP-EEC cooperation and, as in the case of the term *ACP*, references to milestones in the relationship between the Community and the developing countries.

The fact that the term *ACP* had not been a key word in the former agreements – in fact, it had not been used at all – may appear unusual, considering that the Lomé I Convention represented the fourth in a series of cooperation agreements between the Community and the developing countries. Only by looking into the texts of the Conventions and learning more about the origin of the ACP group is it possible to discover the reasons why this is the case. This step involves the search for words and word clusters referring to the Community's contracting parties prior to Lomé, which is based on data from the respective subcorpora, viz. Rome, Yaoundé I and Yaoundé II. Part Four of the EEC's founding treaty, the Treaty of Rome, signed in 1957, established an "Association of the Overseas Countries and Territories". At the time, the developing countries covered by the Association were still colonies of the European countries and were referred to as those "non-European countries and territories which have special relations with Belgium, France, Italy and the Netherlands" (European Communities 1957: Article 131). Accordingly, the word clusters *countries and territories* and *special relations* represent two of the most frequent multi-word units in the Rome corpus. The expression *special relations* clearly represents a euphemistic label for the colonial ties that four of the six European founding members had (Hewitt and Whiteman 2004: 133). The Yaoundé Conventions were Conventions of Association, with the newly independent signatory states in Africa being referred to as the *Associated States*. This is reflected in the Yaoundé I corpus, where *Associated States* and *Associated State* appear among the most frequent word clusters and the word *Association* ranks fourth in terms of keyness. The entry of the United Kingdom (UK) into the EEC in 1973 produced a massive extension of the geographical scope of the Community's development cooperation policy, as the former British colonies had to be taken into consideration. Twenty independent Commonwealth countries in Africa, the Caribbean, the Indian and the Pacific Ocean were invited to participate in the Community's negotiations with the Associated States on a new Convention of Association, namely the Convention that was to follow Yaoundé II (European Commission 1973: 5–6). According to Dieter Frisch, former Director General for Development at the European Commission, the English-speaking African states disliked and rejected the word *association* since, in their opinion, it clearly indicated "a second class membership of a post-colonial nature" (Misser 2008: 12). The fact that it was finally dropped was seen as a major step forward and paved the way for the conclusion of Lomé I. Hewitt and Whiteman note that "the linguistic change was significant here; that is, the elimination of the hated expression 'association', so redolent of neo-colonialism" (2004: 140). After the Convention of Lomé I was signed by nine EEC members and an enlarged group of 46 developing countries in February 1975, the non-European signatories to Lomé I joined forces and entered into the Georgetown Agreement, creating the African, Caribbean and Pacific, or *ACP*, group of states as such (Percival 2008: 10). This brief digression on the history of ACP-EEC cooperation is meant to illustrate the idea of using the results of the corpus analysis as a starting point for a detailed investigation of words and word clusters and, consequently, of the concepts and issues involved. The emergence of the term *ACP* has given rise to a more comprehensive analysis of the terms that were used to refer to the Community's contracting parties prior to Lomé, which in turn reveal information on the relationship between the EEC and these countries at the time.

4.2 Grouping word clusters into terminological domains

The analysis of the Lomé I corpus includes the generation and study of its word clusters. On the basis of the key words of Lomé I and considering the parameters (i.e. 2–6-word clusters with a minimum frequency of five), WordSmith generates a myriad of word strings, which, by eliminating noise and repeated strings, are reduced to 118 multi-word units. Table 3 shows the top 35 word clusters, in the order of frequency of occurrence.

Table 3: Word clusters of Lomé I corpus

No.	Terminological domain	No. of word clusters
1	ACP STATES	320
2	ACP STATE	114
3	COUNCIL OF MINISTERS	85
4	MEMBER STATES	59
5	HEAD OF STATE	50
6	TECHNICAL COOPERATION	32
7	CUSTOMS AUTHORITIES	28
8	MOVEMENT CERTIFICATE	28
9	EUROPEAN COMMUNITIES	26
10	UNITS OF ACCOUNT	25
11	CONTRACTING PARTIES	24
12	COMMITTEE OF AMBASSADORS	19
13	FINANCIAL AND TECHNICAL COOPERATION	19
14	MEMBER STATE	18
15	COUNCIL OF ACP MINISTERS	17
16	COUNTRIES AND TERRITORIES	16
17	EUROPEAN ECONOMIC COMMUNITY	15
18	COUNCIL OF THE EUROPEAN COMMUNITIES	14
19	INDUSTRIAL COOPERATION	14
20	INDUSTRIAL DEVELOPMENT	14
21	PROJECTS AND PROGRAMMES	12
22	EXPORT EARNINGS	12
23	MINISTER FOR FOREIGN AFFAIRS	12
24	STATE SECRETARY	12
25	SECRETARIAT OF THE ACP STATES	11
26	IMPORTING STATE	11
27	ORIGINATING PRODUCTS	11
28	INVITATIONS TO TENDER	10
29	MINISTER OF FINANCE	10
30	PRESIDENT OF THE REPUBLIC OF THE GAMBIA	10

31	CONSULTATIVE ASSEMBLY	9
32	EXCEPTIONAL AID	9
33	DELIVERY PERIOD	9
34	ECONOMIC AND SOCIAL DEVELOPMENT	9
35	RULES OF PROCEDURE	9

These word clusters can be categorised into several terminological domains, each of which represents a particular theme of the Lomé I Convention. Not only does the establishment of terminological domains facilitate the processing of the data, it also and primarily assists in working out the main topics prevailing in the corpus and, thus, in ACP-EEC cooperation.

Several word clusters are clearly related to the contracting parties, including the terms *ACP States* and *Member States*. Others refer to the institutions that were involved in the Convention (e.g. *Council of the European Communities* and *Council of ACP Ministers*) as well as the joint institutions set up by Lomé I (e.g. *Council of Ministers* and *Committee of Ambassadors*). A number of word clusters are associated with the key elements of the Convention, viz. trade and aid. For example, the terms *customs authorities, movement certificate* and *originating products* are related to trade; the expressions *projects and programmes, invitations to tender* and *exceptional aid* are linked to the provision of financial resources. Furthermore, various types of cooperation (e.g. *technical cooperation* and *industrial cooperation*) and forms of development (e.g. *industrial development* and *economic and social development*) are frequently mentioned in the Convention.

Whereas some of the terminological domains arise naturally from the data on closer inspection, there are also multi-word units that appear hard to classify for they do not seem to fall into any particular category. Moreover, word clusters may also relate to more than one domain, making classification a somewhat delicate and difficult task. Considering that decisions may not always be clear-cut and the categories are simply meant to provide a broad overview of the topics covered in the underlying texts, the aim is to arrive at a set of terminological domains that cover all word clusters identified in the corpus.

In this example, the word clusters of Lomé I have been classified into nine terminological domains, each of which characterises a specific topic of the Convention. While these domains cover more than 90 per cent of the clusters, a few multi-word units defy categorisation and are therefore combined and labelled as *Other*. Table 4 lists the terminological domains of the Lomé I corpus.

Table 4: Terminological domains of Lomé I corpus

No.	Terminological domain	No. of word clusters
1	Domain 1 – Parties to the contract	7
2	Domain 2 – Institutions of the Convention / the ACP / the EEC	11
3	Domain 3 – Types of cooperation	7
4	Domain 4 – Types of development	3
5	Domain 5 – Aid-related aspects	20
6	Domain 6 – Trade-related aspects	15
7	Domain 7 – Internal aspects of the Convention	4
8	Domain 8 – Countries involved	7
9	Domain 9 – Bodies / officials of individual countries	37
10	Other	7
	Total number of word clusters	118

4.3 Tracking the word "cooperation" *over time*

The word *cooperation* represents one of the most frequent and stable words used by the Community in the area of development cooperation. While the word *cooperation* per se has endured various generations of Conventions, the adjective collocations connected to *cooperation*, indicating different types of cooperation, have changed considerably over time. Table 5 illustrates the adjectives that co-occur with the noun *cooperation* in the various subcorpora at least five times.

Table 5: Adjective collocates of the noun cooperation*

Collocate	Rome	Yaoundé		Lomé				Cotonou
		I	II	I	II	III	IV	
	1957	1963	1969	1975	1979	1984	1989	2000
technical	-	x	x	x	x	x	x	x
financial and technical	-	-	x	x	x	x	-	-
industrial	-	-	-	x	x	x	x	-
regional	-	-	-	x	x	x	x	x
interregional	-	-	-	x	x	-	-	-
trade	-	-	-	x	x	x	x	x
administrative	-	-	-	x	x	x	x	x
close	-	-	-	-	x	x	x	x
agricultural	-	-	-	-	-	x	x	-
international	-	-	-	-	-	x	x	-
cultural and social	-	-	-	-	-	x	x	-
ACP-EEC	-	-	-	-	-	x	x	-
ACP-EC	-	-	-	-	-	-	-	x
development	-	-	-	-	-	x	x	x
development finance	-	-	-	-	-	-	x	x
decentralized	-	-	-	-	-	-	x	x
economic and trade	-	-	-	-	-	-	-	x
cultural	-	-	-	-	-	-	-	x
financial	-	-	-	-	-	-	-	x

* *Both the Lomé IV bis and the revised Cotonou corpus are not part of this analysis, as the respective texts represent amendments to former agreements, viz. Lomé IV and Cotonou respectively.*

Although Part Four of the Treaty of Rome, setting up the Association of the European colonies, was the predecessor of the Conventions of Yaoundé and covered the same elements, viz. trade and aid, the word *cooperation* was not mentioned at all. Only in Yaoundé did the word *cooperation* appear, mainly in connection with *technical cooperation* and *financial and technical cooperation*. The latter was used as the official term to refer to the provision of financial resources by the Community and included, inter alia, activities in the field of general technical cooperation. While *technical cooperation* appeared both within *financial and technical cooperation* and as an independent term, *financial cooperation* did not exist.

Various forms of cooperation were mentioned throughout Lomé I and II, referring to familiar as well as new concepts. For example, industrial cooperation and administrative cooperation represented completely new subjects of the Community's development cooperation policy. The concepts 'trade cooperation', 'regional cooperation' and 'interregional cooperation' had existed before, yet they had not been labelled as such. The most frequently used collocations were again *technical cooperation* and *financial and technical cooperation*.

In Lomé III, the concept 'interregional cooperation' was subsumed into the concept 'regional cooperation'. Agricultural cooperation, both the term and the concept, was not a novelty of Lomé III, but gained in importance and visibility since it was dealt with more extensively in a separate section. The term *ACP-EEC cooperation* was introduced, representing a somewhat general way of referring to the relations between the Community and the ACP group. Strangely enough, Lomé III was the first of the Conventions to actually mention the term *development cooperation*, which probably best describes the purpose of the agreements. In the framework of the Lomé Conventions, the terms *ACP-EEC cooperation* and *development cooperation* can be considered synonyms. While *ACP-EEC cooperation* indicates the participating groups of countries, *development cooperation* accentuates the objective of their joint efforts.

The key change in Lomé IV was the fact that the term *financial and technical cooperation* was replaced with *development finance cooperation*. Development finance cooperation included technical cooperation, which still existed as an independent term, and the provision of financial resources. Although *development finance cooperation* was coined only five years later than *development cooperation*, the two terms seem to belong together and complement each other. Development cooperation, i.e. cooperation aimed at the development of the ACP States, has to be supported by development finance cooperation, i.e. financial and technical assistance, to make development possible.

Several forms of cooperation have been abandoned under Cotonou. The term *development finance cooperation* has been maintained, its key elements being technical cooperation and the provision of financial resources. While the former has always been part of the Community's terminology in this field, the latter is increasingly being referred to as *financial cooperation*.

5 Conclusions

The aim of this article has been to illustrate the use of corpora in order to identify and explore terms and concepts. Based on the terminology that the EU has created and used in the field of development cooperation, it is meant to show how a corpus-based approach can be adopted in a diachronic analysis of the terminology in a particular field. A corpus-based approach to terminology has been chosen for it is considered to offer several advantages over traditional, paper-based approaches. In fact, the idea of looking at terms in a variety of contexts assists in gathering information about and developing an understanding of the concepts involved. While the application of WordSmith tools to generate key words and word clusters can be considered standard practice, the analysis is enhanced by the establishment of terminological domains, which represents a useful way of organising and structuring terms. The investigation of corpora from different time periods facilitates the identification of terminological and conceptual changes and helps to account for the historical background as well as potential ideological forces at work in order to explain linguistic phenomena. ◆

Notes

[i] The author's doctoral thesis will be published by Peter Lang in 2010.

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Judith Kast-Aigner
WU Vienna,
Department of Foreign-Language Business Communication
Institute for English Business Communication
judith.kast-aigner@wu.ac.at

The development of French marketing terms: Processes of term formation and semantic change (1960–2008)

Regina Göke

Abstract This contribution presents selected results of a larger study whose main interest is to find out how French marketing terminology has developed from the beginning of the discipline in France in the 1960s until 2008. The diachronic study is based on a text corpus, which consists of ten samples, each representing a period of four or five years, of the specialist journal *Revue Française du Marketing* (RFM). An exemplary analysis reveals how the progress in marketing manifests itself linguistically in the creation and borrowing of terms. With the aid of corpus linguistic measures and instruments (WordSmith Tools 5.0), we investigate how basic terms like the term *marketing* itself or the concept of communication are adopted and come into fashion. A further look at the use of these and other terms leads to some interesting results concerning processes of term formation and semantic change.

