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Editors Wolfram Bublitz Andreas H. Jucker Klaus P. Schneider

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Methods in Pragmatics

Edited by Andreas H. Jucker Klaus P. Schneider Wolfram Bublitz

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Preface to the handbook series

Wolfram Bublitz, Andreas H. Jucker and Klaus P. Schneider

The series *Handbooks of Pragmatics*, which comprises thirteen self-contained volumes, provides a comprehensive overview of the entire field of pragmatics. It is meant to reflect the substantial and wide-ranging significance of pragmatics as a genuinely multi- and transdisciplinary field for nearly all areas of language description, and also to account for its remarkable and continuously rising popularity in linguistics and adjoining disciplines.

All thirteen handbooks share the same wide understanding of pragmatics as the scientific study of all aspects of linguistic behaviour. Its purview includes patterns of linguistic actions, language functions, types of inferences, principles of communication, frames of knowledge, attitude and belief, as well as organisational principles of text and discourse. Pragmatics deals with meaning-in-context, which for analytical purposes can be viewed from different perspectives (that of the speaker, the recipient, the analyst, etc.). It bridges the gap between the system side of language and the use side, and relates both of them at the same time. Unlike syntax, semantics, sociolinguistics and other linguistic disciplines, pragmatics is defined by its *point of view* more than by its objects of investigation. The former precedes (actually creates) the latter. Researchers in pragmatics work in all areas of linguistics (and beyond), but from a distinctive perspective that makes their work pragmatic and leads to new findings and to reinterpretations of old findings. The focal point of pragmatics (from the Greek pragma 'act') is linguistic action (and inter-action): it is the hub around which all accounts in these handbooks revolve. Despite its roots in philosophy, classical rhetorical tradition and stylistics, pragmatics is a relatively recent discipline within linguistics. C. S. Peirce and C. Morris introduced pragmatics into semiotics early in the twentieth century. But it was not until the late 1960s and early 1970s that linguists took note of the term and began referring to performance phenomena and, subsequently, to ideas developed and advanced by Wittgenstein, Ryle, Austin and other ordinary language philosophers. Since the ensuing *pragmatic turn*, pragmatics has developed more rapidly and diversely than any other linguistic discipline.

The series is characterised by two general objectives. Firstly, it sets out to reflect the field by presenting in-depth articles covering the central and multifarious theories and methodological approaches as well as core concepts and topics characteristic of pragmatics as the analysis of language use in social contexts. All articles are written specifically for this handbook series. They are both state of the art reviews and critical evaluations of their topic in the light of recent developments. Secondly, while we accept its extraordinary complexity and diversity (which we consider a decided asset), we suggest a definite structure, which gives coherence to the entire field of pragmatics and provides orientation to the user of these handbooks. The series specifically pursues the following aims:

- it operates with a wide conception of pragmatics, dealing with approaches that are traditional and contemporary, linguistic and philosophical, social and cultural, text- and context-based, as well as diachronic and synchronic;
- it views pragmatics from both theoretical and applied perspectives;
- it reflects the state of the art in a comprehensive and coherent way, providing a systematic overview of past, present and possible future developments;
- it describes theoretical paradigms, methodological accounts and a large number and variety of topical areas comprehensively yet concisely;
- it is organised in a principled fashion reflecting our understanding of the structure of the field, with entries appearing in conceptually related groups;
- it serves as a comprehensive, reliable, authoritative guide to the central issues in pragmatics;
- it is internationally oriented, meeting the needs of the international pragmatic community;
- it is interdisciplinary, including pragmatically relevant entries from adjacent fields such as philosophy, anthropology and sociology, neuroscience and psychology, semantics, grammar, discourse and media analysis as well as literary studies;
- it provides reliable orientational overviews useful both to students and more advanced scholars and teachers.

The thirteen volumes are arranged according to the following principles. The first three volumes are dedicated to the foundations of pragmatics with a focus on micro and macro units: *Foundations* must be at the beginning (volume 1), followed by the core concepts in pragmatics, *speech actions* (micro level in volume 2) and *discourse* (macro level in volume 3). The following six volumes provide *cognitive* (volume 4), *societal* (volume 5) and *interactional* (volume 6) perspectives and discuss *variability* from a *cultural and contrastive* (volume 7), a *diachronic* (volume 8) and a *medial* (volume 9) viewpoint. The remaining four volumes address *methodological* (volume 10), *sociomedial* (volume 11), *fictional* (volume 12), and *developmental and clinical* (volume 13) aspects of pragmatics:

Foundations of pragmatics
 Wolfram Bublitz and Neal Norrick
 Pragmatics of speech actions
 Marina Sbisà and Ken Turner
 Pragmatics of discourse
 Klaus P. Schneider and Anne Barron

4. Cognitive pragmatics Hans-Jörg Schmid 5. Pragmatics of society Gisle Andersen and Karin Aijmer 6. Interpersonal pragmatics Miriam A. Locher and Sage L. Graham 7. Pragmatics across languages and cultures Anna Trosborg 8. Historical pragmatics Andreas H. Jucker and Irma Taavitsainen 9. Pragmatics of computer-mediated communication Susan Herring, Dieter Stein and Tuija Virtanen 10. Methods in pragmatics Andreas H. Jucker, Klaus P. Schneider and Wolfram Bublitz 11. Pragmatics of social media Christian R. Hoffmann and Wolfram Bublitz 12. Pragmatics of fiction Miriam A. Locher and Andreas H. Jucker 13. Developmental and clinical pragmatics Klaus P. Schneider and Elly Ifantidou

Preface

Pragmatics is no doubt an unusually large and diverse subfield of linguistics. Over the last thirty or forty years it has grown from a small area for a few specialists to one of the dominating approaches. There is an ever increasing number of dedicated journals, textbooks and handbooks that testify to its importance and widespread appeal. The series of handbooks in which this volume appears in itself comprises 13 volumes and a total of almost 9,000 pages of overviews of specific areas of research within pragmatics. Each volume individually and the entire series as a whole make a strong claim for the broad diversity of objects, theories and research methods within the scope of pragmatics. And indeed, we strongly believe that this diversity, which some might perhaps see as a lack of unity and coherence, is, in fact, enriching and empowering. It is the opposite of a dogmatic adherence to one single methodology, one single theoretical approach or one single type of data of analysis. It is the aim of this volume to give an overview of the full breadth of research methods in today's pragmatics.

The handbook opens with three papers devoted to the basics of any pragmatic investigation. It presents general surveys of data types, methods and ethics of data collection, and the different methods of transcribing spoken language. The second part of the handbook comprises surveys of what we have decided to call "introspectional pragmatics" (see the introduction to part 2 for a justification of the term). Today's pragmatic research relies mostly on empirical methods, but important work is still being done within this research tradition, which goes back to some of the early luminaries of the field, the philosophers of language John L. Austin, John Searle and H. Paul Grice. The remaining three parts of the handbook are devoted to empirical methods of pragmatic research. Part 3 comprises overviews of experimentational methods in pragmatic research, such as discourse completion tasks, comprehension tasks and psycholinguistic production tasks. Part 4 on observational pragmatics looks at methods that focus on (usually relatively) small sets of data, such as ethnomethodology, conversation analysis or discourse analysis, while part 5 on corpus pragmatics looks at methods that rely on much larger data sets and usually employ computer tools for pragmatic analysis.

As editors of the current volume and as general editors of the entire series of handbooks it is our pleasure to thank Birgit Sievert and Barbara Karlson for their enthusiasm and unfailing support for both this volume and the entire series. We also thank Larssyn Staley for copy editing most of the current volume and Sophie Decher for compiling the index of names, and above all we would like to thank our contributors for their exemplary diligence, co-operation and patience.

Zurich, Bonn and Berlin, December 2017

Table of contents

Prefa	ace to the handbook series	v
Prefa	ace to Methods in Pragmatics	ix
I.	Introduction	
1.	Data in pragmatic research Andreas H. Jucker	3
2.	Methods and ethics of data collection Klaus P. Schneider	37
3.	The art of transcription: Systems and methodological issues Roger J. Kreuz and Monica A. Riordan	95
II.	Introspectional pragmatics	
4.	Introduction to part 2: Introspectional pragmatics <i>Wolfram Bublitz</i>	123
5.	Philosophical pragmatics Marina Sbisà	133
6.	Research methodology in classical and neo-Gricean pragmatics <i>Yan Huang</i>	155
7.	Cognitive pragmatics: Relevance-theoretic methodology Billy Clark	185
III.	Experimentational pragmatics	
8.	Introduction to part 3: Experimentational pragmatics Klaus P. Schneider	219
9.	Discourse completion tasks Eva Ogiermann	229

10.	Assessing the comprehension of pragmatic language: Sentence judgment tasks Alma Veenstra and Napoleon Katsos	257
11.	Psycholinguistic production tasks Raymond W. Gibbs, Jr.	281
12.	Role plays J. César Félix-Brasdefer	305
IV.	Observational pragmatics	
13.	Introduction to part 4: Observational pragmatics Andreas H. Jucker	335
14.	Ethnographic methods in pragmatics Meredith Marra and Mariana Lazzaro-Salazar	343
15.	Ethnomethodology and conversation analysis Andrea Golato and Peter Golato	367
16.	Discourse analysis <i>Anita Fetzer</i>	395
17.	Critical discourse analysis <i>Piotr Cap</i>	425
V.	Corpus pragmatics	
18.	Introduction to part 5: Corpus pragmatics <i>Andreas H. Jucker</i>	455
19.	Corpus construction <i>Gisle Andersen</i>	467
20.	Corpus annotation Dawn Archer and Jonathan Culpeper	495
21.	Historical corpus pragmatics <i>Irma Taavitsainen</i>	527

xii

Table of contents

22.	Corpus pragmatics: From form to function <i>Karin Aijmer</i>	555
23.	Corpus-based function-to-form approaches <i>Anne O'Keeffe</i>	587
24.	Corpus-based metapragmatics Michael Haugh	619
Bion	otes	645
Name Subje	e Index	651 669

I. Introduction

1. Data in pragmatic research

Andreas H. Jucker

Abstract: This introductory chapter gives a broad-brush overview of the various types of data in the field of empirical research in pragmatics. It starts with a discussion of the various types of analytical units in pragmatics, taking as its starting point single utterances, which are contrasted to smaller units, such as deictic elements, stance markers, discourse markers, hedges and the like, as well as to larger units, such as sequences of utterances and entire discourses. Data for pragmatic research comes in different modalities. Spoken language and written language are the most obvious modalities, but digital language with its own complexities, sign language and non-verbal behaviour have recently become increasingly important as data for pragmatic research. Moreover, research data can be categorised on the basis of their location on four scalar dimensions. The first dimension concerns the amount of constraints on the interactants and the allowable contributions. The second dimension scales the level of fictionality or factuality of the language under observation. The third dimension assesses the amount of research interference in the production of the data, and the fourth dimension, finally, situates data according to the researcher focus between the two poles of small amounts of highly contextualized data to big data searches of largely decontextualized phenomena.

1. Introduction

There is no research in pragmatics without data. Data – in one form or another – form the essence of what pragmatic research is about. Research – at a very basic level – consists in the search for generalizable patterns in the data. This is true for large computer searchable corpora, it is true for transcriptions of multi-party conversations and it is also true for thought experiments. Thus the researcher must start by collecting data in order to answer a specific research question. The type of data and the method of collecting the data are closely connected to the research question that drives the analysis and to the theoretical framework within which the analysis is carried out. A certain method of data collection will typically provide a very specific type of data and lend itself to a specific way of analysing it, or – viewed from the opposite direction – a certain research question will require a specific set of data that needs to be collected and analysed with a specific method. In general, we can distinguish four different aspects of research: 1) type of data, 2) method of data collection, 3) analysis of data and 4) theoretical framework.

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This opening chapter will focus on the first of them, and the following chapter by Schneider will be devoted to the second.

Often, researchers justify and defend a particular analytical and theoretical framework while they take a certain type of data and a certain method of data collection for granted. A certain type of data and a certain method of data collection are regularly presented as the only viable option. Unbiased overviews of different data collection methods and discussions of their inherent strengths and weaknesses are relatively rare (but see, for instance, Kasper and Dahl 1991; Kasper 2000; Jucker 2009a; Leech 2014: chapter 9). This volume starts from the premise that there is no single best type of data and no single best method for collecting data for pragmatic analyses. In fact, all four aspects of research mentioned above have to be assessed in relation to specific research questions (Jucker 2009a; Golato 2017: 21).

In general, the data of any pragmatic research is language used in actual contexts, and language is ever pervasive. We interact with other people, we watch television, attend lectures, read newspapers, consult user manuals, recite poems, surf the Internet, interact via social media, look at advertising messages, listen to public announcements on the train and so on and so forth. For each and every one of us the mix of communicative situations that we encounter every day is different, but every one of us is embedded in a flow of language. Even in our thoughts and in our dreams language plays an important role. Potentially all these situations, all these instances of language use could be the object of scholarly investigations. However, pragmatics has a long history of preferring – explicitly or implicitly – some types of data over other types, giving preference to unconstrained spoken interaction in natural settings. Written language, on the other hand, has often been rejected as unsuitable for pragmatic analyses because it is secondary (see section 3.1 below). Fictional language, as for instance in novels or plays, has met even more resistance because of its artificiality (see Jucker and Locher 2017). But even certain types of spoken language are occasionally seen as less ideal or unsuitable for pragmatic analyses, in particular language produced in highly constrained communicative situations, such as courtroom or classroom interaction because of the clear assignment of communicative roles and the constraints on the allowable contributions for the different participants.

Such an approach to language data that distinguishes between more acceptable and less acceptable types of data is based on an understanding of language as a more or less coherent and homogeneous entity where variations are seen as deviations. In such a framework, the linguist's task is considered to be the description of the common core of a language, and for this task only certain types of language use, such as maximally unconstrained spoken interaction, qualify as legitimate data. However, today many, perhaps most, pragmaticists adopt a very different view of language. Language is inherently variable and heterogeneous, and linguists are interested exactly in this variability. Every type of language has to be assessed on its own merits, and every type of language, whether spoken or written, deserves to be investigated. This shift in perspective from homogeneity to heterogeneity has been identified as one of a number of paradigm shifts in linguistics (see Traugott 2008: 208; Jucker and Taavitsainen 2013: 6).

This handbook categorically adopts a perspective that focuses on the heterogeneity of language and on a diversity of research questions, data types, analytical approaches and theoretical frameworks. Its contributions provide overviews of a wide range of different methods of data collection and data analysis. In this first chapter, however, I shall provide an overview of the different types of data that are used by pragmaticists while the second chapter by Klaus P. Schneider provides an overview of the different types of data collection methods.

The early philosophers of language and pragmaticists, Austin and Searle, relied on their intuition in their seminal work on speech acts. Their data consisted of their own intuition about the use of language. As any competent native speaker, they knew what it meant to make a promise, to ask a question or to give advice, and they used this intuitive knowledge to dissect the relevant elements, what Austin (1962) called the felicity conditions, of these speech acts. In the philosophical tradition, intuition is an important source of data. According to Schneider,

the word 'intuition' designates an uninferred or immediate kind of knowledge or apprehension, as opposed to discursive knowledge, mediated by accepted methods of demonstration. (Schneider 1995: 606)

For philosophers, it is important to discuss the possible foundation of such intuitive knowledge. "Introspection", according to Schneider, is a special type of intuitive knowledge. The objects of such knowledge are understood as being situated on an inner stage of a person. From there they can be retrieved by "looking inside" (Schneider 1995: 606). Feelings, emotions or the workings of our own native language are examples of such intuitive knowledge.

In the field of pragmatics, it is useful to make a terminological distinction between "intuition" or "intuitive knowledge" on the one hand and "introspection" on the other. Intuition here refers to the knowledge that a researcher brings to the task of investigating his or her native language, together with the ability to fabricate test sentences that can be assessed on the basis of their grammaticality or accessibility. The term "introspection", on the other hand, has been used for a long time in the fields of cognitive psychology and (applied) psycholinguistics to refer to experimental methods, involving thinking-aloud protocols and other elicitation techniques (see chapter 2 by Schneider). The papers in a volume edited by Færch and Kasper (1987), for instance, use the term introspection for a range of methods adopted from cognitive psychology, such as verbal reports by learners about their thought processes (see also Clark, this volume).

The terminological distinction helps to differentiate between the work of the language philosophers, who use their own intuitive knowledge about their native language to theorize about the use of language, and the work of experimental pragmaticists, who use a range of elicitation techniques to access the native speaker introspection of the participants of their experiments. In a wider sense, all experimental work can be seen as accessing the introspection of native speakers. In production experiments, such as dialogue construction tasks or discourse completion tasks the elicited data consist of the language use that the participants consider to be typical or at least appropriate for a given situation. In comprehension and evaluation experiments, the introspective knowledge is accessed in a somewhat more direct form.

Before I turn to the different types of naturally occurring data, I will provide an outline of the different units of analysis in section 2. Section 3 will then be devoted to the different modalities of naturally occurring data and the different ways of conceptualizing these differences. It will cover not only the difference between spoken and written language but also the status of online and digital data, and the importance of sign language, i.e. the language systems used by deaf communities, and gestures as an additional layer of face-to-face communication. Section 4 deals with important dimensions or scales of observational data. It deals with constrained versus unconstrained language, and with the distinction between fictional and factual data. It also addresses the question of researcher interference. And it considers the difference between small snippets of data and huge corpora. This last dimension does not really concern the type of data under investigation but the research focus and whether the researcher attempts to discern communicative patterns on a micro scale of a short extract of a conversation, for instance, or whether the patterns are searched for across millions or even billions of words of running text.

2. Units of analysis

Utterances are – in a sense – the most basic units of analysis in pragmatics. They were the focus of the early language philosophers who asked how utterances can be used to change the world. Words are used to build utterances, which are used as speech acts to perform actions. Utterances are also the focus of researchers who are interested in how conversationalists interpret what they hear. Grice (1975), for instance, provides an account of how people systematically read between the lines of the utterances they hear; and Sperber and Wilson (1995) develop a comprehensive theory of utterance interpretation. Utterances are also seen as the main building blocks of larger structures, e. g. as turns-at-talk, where the focus is on the micro context of utterances and on the question of how one utterance is shaped by and helps to shape its immediate context. They are also seen as building blocks in layered hierarchies of conversational interactions (e. g. Sinclair and Coulthard 1975; Schiffrin 1987). In some cases, the focus of the pragmatic analysis is on units that are smaller than utterances, e. g. deictic elements, discourse markers,

stance markers and pragmatic noise. In other cases, it is on units that are larger than utterances, e. g. on entire discourses or texts or even on discourse domains. In this section, I would like to disentangle the different perspectives and give an overview of the units of analysis in pragmatics (see also Jucker 2008).

2.1. Utterances

The pioneering work of the language philosophers and early pragmaticists, Austin (1962) and Searle (1969), focused on what they called "speech acts", i. e. on utterances that are used to perform actions. Since this early work, the investigation of speech acts has been one of the most important pillars of pragmatic research. The early work relied on philosophical methods and the researcher's intuition about the nature of particular speech acts and how they are used to perform specific actions. Later work employed experimental methods, such as discourse completion tasks (e. g. Blum-Kulka, House and Kasper 1989), role plays and role enactments (e.g. Trosborg 1995), and, more recently, also corpus-linguistic methods (e.g. Deutschmann 2003). But in all cases the focus lies on single utterances and on how these utterances are used to perform specific actions. In some cases, the focus is extended to neighbouring speech acts. Compliments, for instance, regularly elicit responses, and some research, therefore, focuses on both elements of the pair and their sequential organisation (e.g. Golato 2005), but much of the research on compliments and compliment responses nevertheless focuses exclusively on either one or the other of the pair (see overview in Alfonzetti 2013).

Grice (1975) adopted a different perspective. He did not ask how utterances are used to perform actions but rather how conversationalists interpret utterances. How are listeners able to systematically read between the lines of what other people say? Utterances regularly mean more than what they explicitly say; they implicate additional meanings. Grice's Cooperative Principle is an attempt to give a systematic account of how listeners figure out the implicatures of individual utterances. Sperber and Wilson (1995), in their Relevance Theory, extended these questions to utterance interpretation in general. Listeners use pragmatic reasoning not only to recover implicatures from the utterances that they hear, but much more basically to work out even the explicitly communicated meaning of utterances. Blakemore's (1992) introductory textbook is even entitled Understanding Utterances: An Intro*duction to Pragmatics*. Utterances, according to this theory, are underdetermined. They are ambiguous and vague. Nevertheless in actual situations, conversationalists generally pick out the intended meaning. They disambiguate and enrich the explicit content of utterances and come up with pragmatically meaningful interpretations of these utterances.

Utterances are also the building blocks of larger units. On a micro level, researchers have focused on the immediate context of utterances. It was the ethnomethodologists Sacks, Schegloff and Jefferson (1974), in particular, who initi-

ated a large body of research on the minutiae of the turn-taking system. They were interested in how one utterance – or turn-at-talk – is followed by another such unit with a minimal gap and no or minimal overlap between the units. This strand of research focuses on the transition between utterances and on the micro context in which utterances occur.

Researchers in this theoretical framework also noted that certain types of utterances tend to occur in pairs, so-called "adjacency pairs". Questions are followed by answers; greetings by greetings; invitations by acceptances or refusals and so on. This kind of research focuses on the pairings of utterances and on preferred or dispreferred combinations (see for instance Bilmes 1988; Schegloff 2007; Clift 2014). Dispreferred reactions, such as refusals or rejections, are generally clearly marked, while preferred reactions, such as acceptances, are generally unmarked. Thus, conversation analysis does not deal with utterance acts alone but with the sequencing of such acts, their interaction and the principles of their ordering.

With a slight shift of focus, utterances can also be seen as the building blocks of larger structures. Sinclair and Coulthard (1975), for instance, propose an analysis of classroom interaction consisting of a layered hierarchy (see e. g. Edmondson 2014). In this system, single utterances, and sometimes even parts of utterances are the smallest units, the so-called acts. They combine to form moves, such as "initiation", "response" or "feedback". Moves by different interlocutors combine to form exchanges. The three moves initiation, response and feedback, for instance, together form an exchange which is typical for classroom interaction. The teacher asks a question or uses some other way to initiate a reaction by the pupils. One of the pupils responds and the teacher gives feedback on the response. At a higher level, several exchanges combine to constitute transactions, which typically start with a preliminary exchange and – after a series of medial exchanges – end with a terminal exchange. Several transactions together, finally, make up an entire lesson.

2.2. Micro units (smaller than utterances)

While utterances may be seen as the most basic units of analysis in pragmatics, pragmaticists regularly focus on smaller elements as well. These elements have in common that their description requires pragmatic explanations, i. e. explanations that take into account the way in which these elements are used in actual situations and how they link the utterance in which they occur to the communicative situation in which they are used. Typical examples are deictic elements, stance markers, discourse markers, hedges and pragmatic noise. Deictic elements include a wide and diverse range of linguistic expressions which link the utterance in which they occur to its larger context (Levinson 1983: chapter 2; Chapman 2011: 39–42; Hanks 2011). Expressions like *now*, *then*, *next Thursday* or *this evening* connect the utterance in which they occur to its temporal frame; expressions like *here*, *on this side*, *behind*, *come* and *go* connect it to its spatial frame; and expressions like

but, therefore, however, in conclusion and *anyway* connect it to the discourse in which it occurs, to mention just the most important categories.

Stance markers are linguistic elements by which speakers convey their evaluations, personal attitudes and emotions as well as their level of commitment towards propositions (for an overview see Biber et al. 1999: chapter 12; Keisanen and Kärkkäinen 2014; Gray and Biber 2015; Landert 2017). They are a diverse group and – depending on the specific perspective – have been known under a variety of names, such as modality markers, subjectivity or intersubjectivity, hedges and so on. Typical linguistic elements that convey stance are modal and semi-modal verbs (e. g. *might* or *have to*), adverbials (adverbs, such as *obviously* or *fortunately*, or prepositional phrases, such as *in actual fact*) and complement clauses (e. g. *it's amazing that*). But stance can also be expressed through evaluative word choice and even with paralinguistic and non-linguistic means, including tone of voice, loudness, body posture, facial expression and gestures.

Discourse markers, too, comprise a heterogeneous set of elements that have received a lot of attention from pragmaticists with a range of different definitions and different terms. Schiffrin (1987: 31) defines them as "sequentially dependent elements which bracket units of talk", while Fraser (1999: 931) defines them as signalling "a relationship between the interpretation of the segment they introduce, S2, and the prior segment, S1". He further claims that "they have a core meaning, which is procedural, not conceptual, and their more specific interpretation is 'negotiated' by the context, both linguistic and conceptual" (Fraser 1999: 931; see Beeching 2016: chapter 1 for a discussion of different terms and definitions).

Pragmatic noise is a term that was introduced by Culpeper and Kytö (2010: chapters 9 to 12). They use it to refer "to items such as AH, HA, HAH, O, OH, HO, UM, HUM, as well as reduplicative forms like HA, HA or HA, HA, HA" (Culpeper and Kytö 2010: 199). They acknowledge that the term overlaps with the category of interjections, but it also includes laughter, pause-fillers and hesitation markers. Culpeper and Kytö investigate a corpus of Early Modern English dialogues, which means that they have to focus on the written representations of such elements in their data of plays and court records. But such elements have recently received more and more attention from researchers working on present-day materials (for an overview of work on pauses and hesitations see, for instance, Stenström 2011). Reber (2012) provides a detailed analysis of how speakers display affectivity in social interaction with a range of elements that she calls "sound objects", i. e. interjections, such as *oh*, *ooh* and *ah* or paralinguistic signals, such as whistles and clicks.