Keywords terminology, corpus linguistics, term formation, lexical semantics, semantic change, marketing, French

1 Introduction and research questions

Diachronic studies are rather rare in terminological research. However, for the understanding of the state of the art of a terminology it is very useful to see how it has developed. This general issue can be followed by taking different perspectives. On the one hand it can be treated by observing the most frequently used terms at different stages of the discipline, and on the other hand by investigating the context of terms and analyzing their use over time. This article is based on a larger study whose main interest was to find out such quantitative and qualitative dynamics of the French marketing terminology since the beginning of marketing in France in the 1960s.[1] The database of that study has been updated until 2008 for the purpose of this article. The following descriptions can be regarded as a selective summary of the results of the study.

In detail, we focus on three research questions. First of all, we will take a quantitative perspective and investigate how the basic marketing terminology has grown. We will find out when the terms are used for the first time and how their appearance can be explained by the scientific context. Then, we will pick out two of the most important marketing terms, namely *marketing* itself and *communication*, and explore in more detail how their use has developed over time. In order to do this, we consider their frequency at different times as well as synonyms and aspects of semantic change. Finally, we will take a morphological point of view and show what the most important tendencies of term formation are in the French marketing language.

2 Corpus and Methodology

The French marketing journal *Revue Française du Marketing* (RFM) published by the ADETEM[2] constitutes the sampling frame of the study. It has been chosen for two reasons: First, the RFM is the most important and comprehensive marketing journal in France, and second, it was founded in 1956. Thus, it seems to represent the concerns and activities of the French marketing community since the beginning of the discipline quite well. The database consists of two corpora. The first corpus is composed of eight sub-corpora, each representing a period of five years of the RFM (Hänchen 2002a: 64–66). In order to have an equally distributed sample, these sub-corpora consist of each 15th page of the journal. More than 1,100 pages were scanned and transformed into a machine-readable format (about 600,000 tokens). Since the beginning of this century, the RFM has also been available in a digital format and was therefore easier to handle. Hence, corpus 2 includes all articles published between 2001 and 2008 (about 1,300,000 tokens) and it has the advantage to be not only representative but also complete. It consists of two sub-corpora, representing a period of four years (2001–2004, 2005–2008).[3] For the quantitative and qualitative analyses, we use the software program *WordSmith* in its latest version (WordSmith 5.0 (2008)). By means of the *Wordlist* and *Concordance* tools we can find out the basic marketing terms for each sub-corpus and observe how often and in which way they are used (Hänchen 2002a: 69–74).

3 How does a terminology grow?

To answer the first research question already mentioned above, we initially determine the basic marketing terms for each sub-corpus. As marketing term we consider one-word terms and two- or three-word combinations that denote more or less specific concepts of the discipline and are, in our opinion, habitually used by marketers (e.g *achat, agence de publicité, campagne publicitaire, chiffre d'affaires, commercialisation, comportement d'achat, étude de marché, image de marque, leader, marketing, marque de distributeur, sponsoring, positionnement, parrainage,* etc.) (see Hänchen 2002a: 19–25). As basic we regard marketing terms with a certain frequency in at least one of the sub-corpora. The frequency index (FI) corresponds to the relative frequency[4] multiplied by 100. It gives us quantitative information about the use of a term. A high frequency index means that a term often recurs in the texts (e.g. *marketing:* 24 FI in the sub-corpus 2005–2008, *client:* 17 FI in the sub-corpus 1985–1989, *marketing relationnel:* 0.6 FI in the sub-corpus 2001–2004). The minimal frequency of a basic term has been fixed at 0.2 for one-word terms and 0.02 for two and three-word terms. The determination of the basic terms results in a list of nearly 500 basic marketing terms. If we take a look at the number of basic terms that occur in the different sub-corpora, we come to the result shown in Figure 1. We see that since the beginning in the 1960s until the end of the 1980s there was a regular increase in terms. From the late 1980s on the number of terms tended to stagnate. We can interpret this development as the quantitative expression of the process of the discipline growing and establishing itself. At the beginning the discipline managed with only a small number of terms. Over time, more and more terms were created or adopted in order to denote new marketing-specific concepts.

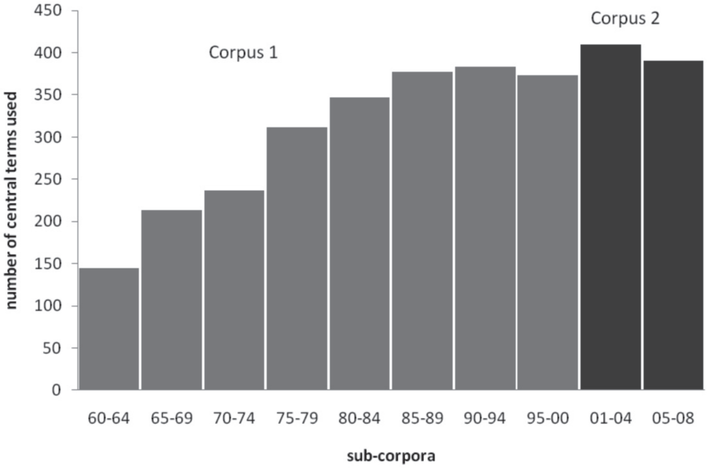

*Figure 1: Occurrences of basic marketing term*s

To investigate this evolution in detail, we must take a closer look at the emerging terms at different stages. At the beginning, in the 1960s, we find terms denoting basic scientific, economic, and psychological concepts like *attitude, chiffre d'affaires, efficacité, ménage, motivation,* or *rendement.* We also find very basic marketing terms (e.g. *client, leader, marketing, marque, publicité,* or *segmentation*). In the 1970s, terms like *centre commercial, discounter, grande surface,* and *hypermarché* came along with the creation of new forms of distribution (Léon 1973: 3, Meffert 1998: 5, Villemus 1998: 23). In addition, French companies adopted the marketing concept with a certain delay to the United States and were creating new departments and jobs (Usunier 1992: 28, Kotler/Dubois 1997: 686). This evolution is reflected in the corpus by the emergence of terms like *chef de produit, département marketing, responsable marketing,* or *service marketing.* Finally, through the influence of Philip Kotler, one of the most important American marketing experts, the marketing concept was also extended to the non-commercial sector, so that new forms of marketing like *marketing social, marketing bancaire,* or *marketing electoral* appeared (Kotler 1967, 1972a, 1972b, 1975, etc.). In the following decade of the 1980s marketing was characterized by more competition on the markets and therefore more aggressive marketing practices (Pepels 1996: 575, Meffert 1998: 258). The use of the war metaphor in the following quotation gives us an impression of the aggressive mood at that time. As we can see here the development of strategies in order to gain new customers became more and more important:

(1) Constatons tout d'abord que la guerre commerciale est permanente entre des concurrents qui visent les mêmes territoires et ne veulent pas convenir d'un partage des marchés. Chaque entreprise a besoin d'un espace vital; elle doit s'y faire admettre et désirer dans les relations de services qu'elle entretient; on peut se développer sur un territoire défini ou se déplacer sur des segments nouveaux. Les conflits d'influence et de compétition sont inévitables. [...] le marketing est un système de Recherche, de Stratégie et d'Action pour permettre à une entreprise de prendre la position la plus avantageuse possible sur certains marchés, qu'elle a choisis pour cibles, et face aux stratégies de conquête et aux manœuvres d'opposition des divers concurrents. (Serraf 1981: 147)

Marketers addressed the potential customer more directly and practiced more public relations. Terms reflecting this new directness as well as the strategic way of thinking start to occur at this time in the corpus (*avantage concurrentiel, communication directe, marketing direct, marketing stratégique, marché concurrentiel, stratégie (de) marketing, stratégie de communication, stratégie de marché, stratégie d'entreprise, pénétration des marchés, position concurrentielle*). Another characteristic of the 1980s was the beginning of globalisation. Marketing had to react and created new concepts like 'marketing culturel', 'marketing global', or 'marque globale' (Pepels 1996: 575, Meffert 1998: 1142). In the 1990s marketing tried to get even closer to the customer and to stay in contact with him. This implies that the company focuses its activities and products more on consumer demand. As a consequence, we find terms like *fidélisation*, *marketing relationnel*, and *orientation client*. They emerge in the context of the companies' intention to bind customers to them and their products for a longer term. Also ecological aspects became more interesting, as marketing and ecological ideas found their way into the discipline (e.g. *éco-marketing* or *éco-strategy*). With the beginning of the 21st century, the Internet became a more and more important marketing instrument, so that a lot of new terms were created in order to denote the virtual market and its actors. A considerable number of terms (e.g. *achat sur ligne, commerce électronique, cyber-consommateur, e-commerce, e-marque,* etc.) emerged and several competed with each other. Finally, we can note that marketing research paid more attention to ethical aspects. Terms like *commerce équitable* and *développement durable* appeared.

4 How does the use of a term develop over time?

In addition to the above investigation of the general dynamics of a terminology in relation to the evolution of the field as such, it is also interesting to explore the use of single marketing terms. By means of *Wordlist* we can observe the relative frequency in the different sub-corpora, and so we get some indications for the "life-cycle" of a term. For example, we can find out when it occurs for the first time or comes into or out of fashion. In order to verify this purely quantitative information, we have to look at the contexts more closely. By means of the *Concordance Tool*, processes of term formation[5] or possible semantic changes can be ascertained. In the following section we will concentrate on two key terms of marketing, i.e. *marketing* itself and *communication*.

4.1 The term marketing

Figure 2 shows the frequency indices of the term *marketing* in the different sub-corpora.

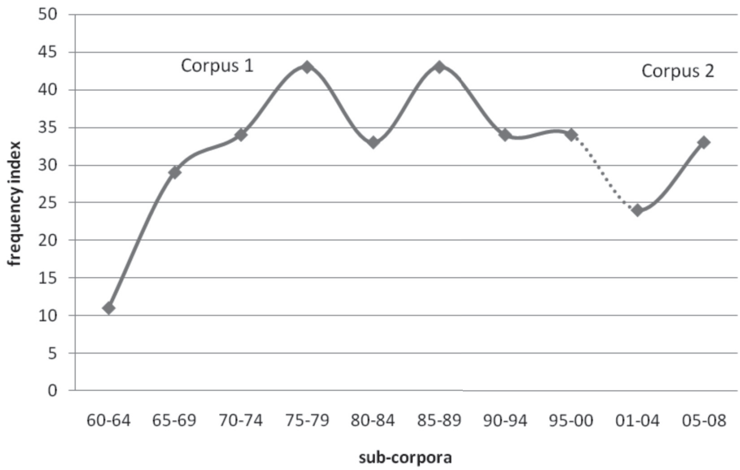

Figure 2: Use of marketing

We see that the use of the term increases considerably in the 1960s and 1970s, and fluctuates slightly at a relatively high level from the 1980s. This quantitative development suggests that the English term *marketing* has established itself in the French marketing language. One way to verify this suggestion is to compare the evolution with the use of terms which have been considered as possible equivalents. These are *vente, étude de marché, commercialisation,* and *mercatique* (Figure 3).

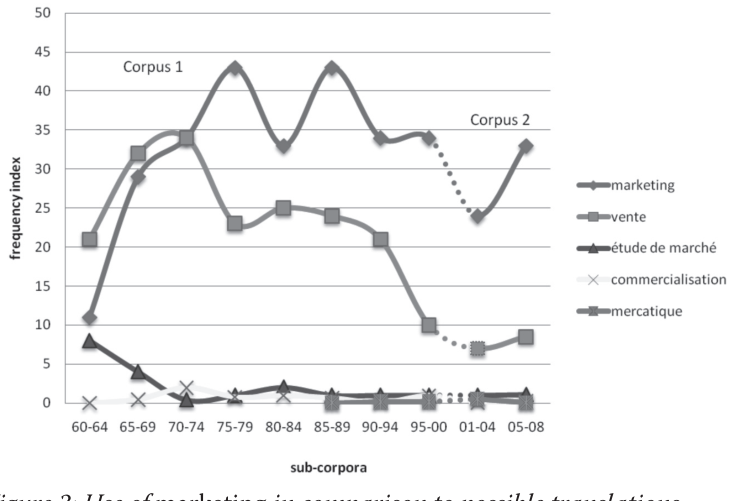

Figure 3: Use of marketing *in comparison to possible translations*

In the 1960s, salesmen and linguists were thinking about the meaning of *marketing* and wondered whether the term *vente* could not be established as a possible French translation. However, in the corpus we see very clearly that *vente* had been quantitatively overtaken by *marketing* in the 1970s, and that the use of the word has shown a continuous decline until now (see Figure 3). In addition, both the concordance analysis of *vente* and expert comments provide evidence that it does not include all the aspects of meaning covered by *marketing* (see (2)).