Thus pragmatic analyses regularly focus on linguistic elements that are smaller than utterances and indeed on paralinguistic and non-linguistic elements. But there is also a large body of work that focuses on entities larger than utterances.

10 Andreas H. Jucker

2.3. Macro units (larger than utterances)

Utterances occur in contexts, and – as I have pointed out above – some researchers focus on the contextualisation of individual utterances into larger entities, be that as pairs of utterances or as entire discourses that are made up of structured sequences of utterances. Some pragmatic research, however, starts from a more global perspective and focuses primarily on larger units, which are variously called discourse or text. The term text is often restricted to written language while the term discourse is used for spoken language, but both terms are notoriously inconsistent across different research traditions (see Fetzer 2014 for an overview of different conceptualisations of the term discourse and Esser 2014 for an overview of taxonomies of discourse types).

A particular strand of this research goes back to the 1970s and 1980s and was originally labelled "textlinguistics". It was an attempt to seek linguistic regularities beyond the sentence boundaries, which manifested itself explicitly in book titles such as A Text Grammar of English (Werlich 1982). Werlich develops a typology of different types of text as well as an outline of the principles of text construction, their function and the contexts of their occurrence. In a similar way, de Beaugrande and Dressler (1981) investigate how texts are used in communication. Can we distinguish between acceptable and unacceptable texts in the same way that we can distinguish between grammatical and ungrammatical sentences? Which elements provide the cohesive ties that keep the sentences of a text together and render the text coherent? This tradition was particularly strong among German speaking scholars (see for instance the numerous introductions to textlinguistics written in German, e. g. Coseriu 1980; Sowinski 1983; Heinemann and Viehweger 1991; or more recently Schubert 2008). Many scholars tried to apply textlinguistic questions about the structure and function of texts to specific genres or text types. Suter (1993), for instance, focuses on wedding reports in local English newspapers. Wedding reports are descriptions of local weddings that have taken place in the week preceding the publication. The analysis focuses on the situational context in which these articles appear, the text production process, their content, thematic structure and their communicative function. Suter adds a diachronic dimension by contrasting wedding reports published in the 1930s to reports published in the 1980s. Auf dem Keller (2004) provides a similar analysis of textual structures in advertisements for books and medical supplies in eighteenth-century English newspapers. And Jacobs (2014) investigates press releases, i. e. texts from businesses, government agencies or political parties issued to the media in the hope of wider publicity.

The term discourse can not only be used to refer to the macro unit that is larger than the individual utterance, but also in a wider sense to refer to a discourse domain. In this sense, it refers to the entire range of linguistic practices in a particular, socially defined domain, as, for instance, in the discourse of sports or the discourse of science (Jucker 2008: 901; see also Henke 2005). Such domains are large and overlapping. Historical pragmatics has a long tradition of investigating such domains, in particular, the discourse of science and mass media discourse (see, for instance, Jucker 2005; Claridge 2010; or the papers in Brownlees 2006 and Jucker 2009b).

In line with this chapter, this overview of units of analysis in pragmatics has focused on data units, such as utterances, discourse markers or entire discourses. Such a perspective does not cover the entire breadth of pragmatic research because pragmatic research does not always take a particular linguistic unit as a starting point. A good example would be the large area of politeness and impoliteness research. Here, the starting point is not a particular linguistic unit and how speakers use this unit in interaction, but rather particular types of interaction and the effects that such interaction has on the participants. This kind of research looks into the effects of communication and searches for elements that create these effects. whether they are words, such as terms of address, specific mitigators or speech acts (see e. g. Watts 2003). Cognitive approaches likewise do not take a linguistic unit as a starting point. They ask about the interrelationship between language and cognition (see Schmid 2012). Such approaches are interested in cognitive processes and how they are reflected in linguistic structures. They do not set out to analyse specific linguistic items, such as deictic elements, even if deictic elements may play a prominent role in their argumentation (see for instance Levinson 2003).

3. Medium of transmission

According to a simplistic view of language, there is a straightforward distinction between spoken language and written language. In one case we speak and listen, in the other we write and read. However, the situation is considerably more complex in particular for research in pragmatics. In the case of communication via electronic devices, such as computers, tablets and mobile phones the complexity increases even more. In addition to the spoken and the written mode, there is also sign language, which uses hand shapes and movements to communicate, and when we talk to each other, we also communicate with gestures, with our posture, with facial expressions and so on. The current section gives an overview of the important distinctions and introduces some of the models that have been developed to conceptualise them.

3.1. Spoken versus written language

The relationship between spoken and written language can be and has been described in many different ways. The written language, for instance, can be seen as derivative and secondary. By and large, all living languages have a spoken form but not all of them have a written form. Thus, the linguist's main task – one might

argue – involves the description of the spoken language. However, the advances of corpus linguistics have had the effect of shifting the primacy of description to the written language because language that already exists in written form is much more readily available for corpus compilation. Early corpora, such as the Brown Corpus or the LOB Corpus consisted entirely of written language, and even later corpora, such as the BNC or COCA only contain relatively small samples of transcribed spoken language. Biber et al.'s (1999) standard grammar of the English language treats the spoken language of conversation as a register next to fiction, news and academic texts. Biber (1988) investigated the variation between speech and writing in a systematic way. He contrasted large sections of the London-Lund corpus of spoken English and the LOB corpus of written English on the basis of features with specific discourse functions which he clustered into textual dimensions in order to evaluate specific texts according to their informational density, or their affective and interactional content.

It is probably fair to say that for a long time pragmaticists – in contrast to corpus linguists – ignored written language because of its secondary nature. However, there were also early attempts to think more carefully about the relationship between spoken and written language from a communicative or pragmatic point of view. Koch and Oesterreicher (1985, 2007; see also Koch 1999; Jucker and Taavitsainen 2013: 21–22), for instance, developed a model to clarify and visualise the distinction. They take the mode of transmission to be a dichotomy between phonic and graphic. Language is transmitted either in the phonic code or in the graphic code. In addition to this dichotomy, there is a scale between the opposite poles of communicative immediacy and communicative distance. The two codes are not restricted to one end of this scale but they have preferences. The graphic code has a preference for situations and genres of communicative immediacy. This is schematically illustrated in Figure 1.



Figure 1: Koch and Oesterreicher's model of communicative immediacy and distance (Koch 1999: 400)

In this model, communicative immediacy is characterized by the parameters in the following list (Koch 1999: 400):

- (a) physical (spatial, temporal) immediacy
- (b) privacy
- (c) familiarity of the partners
- (d) high emotionality
- (e) context embeddedness
- (f) deictic immediacy (ego-hic-nunc, immediate situation)
- (g) dialogue
- (h) communicative cooperation of the partners
- (i) free topic development
- (j) spontaneity

Communicative distance, on the other hand, is characterized by the opposite values of these parameters, i. e. physical distance, lack of familiarity, low emotionality and so on. The four letters in the two triangles represent more typical or less typical situations. The letter A stands for communicative exchanges in the phonic code that are characterized by communicative immediacy, that is to say typically a face-to-face interaction between conversationalists who know each other well. The situation is informal, private, not public, and spontaneous. Topics can be freely chosen and changed and so on. But there are also communicative exchanges in the phonic code that are characterized by communicative distance; area B in the lower triangle. This applies to monologues, such as lectures, in formal, public situations with conversational partners who do not know each other well, and in situations that define specific topics and topic developments. Communicative immediacy is more typical for the phonic code. This is represented by the larger area A. Communicative distance is less typical, represented by the smaller area B. Most communicative situations in the phonic code are situated somewhere along the scale. Telephone conversations lack only a few of the communicative immediacy features of face-to-face conversations, while job interviews already show many of the communicative distance features of very formal, monologic situations.

The letters C and D stand for situations of communication in the graphic code. C represents the less typical situation of graphically communicated messages in situations of communicative immediacy. At the time when Koch and Oesterreicher developed their model this referred mainly to printed interviews, private letters, and entries in a personal diary. D represents the more typical situation of graphically communicated messages in situations of communicative distance. Legal texts, academic writing or articles in high-brow newspapers would be typical examples. Here, too, there are a lot of situations that are located between the two extremes. Today's situation with a wealth of typed messages transmitted electronically the situation has changed considerably. Communication via hand-held devices, via

social media and so on provide an entirely new situation for area C of communicative immediacy in the graphic code.

For researchers in historical pragmatics the relationship between the spoken and the written language is particularly important. In the early days of historical pragmatics, researchers often felt obliged to apologize for the use of written data in pragmatically driven investigations. In the absence of genuinely spoken data, they searched for instances of written language that were as close as possible to spoken language, such as dialogues in plays or transcripts of courtroom interactions. Rissanen (1986: 98), for instance, argued that "texts which record speech for some reason or another, are closer to spoken language than texts which are not based on actual speech". In fictional writing, the situation is even more complex. Authors regularly include oral features into their writings to give the dialogues of their characters an air of authenticity even if the features do not directly correspond to features attested in actual spoken discourse. Scripted and performed interactions between actors in plays also differ from normal everyday interactions in systematic ways (see Bublitz 2017).

In an early paper on historical pragmatics, Jucker (1998) sketched the various ways in which written language can be related to spoken language. Even genuinely written data can be classified into instances that tend to be monologic because there is normally little opportunity for the readers to interact with the writer and dialogic instances where such interaction is possible and expected.



Figure 2: Data in historical pragmatics: the "communicative view" (Jucker 1998: 5, see also Jucker and Taavitsainen 2013: 23)

Written representations of spoken language can be separated into three different types. Reports, protocols and diaries regularly report actual spoken interactions, while conversation manuals and language textbooks record (invented) sample con-

versations that are meant to be used by the readers on future occasions. A third type is made up by fictional texts that record fictional conversations, for instance in play texts or in narrative literature but also, historically, in academic texts that were often written as fictional conversations between a master and a student (see also Culpeper and Kytö 2000 for a similar model and Kytö 2010 for an overview).

Landert and Jucker (2011) build on Koch and Oesterreicher in order to develop a model that adds two more dimensions to the dichotomy of phonic versus graphic and the scale of linguistic immediacy: the scale of accessibility and the scale of privacy. The distinction between phonic and graphic is not visually represented in their model. They argue that their model applies both to messages transmitted in the phonic code and to messages in the graphic code. In Figure 3, they provide prototypical examples from the sphere of graphically transmitted messages.



Figure 3: Enriched communicative model (Landert and Jucker 2011: 1427)

The scale of accessibility is defined by the ease of access to a particular message by others. In non-public situations, only very few people have access to a message. A typical message would be a short text message transmitted via a mobile phone intended for one single addressee. Such a message typically – but not necessarily – deals with private topics, which Landert and Jucker (2011: 1427) define as topics that "affect single individuals or very small groups of people", while non-private topics are topics "that lack this concentration on a private individual or a very small group". With this terminological move they disentangle the privacy of topics from the accessibility of messages. This makes it possible, for instance, to describe more accurately what may be seen as a tendency in some sectors of today's mass media to make the private lives of celebrities public. The topics and issues remain private, according to this terminology, even if they are made public, i. e. publicly accessible. Scientific articles are prototypical examples of messages in the graphic code which deal with issues that are not restricted to a small group of individuals and which are made publicly accessible for a larger range of people.

3.2. Online/digital data

The communicative affordances of computer technology that have been developing over the last few decades have added new dimensions to the distinction between spoken and written language. To some extent there is still the dichotomy of the phonic code and the graphic code. We use computers and handheld devices to communicate with our voice (e. g. Internet telephony), and we use the same devices for all sorts of communication in the graphic code. However, the new technology has added an additional layer of affordances and has, therefore, opened up a large range of new research opportunities.

A clear terminology has not yet established itself for this type of communication. The most widespread term is probably "computer-mediated communication". It was already well-established in the 1990s and popularized by Herring (1996). There is a journal which uses this designation, the Journal of Computer-Mediated Communication, and a dedicated handbook (Herring, Stein and Virtanen 2013), entitled *Pragmatics of Computer-Mediated Communication*. But there are a host of other terms, such as "electronically mediated communication" or "electronic discourse", "digitally mediated communication" or "digital communication", "Internet-mediated communication", and "keyboard-to-screen communication" (see Crystal 2011: 1-3; Jucker and Dürscheid 2012: 35-37; or Locher 2014: 555-557 for a discussion of terminology). The different terms focus on different aspects of this special type of communication and they are not always entirely co-extensive in what they include or exclude. Herring's (2007: 1) definition of computer-mediated communication as "predominantly text-based human-human interaction mediated by networked computers or mobile telephone" explicitly includes communication via mobile phones, which begs the question whether mobile phones can be seen as computers. At the time when Herring proposed this definition, this was perhaps less clear than it is today. Terms such as "electronic discourse" (Locher 2014), "digital communication" (Tagg 2015) or "keyboard-to-screen communication" (Jucker and Dürscheid 2012) avoid the issue of classifying the electronic devices used to send and receive messages as computers or not and focus on the way in which the signals are transmitted or how they are encoded and received.

There are several important features that distinguish digital data from spoken and from written data. Spoken communication typically takes place in a situation of synchronicity. The interactants are co-present, if not spatially then at least temporally (e. g. on the telephone). Messages are encoded and decoded at the same time. Written communication, on the other hand, typically takes place in an asynchronous situation. Messages are normally decoded only some time, perhaps even a very long time, after having been encoded. Computer-mediated communication uses the graphic code but it can be more or less synchronous. Jucker and Dürscheid (2012: 39) argue that the term "quasi-synchronous" is more appropriate for this type of communication. It covers all cases in which interactants exchange messages in quick succession, e. g. turn-by-turn in Facebook chat, or message-by-message in WhatsApp conversations. As such the term "quasi-synchronous" in cases where messages are transmitted not turn-by-turn, but stroke-by-stroke. And it coincides more or less with the term "asynchronous" in the case of, for instance, email messages that are exchanged in relatively quick succession.

Two further distinctions that are blurred in many forms of digital data are the oppositions between monologic and dialogic, and the opposition between discourse or text and utterance. Written communication tends to come in the form of monologic texts, while spoken communication most frequently comes in the form of dialogic utterances. For digital data, such a distinction is much less useful.

For chat contributions, to take one specific example, neither the term "text" nor the term "utterance" seems to fit. They are realized in the graphic code, and thus may resemble a text. But they are also spontaneous, unplanned, context embedded (e.g. "What are you doing now?"), short and situated in a dialogic (more precisely: in a quasi-synchronous) context, and thus are more like prototypical utterances. (Jucker and Dürscheid 2012: 40)

As an alternative, Jucker and Dürscheid (2012: 42–44) propose the term "communicative act". Communicative acts can have a high expectation of being taken up and responded to by an interactant (in which case they are more utterance-like) or – at the other end of the scale – a small expectation of being taken up and responded to (in which case they are more text-like). Examples are chat contributions, which have a high expectation of uptake even if some contributions occasionally go unanswered, and user manuals, which have a very low expectation of uptake even if some frustrated user might occasionally try to get in contact with the author of the manual to complain about faulty or inscrutable instructions.

Digital data is further differentiated from traditional written data in its fluidity. Written texts, and in particular printed texts, are characterized by a high level of fixity. Once a text has been printed, it cannot easily be changed. Handwritten corrections within a printed text are easily recognizable as such. New printings of books are, of course, possible and common but each printing stays basically unalterable and fixed in its original form. This is not true for digital data. Texts that are stored digitally can easily be modified. Online news media, for instance, can update their texts on a minute-by-minute basis. This is why it has become standard to add a time stamp to quotations of electronic texts. There is no guarantee that the text is still the same when it is checked some time later.

Finally, digital data are characterized by a vastly increased multimodality. Computer-mediated communication regularly combines language, images, memes, sounds and music. Still pictures and video clips have become very important in many forms of computer-mediated communication, especially on social-network sites or instant messaging applications, such as Facebook, Instagram, WhatsApp or Snapchat (see boyd 2014; Hoffmann and Bublitz 2017).

3.3. Sign language data

The term sign language is here used to refer to a class of languages used by deaf communities, such as German Sign Language or American Sign Language. They are equally complex in their structural features as spoken language, and, of course, they are not to be confused with the improvised gestures used by tourists in attempts to communicate with locals with whom they do not share a common language. In contrast to popular opinion, sign language is not only conveyed through hands but also through body language and facial expressions (Sutton-Spence and Woll 1999: 81; Quinn 2017: 55).

Signs are, of course, a subset of human gestures, just as words are a subset of human vocalizations. Signs are distinguished from gestures by having an internal structure composed of elements which form a system of contrasts, and whose usage is rule-gov-erned. (Woll and Kyle 1998: 855)

Like spoken language, sign language is ephemeral. If it is not recorded, it vanishes without a trace. Both spoken language and sign language are encoded and decoded at the same time, i. e. with synchronous production and reception. While the modality of spoken language is auditory, the modality of sign language is visual-spatial (Quinn 2017: 55). Relatively little is still known about the history of sign language in general and of specific sign languages. Recordings have only become available during the twentieth century. There are older accounts of deaf people who used signs to communicate (going back to Plato), but records or detailed descriptions of the signs that were used are missing (Woll and Kyle 1998: 855). One problem for the investigation of sign languages is that there is no generally accepted notation system. Moreover, photographs and drawings can only reproduce still pictures, and superimposed arrows can only provide a very limited rendering of the dynamics of signing and the way in which hand signs are accompanied and supported by body language and facial expressions (see, for instance, Sutton-Spence and Woll 1999: xi–xxi).

Pragmatic research on sign languages covers a wide spectrum. Groeber and Pochon-Berger (2014) as well as Cibulka (2016) deal with the peculiarities of turn-taking in signed conversations in Swiss German and in Swedish Sign Language respectively. They focus on different types of holds, that is to say the freezing of a sign in turn-final position. The movement of the hand is momentarily suspended while hand shape and hand position are maintained. They show how holds perform important functions in the taking of turns and in the projectability of the next turn. Roush (2011), on the other hand, investigates issues of politeness and impoliteness in American Sign Language. In contrast to Groeber and Pochon-Berger (2014) and Cibulka (2016), who used a corpus of video recordings of signed interactions, he used an ethnographic approach by observing native signers in public gatherings of deaf communities and taking copious field notes (Roush 2011: 338). He focused in particular on metadiscursive terms and markers which were used to evaluate or describe the ongoing interaction. Mapson (2015) used data collected through semi-structured group discussions in order to analyse the ways in which professional interpreters developed their awareness of politeness in British Sign Language.

Kearsy, Smith and Zwets (2013) analysed the framing of constructed actions in British Sign Language narratives, and they used elicitation techniques in order to collect their data. 15 participants with British Sign Language as their preferred language were shown four short film clips and asked to retell the narratives to another deaf native signer of British Sign Language (one of the authors of the article) (Kearsy, Smith and Zwets 2013: 125).

3.4. Data of nonverbal behaviour

The importance of gestures and other forms of nonverbal behaviour in communication cannot be overestimated. As Kendon (2014) points out:

Willingly or not, humans, when in co-presence, continuously inform one another about their intentions, interests, feelings and ideas by means of visible bodily action. For example, it is through the orientation of the body and, especially, through the orientation of the eyes, that information is provided about the direction and nature of a person's attention. (Kendon 2014: 1)

This opens up a vast range of research opportunities for pragmaticists, but there are various ways in which the scope of research can be focused on a subset of the visible bodily actions. The quotation above restricts the focus to those visible bodily actions that have an informative effect on a co-present human being, whether the effect was intended or not. The scope can be further reduced by restricting it to bodily actions that come with a communicative intention by the producer, that is to say actions that are meant to communicate. But this is a very fuzzy distinction and difficult to apply systematically. A more systematic restriction focuses on gestures that are used as part of an utterance, as for instance the use of hands in pointing to an object, in indicating the size or shape of an object or in emphasising what is being said. Cienki (2017) draws the line in a similar way. He focuses on

"movement of the hands and forearms by speakers when the movement is not part of an instrumental action (such as holding a pen and writing) and does not involve touching oneself or another (as in scratching one's head or patting someone on the back)" (2017: 61).

We colour and flavour our speech with a variety of natural vocal, facial and bodily gestures, which indicate our internal state by conveying attitudes to the propositions we express or information about our emotions or feelings. Though we may be aware of them, such behaviours are often beyond our conscious control: they are involuntary or spontaneous. (Wharton 2009: 1)

Research of gestures and nonverbal behaviour shares some of the problems of research of sign languages. There is not a sufficiently established way of capturing the dynamic, spatio-temporal nature of gestures and other bodily actions in sufficient detail, but the problems are exacerbated for gestures because of the fuzzy nature of bodily actions that are relevant for communication (see Kendon 2014: Appendix 1 for a set of transcription conventions for gestural actions; see also Streeck 2009).

4. **Observational data: Four dimensions**

In the previous section, I focused on the different modalities of language and their relevance for pragmatic research. In this section, the focus shifts to four scalar dimensions that characterize observational data. The first dimension is the situational dimension, which distinguishes between speech contexts that are highly constrained in terms of what participants are expected – or indeed allowed – to say at specific points in the interaction and speech contexts that impose few – if any – such constraints on the contributions. The fictionality dimension distinguishes between fictional texts on the one hand and factual texts on the other. The third dimension distinguishes between different levels of researcher interference which ranges from data that came into existence without any researcher intervention and data that were purposefully elicited by a researcher. The fourth dimension, finally, distinguishes between researcher perspectives that focus on very small snippets of data to those that focus on a new generation of mega corpora. The first two are concerned with the researchers and their influence or perspective on the data.

All these dimensions are often invoked – explicitly or implicitly – in discussions about the suitability of certain types of data for specific research questions or even for pragmatic research in general. Here, they are not presented in an evaluative sense. There is no claim that one end of a particular scale is, in general, better than the other end, even though it may turn out to be better suited to specific types of research questions.

4.1. Situational dimension: Constrained versus unconstrained

Levinson (1979) defined the notion of "activity type" in terms of the allowable contributions and the constraints it imposes on participants, setting and so on:

In particular I take the notion of an activity type to refer to a fuzzy category whose focal members are goal-defined, socially constituted, bounded, events with constraints on participants, setting, and so on, but above all on the kinds of allowable contributions. Paradigm examples would be teaching, a job interview, a jural interrogation, a football game, a task in a workshop, a dinner party and so on. (Levinson 1979: 368)

However, it seems clear that not all the activity types that he gives as examples are subjected to the same level of constraints. They can conveniently, but admittedly somewhat impressionistically, be situated on a scale from highly constrained situations to situations with relatively few constraints. At one end of the scale, we find speech situations that assign clear roles to the different participants and impose a large amount of restriction on the allowable contributions. Teaching, job interviews and jural interrogations are obvious examples. In each case the participants are assigned roles that come with very specific expectations as to the contributions that they are to make in this situation. Who asks questions? Who answers them? Who introduces new topics? And so on, At the other end of the scale we find speech situations in which there are no discernible role differences assigned by the situation. The dinner party mentioned by Levinson may be situated close to this end even though there are, of course, differences between the rights and obligations of the host or hostess and the guests. Other obvious examples might be a chat among friends on a long car drive, the locker room exchanges among the members of a sports team before or after a match, or the interactions of a group of children on the playground. In all these situations, there are also expectations as to what are appropriate or inappropriate contributions to the interaction, and some participants play a more important role while others play only subordinate roles. But the roles the individuals adopt are the result of the constellation of participants. They are not imposed by the speech situation in the way that an interview assigns differential roles to the interviewer and the interviewee.

Between the extreme cases there are interesting intermediate cases, such as a football game and a task in a workshop. A game of football imposes specific speaking rights to the referee, the coach and the team captain and imposes sanctionable restrictions on the allowable contributions by all the participants. But in contrast to interviews, spoken contributions are of subordinate importance, and there are few restrictions on the exchanges between the players themselves. A task in a workshop might also impose some restrictions on the allowable contributions, depending on the complexity of the task and the roles of the participants (e.g. supervisor and apprentice, etc.). An additional example would be a chat during a coffee break at a place of work. The situation itself may impose relatively few constraints but the

larger situation of the workplace with its differences in hierarchy may impose its own constraints on who initiates new topics and who breaks up the coffee break to go back to work.

The situational dimension is occasionally invoked in an evaluation of data in that unconstrained data is considered to be more genuine and, therefore, more likely to reveal the intricacies of conversational interaction without the interference of constraints imposed by the speech situation. However, the suitability of relatively constrained or relatively unconstrained data depends very much on the research question at hand. Speech situations, or activity types, cannot be placed on this scale with a high level of precision, but the scale itself helps to create an awareness for the varying importance of such constraints for specific situations.

4.2. Fictionality dimension: Fictional versus factual

Fictional language comes in many different guises. Obvious cases of fictional language are novels or short stories and other narratives that are the product of the imagination of an author without any claims to depict actual people and actual facts. It also includes theatre plays and telecinematic discourse, in which a scriptwriter invents dialogues that are performed by actors. But there is no clear-cut distinction between fictional data and non-fictional or factual data. Historical novels, for instance, may include depictions of historical figures next to invented figures within events that are partly historically attested and partly invented by the author. Television documentaries may include staged conversations performed by actors, and reality television may include a mixture of scripted and improvised conversations (see Jucker and Locher 2017: 5). Everyday conversations may include anecdotes, jokes and even personal narratives that consist of a mixture of factual and fictitious characters and events.

It is useful to draw a careful terminological distinction between the terms "fictional" and "fictitious" (see Klauk and Köppe 2014: 5–6; Jucker and Locher 2017: 6). The former refers to utterances, texts, pictures, movies, comics and so on, while the latter refers to characters, entities and events that have no correspondence outside of the text and do not exist in the real world. Fictional texts, then, deal with fictitious characters, entities and events. Factual texts, on the other hand, deal with characters, entities and events that have an existence in the real world, and in this sense texts can be factual even if they assert falsehoods about these characters, entities and events.