(2) La définition du dictionnaire est une chose, les sens véritables d'un mot à travers son utilisation dans la langue en est une autre et lorsque nos amis américains disent marketing, si nous leur répondions vente ou distribution, nous ne parlerions pas du même concept, car le mot vente n'est en France chargé d'aucune des images que reflète le mot marketing. (Fournis 1969: 4)

Also *étude de marché* has been discussed as a possible synonym. But again, we note that the relatively high frequency index in the 1960s fell continuously until the 1970s and has stayed there until today (see Figure 3). The editor of the RFM himself gives us a further hint for the greater acceptance of *marketing* in comparison to *étude de marché*. The abbreviation ADETEM originally meant *"Association pour le développement des techniques d'exécution et de l'exploitation des études de marché"*. In 1970 the name was changed into *"Association Nationale pour le développement des techniques de marketing",* and since 1997 the organization is simply named *"Association Nationale du Marketing"* (Hänchen 2002a: 105–106). We thus see that the relatively long description paraphrasing the activities of modern marketing was replaced and is now fully captured by *marketing*.
As already mentioned above, marketing experts and terminologists also deliberated about the meaning of the word *commercialisation,* and in the 1960s the Académie Française proposed to use the term *commercialisation* instead of *marketing* (see (3)).

(3) Une décision récente de l'Académie française a nié le droit de citer dans la langue française à l'expression marketing et on lui a préféré celle de commercialisation. Mon intention n'est pas (je n'en aurais pas le droit!) de discuter cette prise de position, dictée certainement par des raisons, très valables et honorables, de pureté linguistique et de traditions culturelles. Je crains cependant que cette mise au point n'ait de fâcheuses implications sur le plan de formulation des concepts et celui des principes qui doivent inspirer et instruire la philosophie et la pratique de la direction de l'entreprise moderne et dynamique en France. (Teresi 1967: 5)

A look at the corpus proves that *commercialisation* did not replace *marketing* either. A context analysis of the corpora shows that *commercialisation* is used in the same way as its English equivalent *commercialization* and continues designating its own concept (Kotler/Dubois 1998: 537). The following quotations confirm that *commercialisation* only represents the last part of the whole process usually meant by *marketing*. It is used to designate the process of introducing a new product into the market.

(4) La phase exécution peut comporter des activités complémentaires dans le domaine de la mise au point du produit ou de nouvelles études de marché avant une commercialisation définitive. (Urban 1970: 73)

(5) Cette approche nous semble similaire à celle qui distingue le marketing amont tourné vers la production et le marketing aval tourné vers la commercialisation. (Michon 1988: 7)

In 1971, the term *mercatique* was created (< lat. *mercat(us)+ique*) and proposed by the first official terminology commission introduced by the *Ministère de l'Économie et des Finances* in 1970. Nevertheless, *mercatique* was very rarely used afterwards. In 1987, the *Commission de terminologie économique et financière* officially prescribed the usage of *mercatique* instead of *marketing*. Yet again, obviously unimpressed by this measure, authors in the RFM continued using *marketing*, so that we can only find very few instances of *mercatique* in the marketing journal. We thus can conclude that, despite the official efforts, the neologism *mercatique* has only partly been accepted by French marketers.

4.2 The term communication

In Figure 4 we see that the term *communication* experienced an enormous increase in use between 1970 and 1990.

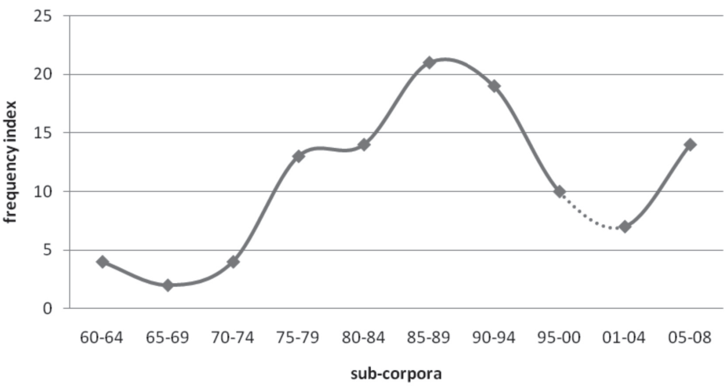

Figure 4: Use of communication

A possible explanation of this considerable change is that the general concept of communication was adopted and transformed into a very crucial concept of the discipline. In order to verify this hypothesis we have to analyze the semantic and conceptual development of the term. In the 1960s communication theory was brought into the marketing discipline. Marketing experts were dealing with communication models and applied them to the sales process (Décaudin 1995: 6). From this moment on they regarded selling mainly as a problem of communication (see (6)).

(6) Si la production en matière de communication intéresse spécialement les directeurs de marketing, c'est que la vente conçue dans l'optique du marketing est essentiellement un problème de communication. (Fournis 1964: 11)

Later on in the 1970s the communication concept already referred to a whole set of measures, that is, not only advertising but also sales promotion, personal sales or public relations. Hence, the term *communication* became a universal key term of modern marketing. It has a very wide and sometimes fuzzy meaning with more or less spontaneous semantic extensions. For example, from the 1980s on we find passages in which *communication* seems to mean 'message', as we can see in (7). Additionally, we come across an example of an elliptical use of *communication* in which it refers to a company's communication department (see (8)).

(7) Donc, une des techniques que nous commençons à utiliser aux Etats-Unis, est l'emploi des journaux pour atteindre nos prospects – leur forcer la main pour qu'ils nous disent s'ils sont intéressés par nos messages, nos communications. (Michon 1984: 92)

(8) Ainsi les sociétés tendent à se doter de structures spécifiques de gestion des actions de parrainage publicitaire, leur budget étant rattaché à la direction de la communication, du marketing ou même à la direction générale. (Bigle/Roskis 1996:13)

Furthermore, it has to be mentioned that in contrast to the understanding of 'communication' in linguistics, 'communication' in marketing is unidirectional, i.e. not the exchange but the purposeful transmission of information to the recipient (customer) is of prime importance. This marketing-specific meaning of *communication* is underlined by the immediate context. In the following sentences it collocates, for example, with possessive pronouns and with verbs that imply directed actions (*axer sa communication* or *positionner sa communication*). It is suggested that 'communication' is something belonging to someone who is able to control it completely (see (9) and (10)).

(9) Sur les sept magasins étudiés, un seul axe sa communication sur cet aspect. (Kalika 1984: 74)

(10) En fonction de son image de marque et des ses objectifs, il reste à l'industriel à positionner la communication de son produit en fonction des courants auxquels il s'apparente le mieux. (Cathelat/Matricon 1976: 53)

5 What are the most important tendencies of term formation?

We now come to the last research question to be treated in this article: what are the most important tendencies of term formation? In order to answer this question we will analyze new basic terms in the different sub-corpora from a morphological and semantic perspective. Additionally, we will investigate the impact of French terminological politics that has always tried to eliminate anglicisms.

A high percentage of basic terms[6] in the sub-corpora of the 1960s are one-word terms that are also part of everyday language and denote very basic concepts of marketing (e.g. *achat, besoin, client, clientèle, magasin, vente*, etc.). Other terms of the 1960s are special language terms that have been adopted from related disciplines, such as for example general business sciences, psychology or statistics (e.g. *commerce, consommateur, échantillon, efficacité, fournisseur, habitude, ménage, panel,* etc.). Within the two- and three-word terms we find more specific noun compounds with the preposition *de* inserted before the modifier (e.g. *comportement d'achat, leader d'opinion, promotion des ventes, or segment de marché*). Other noun compounds consist of a noun and an adjective (e.g. *message publicitaire, budget publicitaire, grand magasin, magasin populaire,* etc.). In general, most of these early compounds or word combinations are loan translations from English.

In the 1970s more and more noun compounds of the first type lost their preposition, in particular those which have very basic terms as modifiers (e.g. *budget marketing, concept produit, direction marketing, étude marketing, recherche marketing,* and *stratégie produit*)[7]. In 1971 and 1973, the first proposals of the official terminology committees were made. For example, in order to eliminate *ing*-forms, a committee suggested saying *franchisage* for *franchising* or *publipostage* for *mailing*. Analyzing the corpus, we see that there are only two occurrences of *franchisage*. But instead of *franchisage* the English term *franchise* recurs regularly in the corpora from the 1980s on. One can only speculate about the reasons for the greater acceptance of *franchise*. Perhaps French marketers preferred it to *franchisage* because of its shortness or the correspondence to the English term *franchise,* which also exists. Looking for the term *publipostage* we encounter relatively few instances of it in the period between 1970 and 2000. The anglicism *mailing* is used much more frequently. However, even though the use of mailing is still more frequent, *publipostage* occurs quite regularly in the latest corpora from 2001 until now. In the end, the word *publipostage* seems to find its way into the French marketing language.

From the late 1980s until today we notice a very strong tendency to form noun-noun compounds. The semantic relations between the nouns tend to be much more complex than they used to be before. First of all, there are appositional noun-noun compounds in which the two nouns correspond to each other and refer to the same referent (e.g. *client revendeur, enfant consommateur,* and *ménage acheteur*). Secondly, we find a great number of left-headed noun-noun compounds with multifaceted semantic relations to the modifier: *capital marque, marchand internet, marketing internet, marque ombrelle, marque sponsor, orientation client, orientation marché, plan d'action clientèle*. The semantic relations within these compounds cannot be explained by a simple is-a-equation. For example, in *capital marque* and *marque sponsor* the relations are specifications that could also be expressed by the insertion of the preposition *de*. Their semantic structure corresponds to the above-mentioned examples in which the modifier seems to have adjectival character (e.g. *budget marketing, concept produit,* etc.). In *marchand internet* and *marketing internet* the semantic relation can be regarded as local and could be paraphrased by *marchand sur internet* or *marketing sur internet*. In *marque ombrelle* there is a metaphorical relation between the two elements (*la marque est comme une ombrelle*). In *orientation client, orientation marché* and *plan d'action clientèle* the relations are those of direction or concern (*orientation vers le client, orientation vers le marché, plan d'action concernant la clientèle*). Thirdly, within the recent basic terms of the corpus, we find *maîtresse marque* as a translation of *master brand,* a term used to describe a certain type of global brand which is based on a powerful proposition or myth (Calver 2004: 22). *Maîtresse marque* is an example of a rather unusual right-headed noun-noun compound (see (11)). We should wait and see whether this marks a new trend of marketing term formation in French or not.

(11) Les Maîtresses Marques comme Nike, Sony et Coca-Cola définissent leur catégorie et sont fondées sur des mythes ou des histoires puissantes (par exemple, Levi's et le thème de l'indépendance, ou celui de la relation aux autres chez Nokia). (Baker/Sterenberg/Taylor 2004: 67)

Apart from the noun-noun compounds, we have noticed prefixation as a very common pattern of term formation. Prefixation became popular from the 1990s onwards and especially in the last corpus we find a lot of prefixations (e.g. *cyberconsommateur, éco-marketing, macro-marketing, multi-produits, super-marque* or *e-fidélité, e-marque*[8]).

The following table summarizes the described tendencies of term formation in the French marketing language described above (see Table 1).

Table 1: Tendencies of term formation

1960-	**1970-**	**1985-**
N de N	**N (de) N**	**N N**
comportement d'achat (1960-)	direction marketing (1970-)	client revendeur (1985-)
décision d'achat (1960-)	recherche marketing (1970-)	enfant consommateur (2005-)
désir d'achat (1960-)	budget marketing (1975-)	ménage acheteur (2001-)
étude de marché (1960-)	étude marketing (1975-)	marque enseigne (2005-)
méthode de marketing (1965-)	stratégie produit (1980-)	
promotion des ventes (1960-)	concept produit (1980-)	
segment de marché (1965-)	service clientèle (1990-)	
N ADJ		**N** N
activité commerciale (1960-)		orientation client (1990-)
message publicitaire (1960-)		relation client (1990-)
budget publicitaire (1960-)		orientation marché (2001-)
campagne publicitaire (1960-)		plan d'action clientèle (1995-)
clientèle cible (1965-)		marque ombrelle (1995-)
		marque sponsor (1995-)
		capital marque (2001-)
		marketing internet (2001-)
		marchand internet (2005-)
		N **N**
		maîtresse marque (2004)
		Prefix N
		macro-marketing (1990-)
		maximarketing (1990-)
		éco-marketing (1995-)
		multi-produit (1995-)
		mono-produit (1995-)
		multi-marque (1990-)
		super-marque (2001-)
		cyberconsommateur (2001-)
		cyberacheteur (2001-)
		cybermarché (2001-)
		e-fidélité (2005-)
		e-marketing (2005-)
		e-commerçant (2005-)
		co-marquage (2005-)
		pseudo-parrainage (2005-)

A further question that should be addressed in the context of term formation in the French marketing language is the use of anglicisms. How many and which types of anglicisms are really used in (written) marketing language?[9] To answer this question we have determined the number of anglicisms within the basic marketing terminology and found out that 63 % of the terms are anglicisms. This seems to be a rather high percentage. But if we take a closer look at these anglicisms, we see that most of them, that is 76 %, are loan translations like *chaîne de distribution (distribution channel), image de marque (brand image),* or *segmentation du marché (market segmentation)*. 17 % are mixed forms, with elements of both languages like *marketing politique, management du marketing,* or *média-planning,* and only 7% are direct loans like *leader, mailing, marketing,* or *sponsoring* (see Figure 5). Hence, we can say that there are not as many direct loans in written French marketing language as might have been expected.