For a long time, pragmatics was not interested in fictional data. It was considered to be artificial, contrived and not sufficiently "real", and, therefore, not suitable for pragmatic analyses. Whenever pragmaticists, for instance in the area of historical pragmatics, resorted to fictional data, they felt the need to apologize for doing so (see for instance Brown and Gilman 1989: 159 or Salmon 1987: 265). They pointed out that in the absence of any "real" conversational data, fictional data seemed to be a reasonably good approximation especially in the case of a skilful dramatist, such as William Shakespeare. Today, fictional data are seen as sufficiently interesting in themselves. They no longer serve as a substitute for "real" data but are analysed on their own terms. Many of Shakespeare's characters talk in iambic pentameters. It is safe to assume that at the turn from the sixteenth to the seventeenth century – or indeed at any other time – probably nobody used iambic pentameters in their everyday interactions. Shakespeare's dialogues do not represent real-life conversations but that does not make it less interesting to investigate the ways in which Shakespeare chose to depict his characters, how his characters interact, how they address each other, how they insult each other, how they are polite or impolite to each other and so on and so forth (see the collection of overviews of pragmatic approaches to fictional data in Locher and Jucker 2017).

4.3. Researcher interference dimension: Low versus high

The researcher interference scale relates to the amount of interference the researcher exerts on the production of language data. At one end of the scale there are language data that were produced entirely without the interference of a researcher. At the other end there are language data that were carefully elicited by a researcher in a highly controlled context. Figure 4 provides relevant examples along the scale.

Researcher			Relevant examples
Interference	Control		
Low	Low	1	Speech recording without researcher involvement
		2	Surreptitious recording by researcher
		3	Non-surreptitious recording by researcher
		4	Participant observation recording
		5	Semi-structured interview
		6	Role play or role enactment
	$\mathbf{+}$	7	Dialog construction task
High	High	8	Oral DCTs

Figure 4: Researcher interference dimension

Speech recordings without any researcher involvement, number 1 in Figure 4, may, of course, be considered to be the most authentic type of data (Kasper 2000: 316) and, therefore, ideal for pragmatic research. It may be argued to be as close as possible to actual speech. However, with this type of recording the researcher depends entirely on the previous availability of data that were recorded for some non-research related purpose. Golato (2017) calls this "naturally occurring data" and refers to Potter's (2002: 541) "(conceptual) dead social scientist's test", which

asks whether the data would still exist even if the researcher got run over on the way to work. The researcher would not be able to carry out an interview, but a counselling session would take place even if the researcher failed to turn up.

Radio and television broadcasts are examples of recordings that do not depend on the presence of a researcher and – as forms of public spoken language – they are generally easily available. This makes them attractive as data for pragmaticists in spite of the lack of the researcher's control over the data. He or she cannot manipulate the situation in order to elicit special types of language patterns, e.g. specific speech acts and the like. The participants of such recordings are obviously aware of the fact that they are being recorded. The recording situation and a potentially very large audience are likely to constrain the language production of the participants in many ways. Thus, in spite of their usefulness, such recordings cannot be used as substitutes for unconstrained language use, and for many research questions such speech recordings are not available at all. Much of the content of the spoken component of corpora consist of such recordings. The Corpus of Contemporary American English, for instance, contains 109 million words of spoken language (out of a total of 520 million words), which consist entirely of transcripts of unscripted conversations from television and radio programmes (http://corpus.byu.edu/coca/) (see, for instance, Leech 2014: 256-260 on the inclusion of spoken language to corpora, such as the BNC or ICE).

This might make it interesting for researchers to collect the type of spoken data that they are interested in by setting up surreptitious recordings, number 2 in Figure 4. This would eliminate the observer's paradox (Labov 1972: 209) that we cannot observe behaviour when it is not being observed, but today's standards of ethical research – and in many countries even legal constraints – rule out such a procedure (see, for instance, Duranti 1997: 117; Flöck 2016: 36). It is no longer acceptable – as apparently it was in the early days of speech recordings – to record people surreptitiously and only ask them after the event (but see Hambling-Jones and Merrison's 2012: 1121 argumentation that in some situations surreptitious recordings and retrospective consent might be superior to pre-obtained consent).

With non-surreptitious recordings, number 3 in Figure 4, the researcher has to accept the observer's paradox and the effects that the recording equipment might have on the participants. This category, of course, comprises a rather large range of possible situations from dinner table conversations to specifically elicited narratives or service encounter recordings. In some cases, the researcher takes part in the conversations that he or she records, which turns them into participant observation recordings. Schiffrin (1987), for instance, carried out what she called sociolinguistic interviews with groups of people from her neighbourhood and with whom she shared an ethnic identity. She points out how her participation complicated the observer's paradox (Schiffrin 1987: 41). The analyst's role might influence the development of the interaction and it might influence the interpretation of the results because the analyst is no longer a neutral outsider. Rüegg (2014), to

mention a more recent example, investigated thanks responses from a variational perspective. She collected her data by recording visits to restaurants in Los Angeles in three different price ranges. The recordings of the interactions between a waiter and a small group of guests were not surreptitious but the interactions clearly had a primary purpose that was outside the linguistic research questions. They had to do with offering and ordering food and drinks and with the incidental necessities of serving food and drinks, clearing the table and so on.

Number 1 to 4 on the researcher interference dimension can all still be considered "naturally occurring data" but it is clear that there are differences in the level of researcher interference and – concomitantly – in the level of researcher control. With participant observations, the researcher can, of course, try to influence the flow of the conversation and thus take at least some control of what kind of language the participants produce, especially if they manage to create speech situations in which the pragmatic element under investigation is likely to occur in a naturalistic way because of the necessities imposed by the situation.

The remaining numbers on the dimension shift the balance from naturally occurring data to elicited data (dealt with in more detail in Schneider, this volume). They impose more and more control on the language production of the participants. While a semi-structured ethnographic interview, number 5, leaves some room for a broader range of responses from participants, role plays or role enactment tasks, number 6, ask for very specific behaviour, in which the responses depend – at least to some extent – on the acting abilities of the participants and their willingness to play along. Dialog construction tasks, number 7, ask participants to create – usually in written form – an entire dialogue including the utterances by several participants in order to elicit the participants' intuition about typical or appropriate dialogues in a given situation. Discourse completion tasks, number 8, finally impose the highest level of control on the participants' language production. Usually they are expected to produce a speech act of a very specific type, such as an apology, a request or a response to a compliment.

4.4. Researcher perspective dimension: Micro versus macro

The researcher perspective dimension relates to the amount of data that is being investigated. It does not distinguish between different types of data as the three dimensions outlined above. It is concerned with the perspective adopted by the researcher. At one end of the scale the researcher investigates a very small amount of usually richly contextualized data, prototypically a single conversation or even just a small extract of a conversation where the researcher knows a lot about the participants and the context in which the conversation took place. At the other end of the scale the researcher searches for patterns of language use in large corpora consisting of millions or even billions of words. Bednarek (2011: 546) illustrates this dimension with Figure 5:

Continuum of text/discourse data

Individual text(s):	Small-scale	Large-scale
case study/ies	corpus	corpus

Figure 5: Researcher perspective dimension (Bednarek 2011: 546)

Case studies of individual texts allow for rich contextualisations while large-scale corpora only provide very minimal contextualisations, that is to say the amount of data and the contextual richness can be seen – in a very abstract way – as a reciprocal function. With an increasing amount of data, the contextual richness becomes smaller and smaller. And, reciprocally, high contextual richness can only be achieved if the amount of data is very small. The investigative precision, to use Leech's term with a slightly different meaning, does not favour one over the other. In fact, the investigative precision can only be increased by increasing the amount of data with a given value of contextual richness or vice versa.

A brief example may illustrate these interdependencies. The phrase *I'm sorry* generally serves as an apology, whose occurrences can be investigated both in a small-scale case study or in a large-scale corpus. In Barbara Kingsolver's novel *Flight Behavior* (2012), there are 20 instances of *I'm sorry*. Each and every one of these instances is richly contextualized, and the reader can work out the level of sincerity that is attached to each one, whether it is a token apology for an interruption as in (1) or whether it is a heart-felt apology for breaking up a marriage as in (2). In an important sense, fictional examples provide a more complete contextualization than real life conversations. In real life, conversationalists under observation from a researcher have a wealth of life experiences that are not accessible to the researcher. In a novel, the depicted characters do not have any life experiences outside of the novel. Whatever is relevant for the novel is depicted in the novel.

- (1) "I'm sorry for the interruption, Bobby," Brenda's mother said, cocking one hand on her hip, doing a poor job of looking sorry. (Page 99, Location 1198)
- (2) "I'm sorry," she said. "I'm thankful for our children. But I'm not what you need." (Page 527, Location 6500)

Figure 7 shows the frequency development of *I'm sorry* over two centuries of American English. It is based on a corpus of digitized texts containing more than five million books and a total of some 361 billion words in English texts (Michel et al. 2010). But these instances are entirely decontextualized. For copy-right reasons the software does not access a database containing all these books but indexed lists of ngrams derived from these books. Each ngram in the database comes with an indication of the year of publication and its language or language variety but it is

disconnected from its actual context. This is an extreme case of a decontextualized database, and it is, therefore, usually shunned by corpus linguists except for some very preliminary initial searches that can be used to ask more specific questions. In this case, it is impossible to ascertain, for instance, whether the phrase *I'm sorry* was indeed used as an apology or perhaps to perform another speech act, as for instance the expression of condolences.

Figure 6 shows that the phrase had a very low frequency in the nineteenth century. Its use increased in the first half of the twentieth century with a noticeable decrease in the 1960s and 1970s and a sharp increase after that, which poses interesting follow-up questions whether the decrease in the 1960s and 1970s could in any way be related to social and cultural developments at the time. However, in order to tackle such questions, the research would have to go back to contextualized data samples (see also O'Keeffe, this volume on the development of *I'm sorry* versus *I apologise*).

5. Conclusion

Pragmatics studies the use of language in all its complexities and diversities, which means that language in all its various forms, shapes and varieties provides the data for pragmatic research. Pragmatics no longer focuses on a single type of data, such as, for instance, spontaneous, multi-party conversations that take place in private settings. Pragmatics is not restricted to the modality of spoken language. It is also concerned with written language, with digital language, with sign language and with all aspects of nonverbal communication. Different types of language data invite different types of research questions, and different research questions require different types of data, as well as different methods of collecting and analysing it (see Félix-Brasdefer 2007; Jucker 2009a; Golato 2017).

In many cases, it is the triangulation of different types of data that provide a better understanding of pragmatic issues. Félix-Brasdefer (2007: 163), for instance, uses both role play data and naturally occurring interactions in his study of requests in Mexican Spanish, and Flöck (2016: 84), who compares requests in British English and in American English, uses both audio recordings of informal, naturally occurring conversations and written production data elicited in discourse completion tasks. In both studies the combination of data and methods provided a more comprehensive view of requests than a reliance on one type of data would have made possible.

This introductory chapter has given an overview of different types of data in pragmatic research (data collection methods are covered by Schneider, this volume). Such a task is potentially boundless because virtually all the existing literature in pragmatic research could be situated within the scope of this paper. I have, therefore, focused on the relevant modalities (spoken, written, digital, signed,



Figure 6: "I'm sorry" in American English from 1800 to 2000 (http://books.google.com/ ngrams/)

nonverbal) and their impact on pragmatic research as well as the relevant data dimensions (level of constraints and fictionality) and researcher dimensions (inter-ference/control and research perspective/data size).

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2. Methods and ethics of data collection

Klaus P. Schneider

Abstract: This chapter provides an overview of methods and data collection procedures employed in research in pragmatics. Specifically, the focus is on using a corpus and recording naturally occurring spoken discourse, and on production tasks (eliciting conversation, role plays, interviews, discourse completion tasks), and comprehension and judgement tasks (multiple choice tasks, rating scales). In this survey of methods, an attempt has been made to include many different approaches and research traditions, among them speech act analysis, conversation analysis, discourse analysis, Gricean pragmatics, cross-cultural pragmatics, interlanguage pragmatics and (im)politeness research. It is emphasized that there is no best method, that all methods have advantages and disadvantages, and that each method can be used for some purposes but not for others. Therefore, the choice of method depends on the type of research, the research goals and the research questions. There is also a discussion of research ethics, notably the principles of welfare, autonomy, privacy and indebtedness. It is stressed that research ethics has a historical dimension and can be conceptualized as a process of increasing sensitivity. Some practices which were permissible or commonly used in the twentieth century, are not acceptable any longer and considered unethical in pragmatics research today.

1. Introduction

In surveys of methods in pragmatics research, data types and data collection procedures are usually dealt with together. In this handbook, however, we have decided to tease them apart analytically and treat them separately to offer complementary perspectives on crucial methodological issues and thus provide a differentiated view of topics researchers in the field should be aware of. The following example is given to highlight and illustrate the range of issues addressed in this chapter 2.

The probably best known and most influential paper ever written about the speech act of compliment was authored by Manes and Wolfson (1981). On the very first page of their paper, they include the following methodological statement:

It is our conviction that an ethnographic approach is the only reliable method for collecting data about the way compliments, or indeed, any other speech act functions in everyday interactions. (Manes and Wolfson 1981: 115) This far-reaching methodological claim that ethnographic field work, i. e. taking field notes, is "the only reliable method for collecting data" not only for the analysis of compliments, but of any speech act, has received a lot of criticism, as in fact have the results of Manes and Wolfson's study (e.g. Jucker 2009: 1621–1622). They found that in their corpus of 686 American English compliments, gathered by the two researchers and also the students taking their courses, three syntactic constructions prevailed, of which the most frequent one alone accounted for more than fifty per cent of all compliments collected. They furthermore found that in more than two thirds of their compliments, the positive evaluation was expressed through an adjective and that the same five adjectives were used in most cases. In view of these findings on recurring syntactic and semantic patterns, Manes and Wolfson described American English compliments as highly formulaic. This conclusion has, however, been challenged by pointing to the possibility that the two researchers or at least their students gathering the data may have noticed only those formulaic compliments they collected, while less prototypical ones, i. e. less formulaic, more original or more indirect ones, may have gone unnoticed. Moreover, it has justly been criticized that hearing may not have been accurate, since it has been shown that, while it is possible to remember individual words, routines or short phrases with some accuracy, it is difficult to recall the exact wording of entire utterances just overheard, even immediately after hearing them, as the short-term memory is much shorter than people commonly believe (cf. Yuan 2001: 288). These two problems, i. e. a focus on stereotypical realizations and inaccurate hearing, cast serious doubt on the reliability of "the only reliable method" and shows that this particular approach definitely has some shortcomings. On the other hand, there are also obvious strengths. One is that the ethnographic approach is very unobtrusive. It can be used to record at least some aspects of naturally occurring everyday interactions while avoiding the "observer's paradox" (Labov 1972). Further advantages include that the researcher does not depend on the availability and functioning of electronic recording devices. Also it is not necessary to ask the people observed and recorded their consent, neither before nor after taking field notes, while getting consent prior to recording people electronically is an important legal and also ethical issue (see section 4 below). All of the topics illustrated in this example - i. e. strengths and weaknesses of data collection methods, reliability, technical, legal and ethical concerns - will be discussed in detail in the present chapter.

Regarding Manes and Wolfson's article on American English compliments and their formulaic nature and the methodological claim the authors make in it, it must be borne in mind that their article appeared as early as 1981 and that the research reported must have been conducted even earlier. In other words, their article was published at a time when several alternative methods and data collection procedures were not yet available. At that time, recording devices were, as a rule, much bigger and used some kind of tape or disc, corpora of spoken language were much smaller and not generally accessible, and experimentational methods such as discourse completion tasks had not yet been invented (cf. Ogiermann, this volume). This example demonstrates that the inventory of data collection methods in pragmatics research has developed and grown over time. It would in fact be intriguing to write a history of methods in pragmatics. This, however, is not the aim of the present chapter.

The aim of this chapter is to provide an overview of the many different data collection methods used in pragmatics research today. In this endeavour, a non-evaluative stance is adopted. In this handbook, we firmly believe that there is no best method as such. As each and every method has advantages as well as disadvantages, choice of method depends entirely on the research goals and the research questions to be answered. One method may be better suited to provide an answer to a particular question than another method, but for a different question it may be just the other way around. Therefore, researchers must be clear about the questions they address, and, more generally, which overall approach they wish to adopt and which type of research they want to carry out, and make their methodological choices accordingly. We further believe that any discussion of data collection methods should be free of ideologies. Hence, it is intended to do justice to each data collection procedure, to highlight its respective merits, but to also point out its respective weaknesses so that informed choices can be made. Finally, to compensate for the disadvantages of any chosen method and thus increase its validity, triangulation is recommended, i. e. the combination of different methods and a comparison of data from different sources.

In his monograph on *Research Methods in Applied Linguistics*, Dörnyei (2007) devotes the last chapter to the question "How to choose the appropriate research method" and gives two general recommendations. His first recommendation is summarized as follows: "*feel free to choose the research method that you think will work best in your inquiry*" (Dörnyei 2007: 307; original italics). He further elaborates this recommendation:

At the end of the day, research is not a philosophical exercise but an attempt to find answers to questions, and just as we can go about this in our everyday life in many different ways, the varied palette of research methodology is clear evidence for the possibility of diverse solutions in the scientific enquiry. (Dörnyei 2007:307)

In this handbook we unreservedly subscribe to the position that research is about finding answers to questions. On the other hand, we would like to stress the crucial role that such questions play in the selection of a data collection method and concerning the appropriateness and suitability of each method for addressing a specific set of research questions. It has, however, to be conceded that other factors also influence the choice of method, e. g., as Dörnyei (2007: 308–312) points out, personal style, personal training and personal experience. And these factors, no doubt, have also influenced writing the present chapter.

The second general recommendation which Dörnyei offers, namely that "*it is* worth considering applying a mixed methods research design in every situation"

(2007: 313, original italics) cautions against the dangers of "monomethodologies" (cf. Miles and Huberman 1994: 43) and underscores our recommendation of triangulation to increase the validity of results. It has to be noted, however, that the concept of "mixed methods research design", which is currently popular in many areas of applied linguistics and beyond, refers to a combination of qualitative and quantitative methods (cf. Angouri 2009, Kim 2013), whereas "triangulation" refers to any combination of different data collection procedures and of data from different sources (cf. Bednarek 2011: 551–552).

The present chapter provides a general overview of data collection methods used in a wide range of approaches and frameworks, with their strengths and weaknesses (section 3), as well as a discussion of practical, legal and ethical issues involved in collecting data (section 4). These discussions are prefaced by general considerations concerning the types of research which provide the coordinates for any investigations in the vast field of pragmatics (section 2).

2. Types of research: Some basic distinctions

Given the centrality of research questions and their importance for the selection of suitable methods and data collection procedures, it is necessary to first briefly consider and discuss the nature of research and the types of research contexts in which different types of questions are asked. Such types of research can be characterized with reference to a number of fundamental distinctions captured by the following dichotomies, which are essentially relevant to any kind of (language-based) research, but will be made immediately relevant to research in pragmatics in the ensuing discussion.

- (1) Empirical versus non-empirical
- (2) First order versus second order
- (3) Inductive versus deductive
- (4) Comparative versus non-comparative
- (5) Longitudinal versus non-longitudinal
- (6) Diachronic versus synchronic
- (7) Representative versus non-representative
- (8) Qualitative versus quantitative
- (9) Micropragmatic versus macropragmatic
- (10) Spoken versus written

2.1. Empirical versus non-empirical

It is fair to say that most work in pragmatics today is empirical, i. e. using data collected one way or another, by employing one or more of the procedures and instruments which are discussed in more detail in section 3 below. In more precise terms, empirical work is based on data gathered from people other than the researcher. By contrast, non-empirical work does not involve data gathered from other people. In this case, researchers rely exclusively on their own everyday communicative experience and their pragmatic competence, usually as native speakers of the language they are interested in, sometimes generalizing their specific experience and competence as universal.

Initially, in the early days of pragmatics, work was not empirical. Language philosophers such as Austin, Searle and Grice illustrated their theories with fabricated examples. Austin and Searle were speech act theorists. Speech act analysis, on the other hand, as an empirical discipline, was started when linguists, inspired e.g. by Ervin-Tripp's account of alternative realizations of requests in American English (Ervin-Tripp 1976), began to systematically investigate the actual linguistic and situationally appropriate realization of speech acts in large collections of data gathered from people other than the researcher. Classical examples include Manes and Wolfson's and Holmes' work in sociolinguistics, using the ethnographic method (Manes and Wolfson 1981, Holmes 1986, 1988), or Blum-Kulka et al.'s and Trosborg's work in applied linguistics, and specifically in cross-cultural and interlanguage pragmatics, using discourse completion tasks and role plays (Blum-Kulka et al. 1989, Trosborg 1995).

After the "empirical turn in linguistics" (Taavitsainen and Jucker 2015), non-empirical research has sometimes been referred to as "armchair linguistics", using Fillmore's derogatory term (Fillmore 1992). Jucker (2009), however, points out that some ground-breaking research in pragmatics was in fact non-empirical, including the works of the philosophers Austin, Searle and Grice. This is also true of early politeness theories developed in linguistics, such as Lakoff's (1973) and Leech's (1983) theories as well as of other revolutionary work in twentieth-century linguistics, including work by de Saussure (1916) and Chomsky (e. g. 1957, 1965). The "armchair method", i. e. researchers relying on their own competence and everyday experience as a competent speaker of a language, should therefore not be rated negatively.

It is often argued that "armchair pragmatics" is also data-based and, hence, empirical. In this case, the data used is usually called "introspective". This term is, however, ambiguous. In "armchair pragmatics" it means that researchers tap their own competence, whereas in psycholinguistics it means tapping the competence of (a large number of) informants in an experiment (cf., e. g., Færch and Kasper 1987). To highlight the essential difference between psycholinguistic experiments on the one hand and armchair pragmatics on the other hand, data in the latter approach are referred to (maybe less respectfully) as "intuitive", "fabricated" or "invented".

Armchair pragmaticists, using only their own individual communicative experience and pragmatic competence, are not only researchers illustrating their theoretical claims, but also playwrights and writers of prose fiction as well as authors of textbooks for (foreign) language teaching. While textbooks for foreign language teaching purposes are often written by teams including native speakers of the learners' target language and native speakers of the learners' native language, there are also some rare cases in which playwrights do not rely on their individual communicative competence alone, but prefer to develop their plays from scratch with their actors (cf. Clements 1983). It has been suggested that dramatic dialogue provides competence data underlying actual performance, rather than actual performance data (e. g. Lakoff and Tannen 1984), and this also applies to dialogue in prose fiction. Needless to say, dramatic dialogue and dialogue in prose fiction are mostly devoid of what has been termed "normal non-fluency" (Short 1996), i. e. hesitations, backchannelling, interruptions, overlap, and so on (cf. Bublitz 2017, also Jucker 2015). The same is true of the examples of language use produced by researchers employing the armchair method.

2.2. First order versus second order

The distinction between first-order and second-order conceptualizations, originally made in systems theory, is especially popular in (im)politeness research (cf. Watts, Ide and Ehlich 1992: 3–4). Kádár and Haugh (2013) define this distinction in the following way:

The terminology of first-order and second-order is used in various fields of linguistics, as well as other areas. In general, a first-order conceptualization refers to the way in which a phenomenon is perceived by its users, while second-order describes a more abstract, scientific conceptualization of the given phenomenon. (Kádár and Haugh 2013: 41)

Brown and Levinson's politeness theory (1978, 1987), for example, has been criticized for being based on a second-order concept of politeness, while researchers such as Watts (e. g. 2003) have called for an analysis of first-order conceptualizations, i. e. how ordinary language users interpret and understand politeness. First-order conceptualizations of politeness, rudeness, appropriateness, and so on can be elicited e. g. in perception studies in which judgement tasks and rating scales are employed (cf. section 3.4.2 below). First-order conceptualizations of speech acts, on the other hand, can be elicited e. g. in meta-pragmatic interviews, in which ordinary language users may be asked to define particular speech acts (e. g. compliments or threats) or to report events in which particular speech acts occurred (cf. section 3.3.3 below). More generally, first-order conceptualizations of pragmatic phenomena (e. g. speech acts, discourse genres, courtesy, banter) can also be examined by analysing the use of meta-pragmatic terms (e. g. *compliment, small talk, face*) in fictional and non-fictional discourse (cf. Culpeper 2011, Jucker and Taavitsainen 2014, Schneider 2017).

2.3. Inductive versus deductive

A further relevant distinction is that between inductive and deductive research. Researchers employing the armchair method usually work deductively. They fabricate utterances as examples to prove a point or illustrate a theory. At the other end of what can be seen as a continuum, researchers in conversation analysis and interactional linguistics work radically inductively by subscribing to the ethnometh-odological principle of "unmotivated looking" or, more generally, "ethnometh-odological indifference" (Garfinkel and Sacks 1970: 345–346), i. e. approaching data, as a default audiotaped naturally occurring conversation, in an unprejudiced manner and letting patterns emerge from the data. This approach is also referred to as purely data-driven. Most work in other areas of pragmatics research is located between the endpoints of the deductive-inductive continuum, usually closer to the inductive end, analysing collections of data guided by theories and hypotheses.

2.4. Comparative versus non-comparative

Work in conversation analysis is comparative in a very general sense of the word. Essentially this work is about structural or, more properly, "organisational" similarities between speech events under comparable circumstances, e.g. telephone calls to an emergency hotline as in Sack's early work. Such similarities include, for instance, what is said at the very beginning or the very end of telephone conversations.