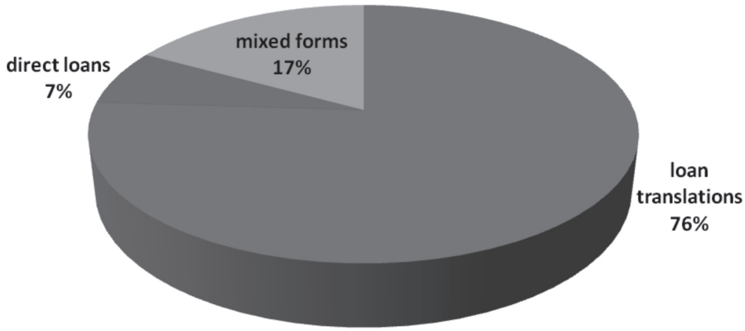

Figure 5: Types of anglicisms within the basic marketing terminology

6 Final remarks

To conclude, we want to add some brief comments. First of all, the presented study enriches LSP research by a new perspective. It combines, one could say, synchrony and diachrony by following the development of a terminology in order to give an overview of its current state. It was instructive to see how a terminology of a relatively young discipline like marketing grows and how the emergence of terms coincides with the development of the field. It would be interesting to see whether the described process also applies to other disciplines. Second, we think that the quantitative approach in combination with a qualitative analysis of the usage of certain terms has been successful and led to some remarkable results concerning the formation and lexicalization of terms in a special language. For example, we were able to follow the processes of establishment of the key-terms *marketing* and *communication* and to detect the main tendencies of term formation in different periods. Finally, the study has so far resulted in a corpus-based French marketing glossary with about 600 marketing terms and collocations that should also be helpful for translators and marketers (Hänchen 2002a: 157–185). Because of the corpus-based approach, users of the glossary can be sure that it quite representatively reflects the state of the art of current French marketing language. ◆

Notes

[1] It has been published in German in Hänchen (2002a).

[2] Association Nationale du Marketing.

[3] However, in the following analyses we have to consider these differences in size. For example, they may be responsible for the slightly unproportional increase in basic terms between the sub-corpora 1996-2000 and 2001-2004 (see Figure 1).

[4] The relative frequency is calculated by *Wordlist*.

[5] I.e. the formation of more-word combinations containing the respective term (e.g. *marketing politique, stratégie (de) marketing, politique de communication,* etc.).

[6] For reasons of complexity we are concentrating on nouns.

[7] In cases like these the respective modifier nouns seem to have adjectival character.

[8] In 2005 the Commission de terminologie proposed to use *marque en ligne*. The prefixation with e- is considered as improper (JO 2005).

[9] We should bear in mind that there is quite probably a difference between written and spoken marketing language.

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Regina Göke
WU Vienna
Department of Foreign Language Business Communication
Institute for Romance Languages
regina.goeke@wu.ac.at

Report of the XVII European Symposium on Languages for Specific Purposes

"Methods and Aims – (Re)Conceptualising LSP Research"

Lisa Rhein, Anne Simmerling, Ekaterina Zakharova

On 17–22 August, 2009, the **XVII European Symposium on Language for Specific Purposes** took place in Aarhus/Denmark. The conference's aim this year was to contribute to **"Methods and Aims – (Re)Conceptualising LSP Research"**; the following topics were discussed in separate sections:

– Pedagogical aspects
– Intercultural aspects
– Textual and genre analysis
– Construction of specialised knowledge
– Translation of specialised discourse
– Diachronic perspectives
– Business communication
– Linguistic features
– Terminology and terminography
– Specialised lexicography
– Cognitive aspects
– Theoretical and methodological aspects of specialised discourse

During the last few years LSP studies have focused on the investigation of discourse communities rather than theoretical research. As a result of this year's conference, a differentiated map of LSP interests arises, which comprises studies of Law, Medicine, Business, Engineering and Politics, and also includes central linguistic fields like translation and technical communication. The central questions addressed by the conference were:

– Where can we learn from each other or from other disciplines?
– Which problems need to be solved?
– Which research communities do we contribute to?
– Which methods do we use and for what purposes do we use them?
– Which types of knowledge are examined?

In order to indicate the extent of the research fields and methods, an overview of several selected contributions and discussions will be provided in the following. Our intention is to give a significant insight into the variety of applied methods, problems and aims identified and presented during the conference. The contributions were supported by four keynote speeches by K. Schubert, M. Eppler, F. Keil and C. Candlin, each with a specific focus and outlook. The conference report comprises thematically oriented summaries subdivided into broader main topics. The first main topic was the translation perspective on LSP, including intercultural aspects, cognitive translation processes, translation difficulties in certain domains, and pedagogical challenges. The second main topic was the construction and communication of specialised knowledge considering methods of conceptualising knowledge, knowledge modelling, the visualisation of knowledge, knowledge transfer, and illusions and non-knowledge. The third main topic dealt with specialised lexicography, terminology and terminography, considering a diachronic perspective. The overview concludes with a consideration of issues of specialised discourse.

Translation perspectives

A keyword often used during the papers and discussions was 'awareness'; with this concept the contributors referred either to cultural differences or to problems that occur in translation processes. The Round Table on "Pragmatic Features in the Language of Cross-Cultural Virtual Teams" identified both ideas of 'awareness' as essential preconditions for international cooperation. The aim was to improve cross-cultural communication and translation processes as well as cultural awareness when working in cross-cultural virtual teams. On a pedagogic level, this implies the requirement of an intercultural communication and translation competence to work efficiently in international teams. Diverse contributions formulated different goals and methods of resolution as well as initial stages for solutions to current research questions, which all indicate a demand for a higher awareness of translation problems and cultural differences. Awareness seems to be the major category for academic work in this field.

One striking aim in translation research was to make translation processes easier for translators. This can be achieved by providing a detailed lexicographic description of needed phraseology *(Fritzinger/Heid),* or by providing explanatory notes in translators' dictionaries *(Laursen).* These approaches also help to improve the naturalness of translation *(Biel)* as well as correctness and authenticity. It was shown that translation problems are often situated on a semantic level and can be summarised in the question of how to deal with words and statements which cannot be understood without additional explanation. For this kind of research purpose, corpus-based work was frequently favoured because of the following advantages, as mentioned by Biel: it opens up new perspectives, increases objectivity and can provide training implications in the context of translation. For translation teachers it is important to analyse the students' translation problems. In one case, an error research project in pedagogy resulted in the creation of a program to help translation teachers edit translated texts, and in an "error tree" which helps to categorise the mistakes *(Minacori).* This study and current process-oriented research into students' and professionals' translation processes by *Göpferich* showed again the importance of translation problem awareness. In her project TransComp, a multi-method approach is followed which combines think-aloud with screen recording, keystroke logging and questionnaires to analyse the development of translation competence in students of translation over a period of three years.

An important outcome of this section was that the target text should be acknowledged as a self-contained text and not simply as the translation of the original resource. Above all, it was made clear that the whole translation topic is also a financial issue. With his cost-benefit analysis of multilingualism in Europe, *Portuese* showed that language barriers cost at least 800 billion € to the EU economy. He proposed the application of a lingua franca, which should ensure efficiency, uniqueness and stability.

Intercultural aspects

The intercultural perspectives of LSP are as various as the discipline itself. On the one hand, there were presentations which dealt with communication problems due to earlier globalisation and equalisation processes like the Bologna Process *(Budin)*. Unclear concepts, vague expressions and terms emerge from such processes and can cause confusion and communication problems. This is due to the fact that the processes are transnational, but the way of thinking – and therefore also the language – remains on a national level. As a consequence, one important approach of LSP in this intercultural context seems to be the reflection, the analysis and the observation of such trans- and international processes, where language for specific purposes plays a key role in successful communication. On the other hand, there were contributions which revealed conceptual and translational challenges, for example how concepts of culture can be explored and how culture is constructed as a concept in the context of workplaces *(Askehave/Holmgreen)*. The outcome was the hypothesis that discourse structures have certain effects on social practice.

The intercultural perspective was also considered in relation to translation processes. *Parianou's* presentation can be considered as summarising the section's papers; its aim was to explore how attitude determines language and the approach of the translator. Parianou's idea was to develop a translation attitude culture as a logical result of translational and intercultural perspectives.

Domain-specific difficulties: juridical texts

Translation problems do not only result solely from cultural differences. Instead, there are numerous error or problem sources, which can occur on a lexical, semantic or syntactic level, or are due to the specific domain and context of the source text. One of the major discussion topics dealt with problems within the translation of juridical texts. Many contributors looked at the conventions of expressions in legal texts and their indeterminacy. Against the common critique that legal language must not be vague, *Chang* for example argues that vagueness is a characteristic of language and is needed for proper jurisdiction. In addition, vagueness of expression allows for changes in society, which one can see in the example of heresy. Moreover, it enables judges to interpret an expression's vagueness with respect to the particular context, which is essential for decision-making *(Simonnæs)*. The panel on "Exploring Discourses and Practices of International Commercial Arbitration" complemented the translational perspectives on juridical texts. It provided a general overview of the work processes in arbitration and the arbitrators' language use. It became obvious that its use in arbitration processes and in legal discourse is highly culturally coded. Apparently, even the meaning of arbitration is dependent on the cultural environment. This means among other things that decisions in arbitration are not questioned by clients because they are embedded in a social-religious structure and society.

Pedagogic challenges

Translation and culture studies are also investigated by pedagogy. When it comes to foreign language acquisition it is important to develop one's vocabulary and simultaneously to learn something about its conventional (culturally determined) use. In an Iranian LSP context *Mohammadi* compared vocabulary knowledge and vocabulary use and stated that there is a big gap between the learners' receptive, controlled productive and free productive vocabulary knowledge. He came to the conclusion that teachers should use more communicative approaches to language teaching, and should encourage learners to use new words – a conclusion that has often been drawn before. Still, practical implementation suggestions are not forthcoming. Obviously, the didactic and pedagogic implications of language and culture teaching are not always clear or concrete, and they sometimes have a political dimension. In order to handle cultural and social demands countries introduce policy guidelines. These dictated policies often do not work, as was shown by *El-Hussari* in a Lebanese context. His study makes clear that cultural awareness cannot be used as a general means of problem solving – it can only offer tools or facilities to the students.

The dominant insight is – to summarise the contributions on translation and culture – that only a combination of cultural and translation awareness can ensure accurate text-production and appropriate behaviour in each different cross-cultural teamwork constellation. This requires the development of a concrete methodology, which has only recently begun to appear.

Construction and communication of specialised knowledge

Another central research interest was the construction and communication of specialised knowledge. Knowledge gain, processing and correct memory as well as knowledge modelling form a research area, which is based on the concepts and knowledge of cognition science. Some contributions in the section made clear that knowledge representation – particularly in models – is often incorrect or shortened and indicates a clear need for improvement. Moreover, the following knowledge types play an important role: knowledge about social structures (e.g. differences in language use, conventions), power (e.g. suasion tactics), cognitive characteristics (e.g. different knowledge levels in fact, process and narrative knowledge) and cultural awareness.

With his overview of the development and the research strands of LSP, *Schubert* offered an integrative perspective on the closely intertwined LSP and translation studies. He not only considered linguistic features of communication, but also content, technical medium and work processes. The overall research perspective is to model the internal and external process of LSP (monolingual and translingual, oral and written, self-initiated and mediated). In his view we should rather speak of specialised communication studies than of *LSP*, because the former is broader and includes more facets than the latter term. Specialised communication also takes cultural aspects, the correlation between cognition and communication, and the different applied methods into account. According to Schubert, research should focus on processes, for example how internal, mental and external processes can be described. As one of his future objectives he identified the development of comprehensive specialised communication studies.