More commonly, however, comparative research in pragmatics is aimed at contrasting different languages and cultures, often for the purposes of foreign language teaching and learning, and, more recently, at contrasting different varieties of a language or social groups sharing the same language. Relevant disciplines are contrastive pragmatics, cross-cultural pragmatics, interlanguage pragmatics and variational pragmatics (cf. Blum-Kulka et al. 1989a, Barron and Schneider 2009, Beeching and Woodfield 2015). Pragmatics research in sociolinguistics, by contrast, was originally non-comparative, focused on one language or one specific variety of a language alone. Classical examples are Pomerantz's study of compliment responses (1978), Manes and Wolfson's study on compliments (1981), and Ervin Tripp's study of requests (1976). All of these studies are focused exclusively on American English, but they are not interested in variation within American English, e. g. across regions, ethnic communities or age groups. More recent sociolinguistic studies in pragmatics are, however, comparative in the sense that they compare their own empirical findings to the findings from earlier studies on the same phenomena. An early example is Holmes' (1995) study of compliments in New Zealand English, in which Holmes explicitly compares her own results to those by Manes and Wolfson on compliments in American English. Holmes furthermore examines gender differences as well as situational variation, notably power differences and differences in social distance. The study of situational variation can also be characterized as comparative, as different interpersonal relations and constellation and different types of social context are contrasted. Sociolinguistics today is no longer interested in examining speech acts in a national variety of a language, or in gender variation and situational variation alone. Much work in sociolinguistic pragmatics is now focused either on micro units such as discourse markers, quotatives and question tags or on more global concepts such as politeness, relational work and discursive identity construction. Regional, socioeconomic, age and ethnic variation are also taken into account in sociolinguistic pragmatics (cf. e. g. Macaulay 2009, Holmes et al. 2012, Pichler 2013).

Early work in pragmatics was not interested in variation and, hence, not in comparison. Speech act theorists and philosophers such as Austin, Searle and Grice, while using examples from their native English (for which they were later accused of an ethnocentric bias, cf. Wierzbicka 1985), wanted to explore the fundamental nature of human verbal communication. Similarly, politeness theorists of the first generation were interested in the universals of language usage, e. g. Leech (1983) and, most explicitly, Brown and Levinson (1978, 1987). This also applies to early work in impoliteness theory, e. g. to Culpeper (1996), who based his initial approach on Brown and Levinson's theory. Today, however, there is a general awareness of differences between languages and cultures and also between varieties of the language and between subcultures and social groups. This applies in particular to so-called Continental-European pragmatics (cf. Huang 2010), but not to the Anglo-American approach, i. e. Gricean pragmatics, nor to conversation analysis.

2.5. Longitudinal versus non-longitudinal

Research in pragmatics is not, as a rule, longitudinal, i. e. does not follow the same informants across a time span of several years. Most empirical work provides a synchronic snapshot, that is to say an insight into how language users behave at a given point in time. Exceptions include studies on the pragmatic development in a foreign language during a year abroad, i. e. ten to twelve months spent by school-children or, more commonly, college or university students in a foreign country in which their target language is spoken natively (e. g. Barron 2003, Schauer 2009, Ren 2015a). By contrast, studies interested in pragmatic age variation are not normally real-time longitudinal studies, but apparent-time cross-sectional studies, i. e. comparing different age groups coexisting at the same time (e. g. Dinkin, in press). This approach is also suitable for doing research on language change.

2.6. Diachronic versus synchronic

The distinction between diachronic and synchronic research is often not well understood by students who mistake diachronic research for research on historical language and synchronic research as research on present-day language. While it is true that pragmatics research is predominantly focused on present-day language use, historical pragmatics is also a burgeoning field (cf., e. g., Jucker and Taavitsainen 2010). Within this field, a distinction can be made between historical pragmatics in a narrow sense, i. e. synchronically focused on a period of time in the history of a language, and diachronic pragmatics interested in language change, i. e. comparing periods in the history of a language to examine variation in time (cf. Jacobs and Jucker 1995). Diachronic pragmatics, although usually conceptualized as a branch of historical pragmatics in the broad sense of the term, is not restricted to the study of historical language, but may also deal with recent or ongoing changes in language use. An example is Dinkin's study of responses to thanks in Canadian English (in press), in which he compares juvenile and older speakers and their use of different response realizations, based on which he postulates ongoing language change in responding behaviour. A further example is Chen's partial replication of an earlier study of compliment responses in American English and Chinese (Chen 1993). Chen replicated the Chinese part of this earlier study, employing the same production questionnaire, which includes four discourse completion tasks, and collecting his data in the same city in the People's Republic of China, i. e. Xi'an, to warrant immediate comparability (Chen and Yang 2010). He found that Chinese speakers no longer overwhelmingly rejected the compliments, thus following Leech's modesty maxim (Leech 1983), but predominantly accepted the compliments, thus following Leech's agreement maxim. After approximately seventeen years, the Chinese responses had become more similar to the American responses established in the earlier study, thus reflecting, Chen and Yang argue, the economic and societal changes in mainland China. This example illustrates that diachronic work is also a type of comparative research, and that comparability is an important issue in this type of research and crucial for arriving at reliable results (cf. Schneider 2014). A further example is Jucker and Landert (2015), who do not examine speech acts in everyday conversation, but turn-taking and narrative structures in radio talk shows. Overall, however, studies analysing recent and ongoing changes in language behaviour are still relatively rare.

2.7. Representative versus non-representative

Students often ask whether an empirical study in pragmatics is representative or not. What they usually mean is whether the population involved in an empirical project and the sample used are large enough to yield reliable results. Yet, representativeness is not a matter of quantity. Rather, the question is: representative of what? Generally, empirical studies in pragmatics focused on a particular country, e. g. the United States of America or the People's Republic of China, or a national variety of a language, e. g. American English or New Zealand English, are not representative of the entire population in the respective nation-state. That is to say, such studies do not normally work with carefully stratified samples reflecting the overall demographic composition of the population in the nation-state in question. In this regard, studies in pragmatics cannot compete with studies in e.g. sociology or other social sciences. In fact, there is one particular sociological group whose verbal behaviour pragmaticists know more about than about the behaviour of any other group of society. This group is the group of college and university students, as researchers often, and for obvious reasons, recruit their own students as "guinea pigs" in their empirical work, and this does not apply to pragmatics alone, but also to linguistics at large and many other disciplines interested in human behaviour, e. g. psychology (cf. Kasper 1993). In other words, researchers frequently use what is known as a "convenience sample", which is understandable considering the practical difficulties in recruiting informants for a study, and feasibility should not be underestimated (Edmondson 1981: 78). On the other hand, students, depending on their teachers and lecturers, may not participate voluntarily, which is a serious ethical issue (cf. section 4 below). Moreover, as students of linguistics and pragmatics, these informants are not, strictly speaking, ordinary language users. Accordingly, findings from studies involving students, and especially the researcher's own students, should be interpreted cautiously and not be overgeneralized.

2.8. Qualitative versus quantitative

By and large, pragmatics research used to be qualitative rather than quantitative. Researchers are interested in, for instance, the communicative functions of discourse markers, the mechanisms of turn-taking, the options available for realising a particular speech act in a given language, or strategies of being polite or impolite. At the same time, researchers use relatively large populations and data sets and apply to them statistical analyses, mostly descriptive statistics (cf., e. g., Ogiermann and Sassenroth 2012). In the context of empirical pragmatics research, "relatively large" usually means several hundred. For example, for their study of apologies in email discussion lists, Harrison and Allton (2013) analysed 260 instances. Manes and Wolfson's (1981) study of compliments in American English was based on 686 ethnographically collected instances. Spencer-Oatey et al. (2008) gathered 2,490 reactions to compliment responses by employing multiple choice tasks. Blum-Kulka et al. (1989a: 16) used DCTs to collect over 30,000 instances of requests and apologies, rendering their Cross-Cultural Speech Act Realization *Project* one of the largest, if not the largest, empirical project in speech act research to date. By contrast, in their recent study of apologies in Australian English and Bahasa Indonesian, Jones and Adrefiza (2017), who were also interested in gender differences, involved a total of only 24 informants altogether, six male persons and six female persons each representing the two language varieties under study (Jones and Adrefiza 2017: 97). These informants were given three discourse completion tasks, orally administered, providing a maximum of 72 apologies in all (although the appendices seem to suggest that a much smaller number of instances was given; cf. Jones and Adrefiza 2017: 113–118), rendering their design a case studies approach rather than anything else. Even though the two authors do not provide percentages but raw numbers, great caution is required to draw any conclusions from such small datasets, given that some of the features analysed, e. g. intensifiers, occur with frequencies between 0 and 3 instances (Jones and Adrefiza 2017: 106).

Despite the availability and accessibility of machine-readable corpora, some of which are extremely large, the amount of data for empirical studies, especially in the area of speech act research, cannot be easily increased beyond the numbers given in the preceding paragraph. The main reason for this is that function-toform searches, taking illocutionary categories as their starting point to find realizations of a given speech act, are not, or only rudimentarily, available at present (cf. O'Keeffe, this volume), since pragmatic corpus annotation is still in its infancy (cf. Archer and Culpeper, this volume). However, as several attempts are currently being made to improve this situation, it should soon be possible to make better use in pragmatics research of the enormous quantities available in language corpora.

2.9. Micropragmatic versus macropragmatic

Very many studies in empirical pragmatics have a micropragmatic focus. These studies are either focused on individual speech acts, as in, first and foremost, contrastive, cross-cultural and intercultural studies, predominantly employing discourse completion tasks and also role-plays. Or they are focused on units smaller than speech acts ("micro units", cf. chapter 1 of this volume), e. g. discourse markers, as in some studies in variational pragmatics, in which corpus-linguistic methodology is preferred (e. g. Aijmer 2013). Historical pragmatics also has a traditional micropragmatic focus (e. g. Jucker and Taavitsainen 2008) as well as work in the Gricean tradition, which, while not interested in speech acts, predominantly concentrates on utterance-size units in their analyses.

A macropragmatic focus, on the other hand, is found in areas sometimes considered outside the scope of pragmatics, especially from the perspective of researchers working in the Gricean tradition. These areas are in particular bottom-up conversation analysis and top-down discourse analysis. In this handbook, and in the handbook series this volume belongs to, CA and DA are, however, considered integral parts of and important disciplines in pragmatics (cf. Schneider and Barron 2014). Scholars doing research in these two particular traditions are interested in, among many other phenomena, speech act sequences and other units larger than individual utterances ("macro units", cf. chapter 1 of this volume) such as remedial interchanges (e. g. Owen 1983), conversational openings and closings (e. g. Schegloff 1972, Schegloff and Sacks 1973) as well as entire speech events such as service encounters (e. g. Félix-Brasdefer 2015). As a default, research of this type is based on self-compiled, and therefore relatively small, corpora of audio recordings or, more recently, video recordings, especially when the focus of analysis includes non-verbal communication and multimodality.

2.10. Spoken versus written

Given its roots in speech act theory and considering the great impact of ethnomethodology and conversation analysis, pragmatics has a traditional focus on spoken rather than written language. Needless to say, however, written language is also used communicatively, intentionally and for practical and social purposes, i. e. to get things done and to manage interpersonal relations, and this includes hand-written and machine-written texts as well as digital manifestations of written language (for further differentiations, cf. chapter 1, this volume). The pragmatics of written language use has been studied from various perspectives in discourse analysis, critical discourse analysis (CDA), text linguistics, text analysis and genre analysis (for overviews, cf., e. g., Mahlberg 2014, Wodak 2011, Esser 2014, Tardy and Swales 2014). Investigations have dealt with discourse types, genre conventions, structural, functional and contextual features, sequential aspects, obligatory and optional elements, and manipulative representations of events, to name but a few focuses of analysis. These examples once again show that the nature of the research questions depends on the respective theoretical background and disciplinary affiliation of the researchers, which impact the choice of method and data collection procedure (cf. also Bednarek 2011: 546–551). Research on the pragmatics of written language use was initially based on small self-compiled corpora of texts, e.g. research articles, as, for instance, in Clyne (1987). Clyne examines 26 research articles authored by native speakers of Australian English and 26 research articles by German scholars, of which nine were written in their native German and 17 in English as a foreign language. His study is comparative in two ways, as he contrasts academic styles in research articles not only across languages, but also across disciplinary cultures, specifically in linguistics and sociology. Today, researchers investigating the pragmatics of written discourse frequently employ large machine-readable corpora, irrespective of the framework that they work in. Yet, whether or not large machine-readable corpora are employed depends again on the specific research questions researchers wish to answer, and in particular, of course, whether a suitable corpus is actually available. Barron (2012), for example, is a large-scale contrastive genre analysis of 34 public information messages, such as government initiated road safety or health campaigns, in Ireland and Germany, which includes both written and spoken language (as well as visual communication and music) and considers a total of 244 written or spoken texts (posters and messages in print media, and clips on radio or television and in the cinema). For this particular project, no corpus was already available, it had to be specifically compiled.