Conceptualising knowledge

The Round Table on "Methods of Accessing Specialised Knowledge in Texts" focused on two main interests, namely how a mental approach to specialised language can be found, and how knowledge can be traced in texts. It was common ground that understanding and knowledge are dynamic and variable, and that language is the main tool of knowledge representation. Furthermore, texts were considered as achievements of knowledge communication processes, since they contain the information and the history of disciplines. The different methods and approaches of specialised language were mentioned, for example the user's analysis, knowledge framework, a multilingual and multicultural approach and an approach considering the contexts of a text (linguistic, situational and cognitive). Two hypotheses about how knowledge is situated were predominant: *Temmerman's* position was that knowledge is not personal but shared in a community. Knowledge is assessed through mental, dynamic models. In contrast to this *Engberg* claimed that knowledge is predominantly individual and inherently constructed by individuals, but also has a collective side. The discussion of these two positions showed that there is a need to distinguish the term *knowledge* more clearly, because people understand and mean different things by their use of the term. In order to answer the question of how knowledge can be traced in texts the statement that knowledge is meaning was discussed. Meaning itself was considered as a precondition to shared knowledge and to knowledge communication. One of the points of interest was the question of what individuals have in their mind compared to the so-called common knowledge, especially if it is assumed that knowledge is shared and co-constructed through individuals, but can only be analysed through the collective side of knowledge. This implies the necessity of a method to detect the individual knowledge within texts representing also a collective side of knowledge: the suggestion was a text oriented, inductive analysis of knowledge (semantic network), or a deductive and text based access through conceptual frames. In addition, the discussion raised general underlying questions, e.g. whether knowledge should be labelled differently in order to contribute to the different meanings and understandings of knowledge. Is it enough to mention what we understand by the term *knowledge*? How should we use the term in general? Especially in the context of LSP, where various disciplines work with the term *knowledge*, a transparent use is absolutely essential.

Knowledge modelling

Another key topic in this section was knowledge modelling. *Heine/Schubert* gave an overview of new and old models in specialised communication theory. They pointed out that models are always schematic, simplified and idealised. Models can give an internal or an external perspective, they can be declarative or indicative and their purposes can vary between didactic, research and practical implications. When talking about new vs. old models it is important to ask if they are only built on theoretical views or if they include databases. In these categories Bühler's Organon Model and Shannon's Mathematical Model of Communication can be counted as old models as well as Jakobson's, Revzin's/Rozencvejg's and Kade's models. In contrast, Göpferich's didactically orientated writing process model can be counted as a new model: among other aspects it takes the writer's knowledge and cognitive processes as well as cultural differences into account; thus, internal (cognitive) aspects are included as well as the external aspects of the writing process (the environment). Other new communication models which also stress the process character of communication, production or knowledge processes are developed by Grünwied, Rothkegel, Schubert and Heine. In connection with this, *Perrin-Taillat* pointed out that there is a high error potential implied when creating new or using existing models: errors can consist in ill-used methods to gather data, in ill-used models, or in inadequate sampling. She showed for example that knowledge cannot be presented in a two-dimensional space. The conclusion is that each discipline should state its models clearly – this is not a new demand but it aims at a higher awareness when models are used in scientific research.

Visualisation of knowledge

Working on the communication of specialised knowledge there is a common understanding that specialised knowledge is difficult to share. *Eppler* spoke about visualisation techniques and pointed out how they could catalyse LSP research, especially when problems like information overload or pre-shaping are taken into account. This latter problem means that we always see what we already know, based on our prior knowledge. Eppler showed with his case study (management) that visual practices in knowledge work can significantly improve knowledge communication in groups. Visualisation was presented as a new stream of knowledge communication because it is flexible and dynamic, but also persistent. As potential implications for LSP he mentioned four different perspectives: a) substantially: positive impact of graphic schemes, b) pragmatically: real time knowledge visualisation improves knowledge communication, c) conceptually: objects of knowing/boundary objects are useful conceptualisations to support knowledge communication, d) methodically: employment of experiments to isolate the positive and negative effects of knowledge communication interventions. Knowledge integration via real-time visualisation is still under-explored, but the findings clearly prove its viability since it supports knowledge gain and memory. This underlines the point that the LSP community should expand its methods and concepts through interdisciplinary cooperation and exchange, and can also generate new handling practices and perspectives.

Knowledge transfer

Interdisciplinary research demands knowledge-sharing, which means that knowledge asymmetries must be addressed. As a consequence, knowledge transfer is required. The notable knowledge asymmetries in our society and the understanding that the world is complex, diffuse and therefore hard to describe were taken as a starting point by *Kastberg/Lauridsen* to discuss the role of universities as institutions to improve knowledge communication. In their ongoing project MOLAN they observe and discuss the role of universities in the 21st century with the aim to create a positive attitude among young Europeans in formal education towards the learning of foreign languages as well as towards other people and cultures. Problems that accompany this challenge are for example to find a fitting form or setting to create knowledge for the addressees and to deal with European institutional structures, while opening up European universities to American university models. Knowledge asymmetries were also analysed in the context of economical communication. The main question in *Ditlevsen's* paper was how specific knowledge of companies is or can be communicated in such a way that it is useful for investors. Knowledge communication was defined as a strategic and goal oriented action. Ditlevsen is developing a multilayered model to analyse the different dimensions (construction, representation, communication) of Investors Relation communication. The specific challenge is not to examine the three dimensions separately, but to find a fitting method for all dimensions as a unit. This contribution showed again that in the context of LSP, the mediation of understanding across knowledge asymmetries and the development of better understand structures, instances and processes are relevant.

A general need to transfer knowledge – or rather to "integrate" knowledge, as stated by Eppler – to other experts, to part-experts, or to amateurs is noticeable. This implies careful text production, focusing on the recipients' comprehension abilities and previous knowledge. An interesting perspective on knowledge transfer was given by *Jüngst*. She analysed non-fictional books for children and adults, which use genre parodies for the presentation of knowledge. But she also outlined the restrictions and limitations of parody use: parodies cannot be the general medium of knowledge transfer; they can only be used in specific contexts, and only make sense when they facilitate knowledge communication and reception. Also, authors should be careful with the parody of genre, especially if the text is translated into a language in which the genre is not accepted or does not exist. *Christoffersen/Møller* closed a gap in Denmark's research on the communication of specialised knowledge when they explored manuals for elderly people. They applied controlled language principles to the writing of technical manuals for the elderly in order to create a higher level of comprehension. These principles are to be complemented by controlled content, as was pointed out in the discussion. Thus, knowledge communication should not only depend on the topic but also on the recipients' (assumed) comprehension abilities to ensure successful knowledge transfer.

The workshop "Physics Meets Politology – Collaborative Writing in Transdisciplinary Projects" by *Janich/Zakharova* explored further aspects of knowledge communication, in this case in transdisciplinary projects. In such projects people from different disciplines try to solve real-world problems. One of the main challenges for all the participants is the collaborative production of texts, which is also affected by knowledge asymmetries. The goal of the workshop was to analyse those texts in order to observe how the degree of mutual knowledge integration progresses from the first disciplinary text to the final transdisciplinary presentation. The finding of the analysis was that in all versions of the project draft each discipline only studies its own research interests; the level of transdisciplinary knowledge integration is insufficient.

Illusions and non-knowledge

Another perspective on specific knowledge was presented by *Keil*. He stated that it is sometimes hard to tell whether one really knows or only has a vague idea of something. This often only appears if one is asked to explain a certain fact or procedure, when knowledge has to be retrieved. Keil revealed illusions of understanding and showed with an example that most people think they have far more mechanistic understanding than they actually have. In general, he distinguished between different grades of knowing; that is, between factual, procedural and narrative knowledge. The advantages of illusions might be seen in being able to deal with information overload and in avoiding "diving too deep" into detail.

In addition to different types of knowing, concepts of not-knowing must be considered. The question is which role non-knowledge plays in knowledge communication, whether it is conscious or deliberately hidden. In their contribution, *Janich/Rhein/Simmerling* focused on the communication of non-knowledge in scientific discourse. The contribution not only identified the reasons for the general neglect of focus on the communication of non-knowledge, but also indicated recurring problems. Especially in times of widespread trust in scientific research it seems to become more relevant to communicate the level of certainty and un-certainty of results more clearly. In order to close the non-knowledge research gap in the study of LSP, methods of fields like Cognitive Linguistics, Discourse Analysis, Text Production/Writing Research, and Stylistics seem to be appropriate in order to trace, detect, describe, of fields and value uncertainty and non-knowledge in scientific texts.

Textual and genre analysis

The presentations dealing with textual and genre analysis examined different text types in order to detect differences between disciplines concerning text conventions, and to show how discourse can be influenced by choosing specific wording and positions. *Dahl* for example carried out a contrastive analysis of conclusion sections written by linguists and economists. She showed the different positions of both groups in their academic environment and their different publication pressures and pointed out that conclusions are included either to open new knowledge research fields or to promote one's own work. It emerged that there is also a pedagogical aspect implied: when authors write conclusions they have to think more broadly about their topic and point out further considerations; in teaching this can also help students to take new perspectives in their writing tasks. Another view on textual and genre analysis was opened by two other research groups who used the financial crisis as a case study. In their analysis, *Ahmad/Musacchio* showed the direct correlation of economics and politics by looking at politicians' and bankers' speeches during the credit crunch and analysing the influence of the speeches on the stock market by using the methodology of notion of return. With the help of sentiment analysis, which in this case correlates news with market movement, they gain knowledge about the power and persuasion tactics used by different parties during the crisis. *Alexander* revealed the ways in which American and British politicians spoke about and tried to influence the financial crisis in the autumn of 2008, focusing on language and discourse. Combining corpus based empirical data and discourse analysis he not only revealed slight differences between the American and British ways of influencing financial discourse, but also the extent to which their language use sustains their own power.

Specialised lexicography, terminology and terminography

In the field of specialised lexicography, terminology and terminography a frequent aim was to develop a new kind of dictionary for specific purposes, including collocations and phraseology. In the dynamic field of aviation for example, it is important in the pilot-controller communication to stick to a standardised terminology: improperly used language can cause misunderstanding and ambiguity and result in disasters. *Bratanić/Anić* collected collocations, phraseology and vocabulary lists and made the expressions accessible online in a term bank in order to meet user needs (i.e. the needs of pilot and controller trainees at the beginning of their education). Another example, where collocational knowledge is needed, was given by *Cacchiani*. In the context of legal texts she examined different dictionaries under the perspective of the debate on the genuine purpose, cognition and knowledge-oriented functions of dictionaries. Her exemplary study of English legal dictionaries revealed that collocational information is needed to assist reception, production and translation. That LSP research must also reflect on the fact that non-specialists use expert terminology was shown by *Schopp*. He explored how terminology has changed in expert and public discourse. The problem has occurred that the terminology of non-specialists and experts mingles and can be misunderstood. It remains uncertain whether a term should be open for new or broader meanings, or if this only destroys the term's meaning. A connected but more theoretical perspective on terminology was given by *Leonardi*, who discussed the question of how the term *ontology* can be placed in relation to the term *schema* and how ontology can be understood. The term *ontology*, which originally occurred in Philosophy, is nowadays used in different fields: for example in computing, artificial intelligence, and in terms of the representation of knowledge. One outcome of the contribution and discussion was that ontology can be understood either as a theory or as an object. It was questioned whether the different contextual understanding makes the term obsolete and if it would be more adequate to use another term instead, for example *schema*. The whole discussion showed the complexity of terminological questions and led to a more general discussion of the ongoing development of universal quality criteria for ontology, and whether they really have to be universal.

The fact that a change of meaning or even the disappearance of a term is a quite normal phenomenon was shown by *Dury/Drouin*, who chose to adopt a diachronic perspective on LSP. They examined the disappearance of a term or a part of it *(necrology)* and observed changes in its grammatical use. Based on a corpus linguistic method the abnormal absence of terms was compared over decades and filtered out. The challenges of such a project are not only to find linguistic clues to necrology but also to explore computational tools to extract them. The project not only revealed different types of necrology (semantic, lexical and grammatical disappearance), but also acknowledged that the language of ecology has changed dramatically over the last decades. The essence of such projects could be the updating of lexicons and ontologies especially in translation contexts. Such projects also stress the importance of dealing with LSP from a diachronic perspective in order to notice changes in LSP and to give concrete advice for improvement, for example in the case of lexica or institutional texts. This was also underlined by *Pierucci's* diachronic contrastive analysis of an old and an amended version of the Italian constitution. She noticed that there are longer articles, and syntactic discontinuities caused by a frequent use of parenthesis and an absence of structure in the amended version. Her findings revealed that the leading concepts for understanding constitutional texts, namely readability and comprehensibility, are not sufficiently implemented in the amended version. Therefore, modifications are necessary in order to increase comprehensibility and reduce complexity.

Issues of specialised discourse

In the section on theoretical and methodological aspects of specialised discourse *Kastberg* focused on the ontogenesis of instructional texts. The underlying idea was the assumption that we have to leave the text and observe the production, and use, etc., to be able to understand the text. Due to the lack of an adequate method to observe such a process, a new methodological design is necessary. Following Kastberg, the design must consider the context as well as qualitative and quantitative data. He applied e.g. text linguistics to examine the different stages of text production with ethnography to get an idea of the production context. But it was shown that problems are inherent in an ethnographical approach: the results can be influenced by the fact that the observer is present. What people say and how they behave depends on their opinion of the observer. Kastberg also mentioned the more general problem of patterning which occurs if too much data is gathered in the observing process. *Kalverkämper/Baumann* illuminated another theoretical and methodological aspect of LSP research, namely how to document and organise research results. With the goal to condense the HSK-Series and publish it in one volume they will not only outline the general research fields, but also make research gaps and desiderata objects of discussion.

Conclusion

The contributions to the conference showed that LSP and the research on its use, conventions and problems are essential in many professional contexts (e.g. for the pilot, teacher, interpreter, musician) and in various domains like academia, the economy, media, medicine, humanities, science and politics. Due to the fragmentation of LSP research, an increased grade of professionalisation and separation is perceptible – research is often restricted to very specific domains (e.g. linguistics, sociology, communication science, computer science, cognition, law and economic science, and didactics).

With this broad variation of possible research fields, a variety of methods, topics and aims are inherent. The Symposium provided the opportunity and the challenge to find common aims, concepts and problems of LSP research in general, besides the specific aims of each research strand. It was notable that LSP increasingly sees itself as an observatory, analytical, accompanying and attending instance, which aims at improvement by revealing and solving problems. This can be achieved with the development of standardised procedures or with concrete support and assistance, e.g. in the form of consulting, in the provision of collocation dictionaries or computer templates. For this purpose, diachronic perspectives on objects of research are as important and helpful as synchronic analyses.

Nearly all LSP research has general goals in common, which are optimisation and standardisation. The contributions this year showed that LSP research aspires to increase the efficiency of work processes, to standardise and conventionalise text and language use in specific work fields in order to ensure optimal, error-free processes, and to improve intercultural communication, cooperation and translation. In addition, LSP also strives for a higher level of text comprehensibility and semantic understandability, especially in translational contexts. Attention was also paid to intercultural aspects, especially where terms and concepts are involved. In many discussions the importance of defining terms was stressed, to communicate the underlying concepts and applied methods in order to ensure a successful communication of results. This necessity was particularly proven in discussions about knowledge, the term *knowledge* and its mental representations.

Methodological problems predominantly seem to occur if we try to understand and analyse internal processes of communication or the different levels of a communication process as a unit. One attempt to face these problems seemed to be the frequent combination of methods, in order to manage the complexity of LSP in its different contexts and to gain access to different levels of research. Most of the research was corpus-based and often combined with discourse analysis. Some other combinations were:

– interaction discourse and evaluation, e.g. to discover textual conventions in certain domains
– sentiment analysis, notion of return, e.g. to detect the correlation of news and developments in economy and society
– think-aloud, keystroke logging, screen recording, questionnaires to analyse translation problems and awareness
– ethnographical and text-linguistic approaches, e.g. to understand the ontogenesis of a text
– ethnographical approaches, interviews and discourse analysis in order to reveal the role of knowledge about language in didactic contexts.

Nevertheless, the combination of methods is not always a sufficient solution for the existing problems in LSP. *Candlin* emphasised among other issues the importance and the necessity of aligning research and knowledge gaining processes with practical issues e.g. in the form of case studies. This implies the assumption that professional knowledge is usually mediated through specific cases. Referring to this he identified some key recurring themes, e.g. the need to identify, interpret and explain critical issues and critical moments in the "contact zone" of workplace practice (joint problematisation) or the challenge of bringing the discourse of applied linguistics together with the discourses of the workplace (recontextualisation, recategorisation). He also stated that researchers should be aware of the nature of analytical processes and respect the workplace's characteristics when proposing changes (reflexivity). As future themes for professional communication research, Candlin inter alia suggested the need to look even more closely at negotiation processes, e.g. in order to gain more information about how people reach agreements and how they share decision making. Furthermore, LSP research should consider the inter-discursiveness of professional communication, and discourses of trust, risk, quality, and expertise, e.g. the role played by inter-professionalism.

All in all, the Symposium showed that interdisciplinary work and the (re)conceptualisation of methods and aims is an ongoing and dynamic process, which is essential and needs to be continued in LSP research, and in all the disciplines involved. ◆

Lisa Rhein, Anne Simmerling, Ekaterina Zakharova
Technische Universität Darmstadt
Institut für Sprach- und Literaturwissenschaft
lisa.rhein@t-online.de, anne.simmerling@web.de, zakharova_kat@yahoo.de

Böttger, Claudia (2007): *Lost in Translation? An Analysis of the Role of English as the Lingua Franca of Multilingual Business Communication.* Hamburg: Kovač (Philologica. Sprachwissenschaftliche Forschungsergebnisse 117). ISBN 978-3-8300-2930-4, 316 Seiten.

Bei der vorliegenden Arbeit handelt es sich um eine im Rahmen des Sonderforschungsbereichs Mehrsprachigkeit der Universität Hamburg entstandene Dissertation. Im Zentrum der Arbeit steht die Untersuchung der Rolle des Englischen in mehrsprachigen Kontexten, speziell der Übersetzung von Wirtschaftstexten. Sie befasst sich vor allem mit dem Einfluss des Englischen als Lingua franca auf Übersetzungen vom und ins Deutsche, und zwar auf synchroner und diachroner Ebene. Ein Schwerpunkt liegt dabei auf der Frage, ob und inwieweit die Dominanz des Englischen als Lingua franca zu einer Übernahme von englischen Textnormen in zielsprachlichen deutschen Texten führt. Als empirische Basis dienen die jährlichen Geschäftsberichte internationaler Firmen, da diese als wichtigste Dokumente der Finanz- und Wirtschafskommunikation gelten, problemlos im Internet abrufbar und aufgrund ihrer globalen Zielgruppe auf ein hohes Maß an Verständlichkeit angelegt seien. In der Kommunikation zwischen den Firmen und der „financial community", bestehend aus Aktionären, Banken, Investoren, Börsenmaklern und einer an Investmentgeschäften interessierten weltweiten Öffentlichkeit, sind es vor allem zwei Genres, nämlich der „letter to shareholders" und das „corporate statement" (Firmenphilosophie, Leitbild), auf denen die Arbeit fußt. Ersteres geht dem Jahresbericht als Vorwort voraus, letzteres umfasst „mission texts, corporate values, philosophies, and visions" (4). Ergänzt wird dieses Korpus durch Interviews, die die Autorin mit Mitarbeitern der Hypovereinsbank geführt hat.

Die Beobachtung, dass in dem sich auf die Zeiträume 1997 bis 2000 und 2001 bis 2005 erstreckenden Untersuchungsmaterial der Anteil von Übersetzungen vom Englischen ins Deutsche merklich zurückging und der Anteil der Übersetzungen vom Deutschen ins Englische sich entsprechend erhöhte, führte die Verfasserin zu der Hypothese, dass eine Anpassung von Ausgangstexten an die Textkonventionen der Zielsprache mithilfe „eines kulturellen Filters" nicht mehr stattfinde und stattdessen die deutschen Übersetzungen zunehmend anglophonen Textmustern folgen. Des Weiteren wird mit Blick auf die Arbeiten der Dissertationsbetreuerin Juliane House postuliert, dass bei einem Vergleich von deutschen Ausgangstexten mit deutschen Übersetzungen aus dem Englischen Verschiebungen auf folgenden Ebenen eintreten: Erhöhung der interpersonalen Funktion des Sprachgebrauchs, Hinwendung von einer autororientierten zu einer leserbezogenen Perspektive, Wechsel von der informatorischen Explizitheit deutscher Texte zu einer englischen inferierenden Implizitheit sowie Hinwendung von einer ‚verdichteten', für das Deutsche charakteristischen Informationsstruktur zu einer eher lockeren linearisierten, für das Englische typischen Struktur.

Die aus neun Kapiteln bestehende und sachlogisch aufgebaute Arbeit beginnt mit einer Einleitung, in der Gegenstand und Hypothesen, Forschungshintergrund sowie der methodologische Hintergrund (das „Model of Translation Quality Assessment" von House 1997) erläutert werden. Die Folgekapitel 2 und 3 behandeln den „German annual report" in seiner Entwicklung zu einer globalen Textsorte und geben eine Übersicht zum Forschungsstand einschlägiger Studien zur Erforschung derselben. Der detaillierten Darstellung des translatorischen Analysemodells in Kapitel 5 schließt sich im Folgekapitel die Vorstellung von Konzepten wie „subjectivity", „perspectivity", „evidentiality", „stance" u.a. an, mithilfe derer die Untersuchung der Autor-Leser-Beziehung in den o.g. Genres „letter to shareholders" und „corporate statement" durchgeführt werden soll. Das für die Untersuchung verwendete Korpus besteht aus drei Subkorpora mit insgesamt 160 Texten mit einer Gesamtwortzahl von 80000 Wörtern. Hierzu führt die Autorin aus: „[T]he corpus design is such that it functions as a monolingually comparable corpus consisting of German originals and German translations as well as Anglophone originals and Anglophone translations, and also as a multilingually comparable corpus, consisting of a comparable corpus of English and German originals and multilingual English originals and German originals – and a comparable sub-corpus of German translations and English translations" (127). Bei den untersuchten englischen Originaltexten handelt es sich um Dokumente von Firmen wie Johnson&Johnson, The Body Shop, Unilever, IBM, Microsoft u.a., bei den deutschen um solche der Hypovereinsbank, Allianz, Munich Re u.a.

Kernstück der Arbeit sind die vergleichend-kontrastiven, empirischen Befunde der untersuchten Genres, über die in Kapitel 7 und 8 berichtet wird. Die Vorgehensweise war in beiden Fällen identisch, indem zunächst die deutschen Ausgangstexte analysiert werden, um das Diskursmuster dieser Texte zu ermitteln. Anschließend wurden diese mit den ins Deutsche übersetzten Texten kontrastiert, um den Einfluss des Lingua franca-Englisch festzustellen. In einem zweiten Schritt wurde das entsprechende Verfahren auf die englischen Texte angewandt, um mögliche Auswirkungen des Deutschen auf die englischen Übersetzungen zu ermitteln. Hierbei konnte eine Reihe sehr interessanter Ergebnisse festgestellt werden, die größtenteils Ausgangshypothesen der Arbeit bestätigen konnten. Während die deutschen „corporate statements" ihre Planungen durch Sprechakte wie „Beschreiben" und „Erklären" zum Ausdruck bringen, favorisieren anglo-amerikanische Texte Akte wie „Ankündigen" und „Versprechen". Ein weiterer Unterschied betrifft die Verbalisierung von Intentionalität. Während in den deutschen Originaltexten Modalverben verwendet werden, um zu zeigen, dass sich eine Firma darum bemüht, ein „global player" zu werden, wird die Firma in den englischen Übersetzungen so dargestellt, als ob sie diesen Status bereits erreicht hätte, wodurch eine günstigere Positionierung der Firma erreicht werden soll. Die Ergebnisse bestätigen insgesamt, dass durch die Übersetzung im Lingua franca-Kontext Diskursmuster der Ausgangssprache verloren gehen, wobei dieses nicht nur für Übersetzungen aus dem Englischen ins Deutsche, sondern auch für Übersetzungen ins Englische zutreffen kann. Der im 8. Kapitel durchgeführte diachrone Vergleich (1997–2000 und 2001–2005) von „letters to shareholders" zeigt, dass sich z.B. für die Entwicklung der deutschen Originaltexte auffällige Änderungen ergeben haben: eine persönlichere Ansprache der Leser, Verwendung von „hedges" und Ausdrücken der persönlichen Einstellung, um die Diskursivität der Autorenhaltung zu signalisieren, sowie, damit im Zusammenhang stehend, einen Wechsel von einer monologen zu einer ‚dialog-simulierenden' Präsentation. Des Weiteren konnte herausgefunden werden, dass deutsche Vertextungsmuster bei Übersetzungen mit englischen Mustern konvergieren können, wodurch, so die Autorin, eine Hybridisierung des Englischen herbeigeführt würde, aus der sich eine neue domänenspezifische Varietät des Englischen entwickeln könne.

Das Buch schließt mit einer Zusammmenfassung und einigen Anmerkungen zu Implikationen der Forschungsergebnisse (Kap. 9). Hier wird u. a. ein Szenario entworfen, in dem auf breiterer interdisziplinärer Kooperation mit Wirtschaftlern, Juristen und Psychologen an der Erforschung mehrsprachiger Textproduktion gearbeitet wird, um internationalen Firmen forschungsbasierte Lösungen für ihre mehrsprachige Textproduktion anzubieten. Außerdem ist dort vom gegenseitigen Nutzen in der Kooperation von Wirtschaft und Wissenschaft die Rede, universitäre Einrichtungen werden zu „university-based transfer partners" von „companies" (279). Fragen zur *Bewertung* der beschriebenen Sprachveränderungsprozesse, insbesondere im Hinblick auf die Dominanz anglo-amerikanischer Diskursmuster und die Verdrängung anderer, wie sie etwa im Rahmen von Critical Language Awareness (Fairclough 2001) gestellt würden, werden nicht formuliert. Bei einer Arbeit, die im Titel den Begriff „Lingua Franca" trägt, überrascht es ein wenig, dass eine terminologische Diskussion dieses Begriffs nicht geführt wird. Immerhin handelt es sich nach der ursprünglichen Definition bei einer Lingua franca um eine dritte Sprache, die von Menschen mit unterschiedlichen Muttersprachen benutzt wird. Insofern ist es nicht unproblematisch, vom „impact of *lingua franca* English" zu sprechen, wenn es tatsächlich um den Einfluss englischer, vor allem amerikanischer, Muster geht.

Insgesamt liefert die Arbeit auf einer geklärten theoretisch-methodologischen Grundlage und eines dazu adäquat ausgewählten Korpus viele interessante Beobachtungen zu Sprachveränderungsprozessen in der mehrsprachigen Wirtschafts- und Finanzkommunikation. Sie beindruckt durch die zu den Einzelfragen vorgenommenen linguistischen Detailanalysen, die zu einem besseren Verständnis von Sprachveränderungsprozessen in einer globalisierten Welt beitragen. Die Arbeit ist in flüssigem, teilweise etwas sehr kompaktem Englisch geschrieben. •

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Prof. Dr. Claus Gnutzmann
Englisches Seminar
Technische Universität Braunschweig
c.gnutzmann@tu-bs.de

Mushchinina Maria (2009): *Rechtsterminologie – ein Beschreibungsmodell. Das russische Recht des geistigen Eigentums.* Berlin: Frank & Timme. (Forum für Fachsprachenforschung, 87). ISBN 978-3-86596-218-8, 395 Seiten.

Laut Klappentext wird ein empirisch ausgelegtes Modell der Beschreibung von Fachlexik in einem besonderen Fachbereich dargestellt. Dies weckt das Interesse eines jeden, der sich für Besonderheiten der juristischen Lexik interessiert. Vorweggenommen sei jedoch bereits hier, dass der Leser Russisch lesen können muss, da der bei weitem überwiegende Anteil der Beispiele im zentralen Kap. 6 (137–351) auf Russisch geschrieben ist und nur einen geringen Anteil von Kommentaren in deutscher Sprache enthält. Da die Rezensentin der russischen Sprache nicht mächtig ist, wird sich das meiste auf die anderen Kapitel des Buches konzentrieren.

Das Buch fußt auf der 2007 an der Philosophischen Fakultät II der Universität des Saarlandes angenommenen Dissertation von Maria Mushchinina (im Folgenden MM). Als Zielsetzung gibt MM anfangs an, dass das Hauptaugenmerk ihrer Untersuchung auf der Standardisierung der russischen juristischen Terminologie als allgemeinem Untersuchungsrahmen liegen werde (16) sowie auf der „Ermittlung der sprachlichen ‚Abdeckung' der Begrifflichkeit in unterschiedlichen Typen juristischer Texte" (ibid.), also einer Bestandsaufnahme der Sprachverwendung. Ihre Erkenntnisse, so ihr Anliegen, sollen Linguisten, die sich mit Rechtsterminologie und Rechtsinhalten befassen, helfen, einige Schlussfolgerungen für die juristische Lexikographie zu ziehen (17).

Als Teilbereich für den weiten Bereich der russischen juristischen Terminologie hat MM die Terminologie des russischen Rechts des geistigen Eigentums aus den Jahren 1992 bis 2003 ausgesucht. In ihrer Darlegung der Einordnung des Rechts am geistigen Eigentum im russischen Rechtssystem (25 ff.) gibt MM eine nachvollziehbare Begründung an, warum sie sich bei ihrer Untersuchung besonders auf den Teilbereich des Urheberrechts beschränkt hat.

In Kap. 1 (33–54) befasst sich MM mit Rechtssprache und Fachkommunikation im Recht und diskutiert zentrale Definitionen zur Abgrenzung dieser beiden Begriffe. In Kap. 2 (55–70) werden Funktion und in bisheriger Literatur diskutierte Klassifikationsvorschläge von Rechtstexten vorgestellt, wobei MM sich einer sehr angewandten Gliederung in (1) Gesetzestexte, (2) Texte aus der Rechtsprechung und (3) Texte aus Rechtslehre und -wissenschaft anschließt. In Kap. 3 (71–82) wird der Begriff im Recht aus rechtswissenschaftlicher Perspektive diskutiert und werden die Klassifikationen von Rüthers (2007), Wank (2005) sowie Gubaeva (2003) präsentiert und miteinander verglichen, ehe MM bemerkt, dass in ihrer Untersuchung keine Differenzierung zwischen Legalbegriffen und Dogmatikbegriffen (Wanks Gliederung) vorgenommen wird. Dennoch verweist sie darauf, dass den Legalbegriffen später bei der Bestimmung von dominanten Benennungen innerhalb von Synonymiereihen „eine besondere Gewichtung" (82) beigemessen wird.

In Kap. 4 (83–112) kommt MM schließlich auf den Kernbereich ihres Anliegens, nämlich die Rechtsterminologie als Fachlexik. Leicht verwirrend kann es wirken, dass in diesem Kapitel einleitungsweise grundlegende Definitionen aus der Terminologiewissenschaft für die Begriffe ‚Begriff', ‚Benennung', ‚Terminus' und ihre eigenen Definitionsvorschläge hierzu diskutiert werden, ehe MM u.a. auf die Beschreibung formaler Aspekte der Termini (morphologischer Bestand und Terminusbildung; semasiologische Sicht) eingeht. MM diskutiert unterschiedliche Definitionen von ‚Terminus' und nimmt bedingt Abstand von Beneš' Definition von ‚Terminus (im engeren Sinn)' als eindeutiger und einnamiger Bezeichnung (!) eines im betreffenden Fach exakt definierten Begriffs oder Gegenstands (88). Die Begründung für letztere Stellungnahme liegt laut MM u.a. darin, dass in der russischen Rechtsterminologie nur „bedingt" von Termini im engeren Sinne gesprochen werden könne. Ihre Begründung ist, dass häufig Definitionen für zentrale Begriffe fehlen und dass viele Begriffe unterschiedlich definiert würden (88f.). MM meint, dass es unmöglich sei, eine objektive Bedeutung von Rechtstexten und juristischen Begriffen zu bestimmen sowie dass eine begriffssystembezogene Betrachtungsperspektive allein auch nicht ausreiche. Ihre eigenen Definitionsvorschläge für ‚Begriff', ‚Benennung' und ‚Terminus' berücksichtigen daher sowohl eine verwendungssituative als auch eine begriffssystembezogene Untersuchungsperspektive (91). Die Diskussion über ‚Begriff' und ‚Begriffssystem' ist besonders für die onomasiologische Annäherung wichtig. MM verweist dabei auf zentrale Quellen wie u.a. Felber/Budin (1989), Arntz/Picht (1991) und Picht (2004) sowie die relevanten DIN (DIN 2342 und DIN 2331), jedoch nicht, zumindest nicht an dieser Stelle, auf Wüster, den so genannten „Vater der Terminologie(lehre)". Ebenso vermisst die Rezensentin an dieser Stelle die Auseinandersetzung mit den z.T. abweichenden Definitionen in der einschlägigen ISO 1087. Da MM den Standardisierungsgrad der untersuchten Terminologie analysieren will, ist es einsichtig, dass besonders die Begriff-Benennung-Relation für sie im Vordergrund stehen wird. MM betrachtet eine Einheit von Begriff und Benennung nur dann als ‚Terminus', wenn aus der Belegungshäufigkeit geschlossen werden kann, dass die Benennung (1) „vom kompetenten Empfänger im Kontext als zum entsprechenden Fachbegriff zugehörig erkannt" und (2) von der „kompetenten Fachgemeinschaft als eine zulässige Versprachlichungsmöglicheit für diesen Begriff" aufgefasst wird (94). Sie schlägt dabei vor, den **Begriff** ‚Terminus' durch einen neuen Begriff, und zwar ‚begriffssystemkongruente Verwendung' zu ersetzen (ibid.). Die Frage ist hier, ob MM nicht meint, die **Benennung** *Terminus* durch eine neue Benennung (*begriffssystemkongruente Verwendung*) zu ersetzen. Da *Terminus* eine etablierte Benennung in der deutschen Terminologie(lehre)[1] ist, trägt diese neue Benennung aus der Sicht der Rezensentin jedoch zur Verwirrung bei, da MM selbst in ihrer weiteren Verwendung der Benennung *Terminus* inkonsequent ist, wie z.B. in Kap. 4.3.

MM gibt an, dass sie in der vorliegenden Arbeit juristische Texte und den juristischen Wortschatz „aus der Perspektive der Versprachlichung der Begrifflichkeit eines Rechtssystems" (54) betrachtet. Sie verfolgt dabei eine Kombination von onomasiologischer und semasiologischer Betrachtungsweise (112 f.), auf die sie in Kap. 5 näher eingeht. Sie beschreibt die Ermittlung der Begriffe aufgrund der Verwendung von Benennungen (semasiologische Sicht) als den als logisch richtig gewählten ersten Schritt, wobei die Begriffe auf das jeweilig relevante Begriffssystem projiziert werden. Dieses Procedere bezeichnet sie als „VerwB-Projektion". Im nächsten Schritt wird gefragt, ob die festgestellten Benennungen begriffssystembezogen als Versprachlichungsmöglichkeiten für diesen Begriff („BVspr-Projektion") gelten können (onomasiologische Sicht; 113). MM will aber auch gleichzeitig feststellen, ob sich die festgestellte Relation auch quantitativ erfassen lässt und somit eine Stabilität beschreibbar ist. Diese quantitative Erfassung und Dokumentation ist eine Stärke des Modells, das durch Zweisprachlichkeit eindeutig gewonnen hätte.

Kap. 6 (137–351) enthält eine detaillierte Beschreibung der angewandten Untersuchungsmethode auf die von MM ermittelten 103 Synonymreihen. Dafür hat MM Kriterien ausgearbeitet, die u.a. auf einer quantitativen Datenauswertung beruhen. Die akribisch durchgeführte Analyse in zahlreichen Tabellen nimmt darauf hin den Rest des Kapitels in Anspruch (156–351). MM hat damit argumentiert, dass eine „(sprachunabhängige) Angabe von Begriffsbezeichnungen allein in der deutschen Sprache wegen der eventuell vorhandenen intensionalen und extensionalen Unterschiede zwischen deutschen und russischen juristischen Begriffen nicht sinnvoll" sei (151). Dies macht es der Rezensentin, die, wie eingangs erwähnt, der russischen Sprache nicht mächtig ist, unmöglich, Einzelbeispiele zu kommentieren. Was das Methodische anbelangt, so arbeitet MM mit einem mehrdimensionalen Modell, in dem sie eine begriffssystematische und eine verwendungssituative Betrachtungsperspektive kombiniert. Erstere ermöglicht ihr eine kombinierte Beschreibung von Synonymie und Polysemie, die sie „Begriff-Benennung-Feld (BB-Feld)" nennt. Ein solches BB-Feld umfasst die „Gesamtheit aller Benennungen und Begriffe, die bei unterschiedlichen Verwendungsbedingungen eine Einheit darstellen" (147). Für die verwendungssituative Betrachtungsperspektive introduziert sie die Bezeichnungen „begriffssystemkongruente Verwendung (BSKV)", die „begriffssysteminkongruente Verwendung (BSIV)" und die „begriffssystemexterne Verwendung (BSEV)" (148–150). Die Erklärungen zu dieser neuen Einteilung und den dazugehörigen Bezeichnungen sind nachvollziehbar beschrieben. Das BB-Feld wird schließlich vergleichend auf die analysierten Fachtextsorten angewandt, um eventuelle Unterschiede zwischen diesen festzustellen.

Kap. 7 fasst die erzielten Ergebnisse zusammen und enthält die Schlussfolgerungen. MMs Befund ist, dass in ihrem Material der höchste Anteil an versprachlichten Begriffen im Bereich der Rechtslehre und der geringste im Bereich der Rechtsprechung gefunden werden konnte. Desgleichen stellt MM fest, dass ihre Analyse gezeigt hat, dass die Tendenz zur mehrfachen Begriffsversprachlichung (Synonymie) im Bereich der Rechtslehre/-wissenschaft am stärksten ist. Der größte Anteil an Fällen der Polysemie ist in ihrem Material in Texten der Rechtsprechung enthalten, während die Tendenz zur Eineindeutigkeit in den Gesetzestexten am stärksten ist. Die Begründung über die begriffssysteminkongruente Verwendung (BSIV) in Texten der Rechtsprechung sieht MM möglicherweise in der dortigen Tendenz zur gemeinsprachlichen Verwendung. Die Tendenz zur gemeinsprachlichen Verwendung in Fällen der begriffssystemexternen Verwendung (BSEV) lasse sich ebenfalls gut durch die lexikalische Nähe der juristischen Fachterminologie zum gemeinsprachlichen Wortschatz erklären (355). Auf diese Weise wird hier der Bogen zurück zur Anfangsdiskussion über den gleitenden Übergang zwischen Fachsprache und Gemeinsprache bzw. Fachkommunikation gespannt.

Zusammenfassend sei festgehalten: In den ersten fünf Kapiteln wird, wie oben beschrieben, der Untersuchungsgegenstand von vielen verschiedenen Aspekten her angegangen, wo auch Randphänomene wie z.B. Metonymie und Metapher mit einbezogen werden, was sicherlich der Entstehungsgeschichte des Buches geschuldet ist. Dieses weite Ausholen lässt den Leser allerdings schnell den roten Faden verlieren, ehe er zum zentralen Kap. 6 mit der Korpusanalyse gelangt. Mit seinen knapp 200 Seiten ist Kap. 6 das wichtigste Kapitel im Buch. Da die Beispiele in den Tabellen leider nur auf Russisch geschrieben sind, dürften jedoch viele Leser von der Beschreibung der Detailanalyse ausgeschlossen sein. Dies steht im Gegensatz zu der anfangs angegebenen Zielsetzung, Linguisten zu helfen, die sich mit Rechtsterminologie und Rechtsinhalten befassen, einige Schlussfolgerungen für die juristische Lexikographie zu ziehen (17) und schmälert somit den Nutzen von MMs Arbeit.

Als positiv ist dennoch der verwendungsbezogene Aspekt, den die Analyse mit abdeckt, hervorzuheben. Angaben zu auf die Textsorten bezogenen bevorzugten Versprachlichungen sind für einen Benutzer von lexikographischen/terminographischen Arbeiten von besonderem Interesse.

Es sei noch bemerkt, dass es eher befremdlich wirkt, dass im relativ umfassenden Literaturverzeichnis mit Werken deutschsprachiger und russischer Autoren nicht auf Hoffmann et al. (1998–1999) verwiesen wird. Dies ist, so auch der Titel, ein internationales Handbuch eben zum Bereich Fachsprachenforschung (einschließlich Fachlexikographie) und Terminologiewissenschaft.

Insgesamt ist dies dennoch ein lesenswertes Buch, auch für denjenigen, der die Tabellen wegen fehlender Russisch-Kenntnisse nicht im Detail lesen kann und sich für Kap. 6 mit den dortigen vereinzelten Kommentaren auf Deutsch und einleitenden Bemerkungen begnügen muss. ◆

Notes

1 vgl. DIN 2342: „Terminus = das zusammengehörige Paar aus einem Begriff und seiner Benennung als Element einer Terminologie"

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Prof. Dr. Ingrid Simonnæs
Norwegische Wirtschaftsuniversität (NHH)
Institut für Fachsprachen und Interkulturelle Kommunikation
Ingrid.Simonnas@nhh.no

Magdalena Duś: *Das deutschsprachige juristische Gutachten.* Częstochowa (2008): Wydawnictwo Wyższej Szkoły Ligwistycznej**.** ISBN 978-83-61425-03-8, 216 Seiten.

Das vorliegende Buch ist eine recht traditionelle Textsortenuntersuchung, die besonders in den 90er-Jahren durchgeführt wurde. Sie verdient jedoch auch aus heutiger Sicht Aufmerksamkeit aus zwei Gründen: Erstens wird eine Textsorte untersucht, zu der es bislang keine Vorarbeiten gibt, die aber für den Bereich des fachlichen Fremdsprachenunterrichts Relevanz hat – juristische Gutachten. Und zweitens ist die Arbeit im Gegensatz zu den traditionellen Arbeiten explizit auf eine Fragestellung ausgerichtet, die nicht systematischer, sondern anwendungsbezogener Art ist, und zwar wie ein fachfremdsprachlicher Kurs gestaltet sein muss. In diesem Zusammenhang ist es folgerichtig, dass die Arbeit sich auf Gutachten konzentriert, wie sie im rechtswissenschaftlichen Unterrichtskontext verwendet werden, und nicht z.B. auf Gutachten, die von Richtern im Rahmen ihrer Entscheidungstätigkeit verfasst wurden. Es handelt sich also um Texte, in denen zu Unterrichtszwecken fiktive Rechtsfälle schrittweise gelöst werden.

Die Arbeit fängt mit einer Darlegung der Ausgangspositionen für die Bearbeitung des Themas an. Es handelt sich dabei um eine Einordnung in die Forschungslandschaft auf dem Gebiet der Fachkommunikations- und Textsortenforschung, eine Beschreibung des Stellenwertes von Gutachten aus rechtswissenschaftlicher Sicht sowie Überlegungen zur Korpuserstellung und zu den sprachwissenschaftlichen Grundlagen der Arbeit. Die allgemeine Zielsetzung der Arbeit lautet: „Es sollen Erkenntnisse gewonnen werden bezüglich einer für die Arbeit im Objektbereich *Recht* relevanten Fachtextsorte, die [...] durch das Merkmal ‚fachintern' gekennzeichnet ist." (46) Diese sehr übergeordnete These wird noch aus textlinguistischer Sicht spezifiziert, sodass das Augenmerk in der Arbeit auf Struktur der Texte, auf inhaltlichen und sprachlichen Beziehungen zwischen Sachverhaltsdarstellungen und Gutachten, auf Anwendung von Fachwissen und dessen Ausdruck in fachsprachlicher Form und auf der Ermittlung von Textfunktionen in den untersuchten Texten liegt. Diese genaueren Fragestellungen erscheinen auf den ersten Blick etwas breit gestreut. Sie spiegeln aber die oben erwähnte grundlegende Ausrichtung der Arbeit auf die Anwendung der Untersuchungsergebnisse sowohl in Germanistikstudien als auch in „fach- und berufsorientierten Ausbildungs- und Weiterbildungsveranstaltungen auf dem Gebiet Deutsch als

Fremdsprache“ (46–47) wider. Dabei wird mit den letztgenannten Veranstaltungen an Unterrichtselemente im universitären Jura- oder Wirtschaftsstudium, an Fremdsprachenunterricht in vorbereitenden Berufsschulen und an Weiterbildung von praktizierenden Juristen und Ökonomen gedacht (10–11).

Wie schon angeführt, finde ich, dass hier eine besondere Stärke der Arbeit liegt, die auch zu ihrer Berechtigung beiträgt: Die Arbeit greift gerade jene Elemente heraus, die für die angepeilte Anwendung der Ergebnisse von Relevanz sind, begründet jedoch nicht deren Auswahl. Man muss insofern der Verfasserin vertrauen. Man hätte sich dabei wünschen können, dass die Relevanz der Auswahl im Lichte empirischer Studien oder jedenfalls auf der Grundlage von Erfahrungsberichten aus der (eigenen?) Praxis diskutiert worden wäre. Stattdessen wird im einschlägigen fünften Kapitel lediglich aufgelistet, inwiefern das Gutachten in Lehrwerken behandelt wird. Und dadurch wird zwar die Auswahl der Textsorte, aber nicht die Auswahl an Perspektiven gerechtfertigt.

Nach der Darlegung der Ausgangspositionen erfolgt eine exemplarische Analyse von zwei Gutachten, um die untersuchte Textsorte vorzustellen. Im dritten Kapitel werden fachliche Grundlagen für die Erstellung eines Gutachtens in der Form einer Untersuchung vorgestellt, wie das Eingehen eines Kaufvertrags in Sachverhaltsdarstellungen. Weiters werden drei zentrale juristische Begriffe aus den untersuchten Texten genauer erklärt und dargelegt, jedoch ohne direkten Bezug zu ihrer Verwendung in den Gutachten. Stattdessen handelt es sich um eine Untersuchung anhand von Wörterbüchern und der Fachliteratur. Im vierten Kapitel werden sprachliche Merkmale der untersuchten Gutachten behandelt wie der Zusammenhang zwischen Detaillierungsgrad der Sachverhaltsdarstellung (untersucht im dritten Kapitel) und der Gestaltung des lösungsdarstellenden Teils, die Textstruktur, das Erörtern, das Schließen als Teil der generellen schlussfolgernden Struktur des Textes und das Merkmal der Fachsprachlichkeit in den untersuchten Gutachtentexten. Untersucht wird das Rekurrieren auf Fachwissen in der Form von Explizitierung von Begriffswissen, Darlegung des Inhalts von Rechtssätzen und Anwendung von einschlägigen Rechtstermini. Auch hier gilt, dass die untersuchten Elemente relevant und interessant sind. Jedoch wird zumindest diesem Leser nicht völlig klar, wie der Zusammenhang zwischen drittem und viertem Kapitel zu sehen ist. Im vierten Kapitel werden einschlägige sprachliche Elemente behandelt, wogegen im dritten Kapitel vor allem eine Explizitierung von drei ausgewählten Begriffen anhand einschlägiger Fachliteratur erfolgt. Ich bin nicht völlig überzeugt, dass diesem Kapitel tatsächlich eine selbstständige Rolle in der Gesamtstruktur zukommt.

Im abschließenden fünften Kapitel werden die ermittelten Ergebnisse gesammelt, zur Beschreibung des Gutachtens als Fachtextsorte verwendet und auf dieser Grundlage Aussagen über die Anwendbarkeit der Ergebnisse für die genannten Unterrichtszwecke gemacht. Wie schon angeführt, sehe ich den zweiten Teil als den innovativsten Beitrag der Arbeit. Der Fachtextsortenteil ist dagegen zwar sauber begründet und gründlich beschrieben, aber theoretisch-methodisch wenig weiterführend. Die theoretischen Grundlagen sind recht traditionell (primär Gläser, Brinker und Weber), ein größerer Anteil an Diskussion und Kritik dieser Grundlagen sowie eine Einbeziehung neuerer Ansätze (wie z.B. diejenigen von Adamzik, Fix und Heinemann) hätten der Arbeit gut getan.

Zusammenfassend handelt es sich hier um eine relevante und sauber ausgeführte Doktorarbeit, die zwar auf dem theoretischen Gebiet nicht durch Innovation geprägt ist, aber eindeutig eine Lakune in dem Wissen schließt, das für die Gestaltung von fachfremdsprachlichen Kursen auf dem Gebiet des Rechts relevant ist. Das Buch sei deshalb besonders all denjenigen zur Lektüre empfohlen, die solche Kurse planen. Darüber hinaus ist die Arbeit aber auch generell für jeden von Bedeutung, der Interesse an Merkmalen juristischer Kommunikation und ihrer Realisierung in spezialisierten juristischen Kontexten hat.

Jan Engberg
Aarhus Universität
Aarhus School of Business
je@asb.dk

Bibliography of Recent Publications on Specialized Communication

Ines-A. Busch-Lauer

49th Installment

Seit der 48. Fortsetzung erscheint die „Kleine Bibliographie fachsprachlicher Untersuchungen" auch online unter www.fachsprache.net (Link Bibliography) und trägt den Titel „Bibliography of Recent Publications on Specialized Communication". Die Datenbankversion der Bibliographie bietet verbesserte Suchmöglichkeiten, wie beispielsweise eine Schlagwortsuche. Derzeit finden sich in der Datenbank alle Titel, die in dieser und der 48. Fortsetzung enthalten sind; nach und nach werden auch die früheren Ausgaben dieser Bibliographie in der Datenbank erfasst.

From the 48th installment on, the "Kleine Bibliographie fachsprachlicher Untersuchungen" has appeared under the title "Bibliography of Recent Publications on Specialized Communication". The references it contains can also be accessed online at www.fachsprache.net (Link Bibliography). The online version of the Bibliography offers additional search options, for example a keyword search. Currently, the database contains the titles included in this and the previous installment of the Bibliography; the contents of the former issues will successively be added.

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List of Journal Abbreviations

Der Sprachdienst: Der Sprachdienst, Wiesbaden, Gesellschaft für deutsche Sprache e.V.

Deutsch als Fremdsprache: Deutsch als Fremdsprache, Zeitschrift zur Theorie und Praxis des Deutschunterrichts für Ausländer, Leipzig, Herder-Institut, Langenscheidt KG

Discourse & Communication: Discourse and Communication, Thousand Oaks, Sage Publications

Discourse Studies: Discourse Studies, Thousand Oaks, Sage Publications

ESP across Cultures: ESP across Cultures, Bari, Edizioni B.A. Graphis

ESP J: ESP Journal. English for Specific Purposes. An International Journal, New York, Amsterdam, Elsevier

ESP World: English for Specific Purposes World. Web-based Journal, <http://www.esp-world.info>

ETC: English Text Construction. Amsterdam/ Philadelphia, Benjamins

Fachsprache. IJSC: Fachsprache. International Journal of Specialized Communication, Wien, Braumüller

J Pragmatics: Journal of Pragmatics, Amsterdam, Elsevier

JEAP: Journal of English for Academic Purposes, Amsterdam, Elsevier

JoSTrans: The Journal of Specialised Translation, <http://www.jostrans.org/index.htm>

MDÜ: MDÜ. Fachzeitschrift für Dolmetscher und Übersetzer, Berlin, Bundesverband der Dolmetscher und Übersetzer e.V. (BDÜ)

Muttersprache: Muttersprache. Vierteljahresschrift für deutsche Sprache, Wiesbaden, Gesellschaft für deutsche Sprache e.V.

Public Und Science: Public Understanding of Science, Thousand Oaks, Sage Publishers

Science Comm: Science Communication, An Interdisciplinary Social Science Journal, Thousand Oaks, Sage Publishers

Synaps: Synaps: Fagspråk, Kommunikasjon, Kulturkunnskap, Norges Handelshøyskole Bergen

Prof. Dr. Ines-Andrea Busch-Lauer,
Westsächsische Hochschule Zwickau, FB Sprachen
Ines.Busch.Lauer@fh-zwickau.de

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