3. Strategies and instruments for data collection

Against the background of the discussion of types of research in the preceding section, the present section provides an overview of strategies and instruments for data collection used in pragmatics (cf. also Kasper and Dahl 1991, Kasper 2000, 2008, Jucker 2009, Bednarek 2011, Golato and Golato 2013, Leech 2014: 247–260). Previous overviews are often focused on particular areas of pragmatics, e. g. interlanguage pragmatics, or particular units of analysis, e. g. speech act analysis. Methods employed in the Gricean paradigm are, as a rule, not included (cf., however, the chapters by Clark and by Gibbs, this volume). This means that the focus is mostly on production rather than on comprehension. Furthermore, there is a strong bias towards spoken language in these overviews, methods of collecting written data are not normally covered; Archer et al. (2012: 11–23), although quite brief, and especially Bednarek (2011) are two exceptions. While most authors provide a general overview, Cohen (2012), in his survey of research methods in intercultural pragmatics, takes the example of doctor-patient interactions to discuss methodological issues, including issues of research design, data collection, and data analysis.

Data collection methods in pragmatics research can be subsumed under three headers: intuition, observation and experimentation. For these three broad categories, Jucker (2009), in his survey of methods for speech act research, adopts the metaphors "armchair", "field" and "laboratory" (cf. Clark and Bangeter 2004). Prototypical armchair research, in which researchers exclusively rely on their own communicative experience and pragmatic competence, and which is therefore defined as individual second-order introspection (cf. section 2), can be used to deductively develop theories and to postulate e.g. principles and maxims of communication. "Armchairing" has been used by language philosophers and theorists to formulate e.g. speech act theory, relevance theory, and (early) politeness theories, the Co-operative Principle (CP) and Politeness Principle (PP), conversational maxims and politeness maxims (e.g. Austin 1962, Searle 1969, Sperber and Wilson 1995, Grice 1975, Leech 1983). This method is not an empirical method. Individual intuitions of the researchers are not data in the sense this term is usually used in. No tools or specific procedures are available or employed to collect these data. Therefore, the armchair method is not further discussed in the present chapter (cf. the chapters by Bublitz, Sbisà, Huang, and Clark in Part II of the present volume). Jucker (2009: 1615), who calls the prototypical armchair method "philosophical method", also classifies the "interview method" as an armchair method, because it is also based on intuitions, specifically the intuitions of the interviewees. Yet, since interviewing involves collective (first-order) introspection and requires the recruitment of informants, audio- or video-recording and transcription work, it is dealt with in the present chapter as an experimentational method (cf. Félix-Brasdefer and Hasler-Barker 2017). The general focus of the present section is on empirical pragmatics and, since observational data are dealt with in more detail in chapter 1 of this volume, especially on experimentational methods of data collection. All methods discussed, are presented under the headings "Using a corpus" (section 3.1), "Recording naturally occurring spoken interaction" (3.2), "Production tasks" (3.3), "Comprehension tasks and judgement tasks" (3.4), and "Further data collection methods" (3.5). Each experimentational method is exemplified by individual studies, classical and recent, to highlight and illustrate crucial issues pertaining to each method, especially problems of experimental design and problem-solving strategies, as well as the suitability of a method for specific types of research and the potential for providing answers to particular research questions.

3.1. Using a corpus

Empirical pragmatics, by contrast to armchair pragmatics, requires a data corpus, in the general and broad sense of the term. This applies to both fieldwork and laboratory work, respectively requiring a corpus of observational data and a corpus of experimentational data. In linguistics today, the term "corpus" is used in a narrow and very specific sense, referring only to very large electronic machine-readable collections of spoken and/or written language, which were not, as a rule, compiled for any particular research purpose, let alone any particular type of research in pragmatics. Examples of this kind of corpora include the British National Corpus (BNC), the Corpus of Contemporary American English (COCA), and the national or regional corpora belonging to the International Corpus of English (ICE). In general, however, any collection of data, small or large, and whether machine-readable or not, is a corpus. A corpus, in this broad and general sense, may already exist prior to a research project, as is the case for the above examples, or it may be compiled by the researchers themselves for a specific project (cf. Andersen, this volume). Self-compiled corpora are usually much smaller than pre-existing machine-readable corpora in the narrow technical sense, but are tailored to a particular research purpose and permit better control of relevant contextual and demographic variables. In pre-existing large corpora, information about contexts and demographic features of interlocutors are only rarely provided as comprehensively and systematically as in the Santa Barbara Corpus of Spoken American English, if at all. Overall, corpora provide big data, but not big context (cf. Taavitsainen and Jucker 2015: 18).

Using language material from large machine-readable corpora is usually classified as a field method, i. e. a method of gathering naturally occurring data (sometimes called "natural", "naturalistic", "authentic" or "observational"). However, corpus data do not all qualify as observational data. They are naturally occurring to the extent that their existence does not depend on a researcher. Yet there are significant differences between the data types included in machine-readable corpora, sometimes even in the same corpus. A corpus may include written and spoken language, everyday conversation and institutional discourse, fictional material such as novels, film scripts and drama, and nonfictional material such as naturally occurring talk. While there is a long tradition of using drama in discourse analysis (cf. Schneider 2011), there are, of course, also important differences between fictional dialogue on the one hand and authentic conversation on the other hand. Fictional dialogue in prose and drama are (primarily) written representations of talk which do not include what has been termed "normal non-fluency" (cf. section 2.1). COCA, for instance, to highlight a further relevant issue, is popular because of its large size, up-to-dateness, general availability and ease of access, yet it includes exclusively spoken and written media language, e.g. from radio and television programmes, and newspapers and magazines. Some television programmes may be scripted, other programmes, for instance documentaries, may include casual everyday conversation. Researchers must be aware of the specific nature of pre-existing corpora and the data types they contain and select the material for their analyses very carefully. It is definitely helpful that large machine-readable corpora are, as a rule, subdivided into relevant categories, e.g. "spoken", "conversation", "academic"; these categories are, however, not well defined. They are mostly rather broad, lumping together different discourse types and genres, and they vary across corpora.

Large machine-readable corpora are most effectively used in work on the micro-pragmatic level, notably in work on micro-units such as discourse markers and similar phenomena. Form-based corpus searches for such units are quick and exhaustive (cf. O'Keeffe, this volume). These units can then be studied in the co-text of entire speech events. Searches for larger and, more importantly, more variable units such as speech acts are less successful. This applies even to speech acts whose realizations are relatively fixed. For example, in their search for compliments in the BNC, Jucker et al. (2008) found that even the highly routinized syntactic and semantic patterns identified by Manes and Wolfson (1981) in their seminal ethnographic study of American English compliments, which were used as search strings, did not yield the expected results. On the one hand, along with compliments utterances were retrieved which were not compliments although they displayed the same structural properties. On the other hand, compliments structurally not corresponding to the search strings were not found. To overcome these problems of precision and recall, a certain amount of manual sifting was necessary. A popular strategy in corpus-based speech act analysis is the employment of illocutionary force indicating devices (IFIDs) such as performative verbs (e. g. invite, offer, apologize) or other devices used in explicit realizations of speech acts such as sorry in apologies. Harrison and Allton (2013) and Lutzky and Kehoe (2017) are two recent studies that proceed in this fashion. Both studies examine apologies in a written digital genre, namely in emails and blogs respectively. Harrison and Allton (2013) base their analysis on a self-compiled corpus of email messages sent to discussion lists on academic and professional topics; Lutzky and Kehoe (2017) worked with a sub-corpus of the Birmingham Blog Corpus (somewhat confusingly referred to as BBC) and compared their results to Deutschmann's (2003) BNC findings. For their searches, both Harrison and Allton (2013) and Lutzky and Kehoe (2017) used a small inventory of IFIDs which included not only sorry and apologize but also e. g. excuse, forgive and regret. Needless to say, lexemes such as the latter three occur in a range of speech acts other than apologies, and even *sorry* is not an unambiguous indicator of apologising as it is also used in commiserations and condolences (e.g. I'm sorry to hear that ...). It is also clear that less explicitly marked and more indirect realizations cannot be retrieved by employing this procedure. This may not be critical for apologies, or thanking, greeting and farewells, yet many other speech acts are rarely or never realized by employing a performative verb; this holds in particular for conflictive and intrinsically face-threatening acts, among them requests, threats and insults. To remedy this situation and solve these problems, Jucker et al. (2012) recommend to search corpora for speech act verbs (e.g. *invite*, *suggest*, *warn*) as well as speech act nouns (e.g. *invitation*, suggestion, warning) in both their performative and their discursive uses, i. e. not only for realizing the respective speech acts, but also for talking about speech acts (e.g. reporting, commenting, challenging; cf. Schneider 2017). However, as long as hardly any pragmatically annotated corpora exist (cf. Archer and Culpeper, this volume), a certain amount of manual sifting will be required in many corpus-based studies in pragmatics research.

In general, the suitability of corpus data for comparative work is limited as corpus data are, as a rule, not immediately comparable, especially not across corpora. The ICE corpora are a notable exception. Currently thirteen ICE corpora are available, ranging from Canada and East Africa to Sri Lanka and the USA, and many more are planned or under construction. These corpora enable direct comparison due to their parallel design and composition. Each of these corpora consists of approximately 60 per cent of spoken language and 40 per cent of written language, covering dialogue and monologue, private and public, scripted and unscripted, including face-to-face conversations, telephone calls and speeches, some of them broadcast, as well as printed, typed and handwritten material, including journalistic genres and prose fiction <http://ice-corpora.net/ice/design.htm>. The ICE corpora are, however, not very large, each corpus containing approximately one million words only, which by today's standards is rather small, considering that the Brown Corpus (1961), regarded as the first machine-readable corpus, also includes one million words (of written language only), and corpora today often comprise several hundred million words or more. Of some of the existing ICE corpora only the written part is available to date, i. e. for Nigeria, Sri Lanka, USA. The Irish corpus, ICE-Ireland, is exceptional in two ways. First, it is divided into two parts, one for the Irish Republic and one for Northern Ireland, rendering each part only half the size of the other corpora and thus even smaller. Secondly, there is also SPICE-Ireland, which is a pragmatically annotated version of the spoken part of ICE-Ireland and one of the very few pragmatically annotated corpora accessible today (cf. Archer and Culpeper, this volume). SPICE-Ireland is annotated for Searle's illocutionary types (Directives, Expressives, etc.) and for discourse markers and related phenomena, and is thus particularly suitable for work on these units of analysis. Unfortunately, none of the other ICE corpora is annotated in this way. Searching ICE-Ireland for individual illocutions (i. e. speech acts such as requests, complaints or advice) requires, however, manual sifting, though this is facilitated by the annotation of illocutionary types. A further obstacle to comparative work more generally is the lack of (sufficient) information about situations and about participants in almost all corpora. This problem is especially acute for investigations aimed at examining the impact of macro-social factors such as region, age or gender, e. g. in variational pragmatics.

3.2. Recording naturally occurring spoken interaction

While collecting written language is relatively simple and straightforward, collecting spoken language is much more demanding, and this holds in particular for recording naturally occurring spoken interaction such as everyday conversation. In this case, a high investment of time is required and a number of practical, technical, legal and ethical problems have to be solved (cf. section 4 below), including the acquisition of recording devices and transcription work. For researchers, audio- or video-recording naturally occurring conversation in the truest sense of the word is virtually impossible. Since consent of all participants is required prior to recording, the observer's paradox applies:

[...] the aim of linguistic research in the community must be to find out how people talk when they are not being systematically observed; yet we can only obtain this data by systematic observation. (Labov 1972: 209)

In other words, talk cannot be recorded without participants being aware of the fact and, thus, behaving in less natural ways accordingly. In some studies, it is, however, reported that participants tend to forget about being recorded and behave increasingly naturally the longer the recording takes and the speech event lasts, feeling particularly at ease in familiar situations and among friends. Tannen's study of conversation at a Thanksgiving dinner among six friends, which was audio-recorded for two-and-a-half hours, is a case in point (Tannen 1984, 2005). Another example is Rüegg's (2014) quasi-replication of Labov's (1966) famous department store study. Rüegg, working on socioeconomic variation in American English responses to thanks, audio-recorded talk in several Los Angeles restaurants belonging to three categories reflecting social class differences and labelled as "up", "middle" and "low". In each case, Rüegg had dinner with a group of friends and participated in the dinner conversations as well as in the interactions with waiters and waitresses. All people involved were informed about the recordings beforehand, including the restaurant owners, but at least the waiters and waitresses seemed to forget it in the situation as they were busy doing their normal job. In Rüegg's study, the careful choice of locations for the recording and the same activities in all the locations, i. e. having dinner, were the *tertium comparationis* permitting immediate comparison and, thus, the analysis of socioeconomic variation in speech act realization.

Félix-Brasdefer (2015) employed a similar strategy. For his contrastive study of service encounters in Mexico and the United States, he selected four types of commercial and non-commercial settings as his third of comparison (small shops, supermarket delicatessens, open-air markets and visitor information centre). His book-length study is based on 147 hours of naturally occurring face-to-face service talk audio-recorded in the selected settings and analysed quantitatively and qualitatively for a range of phenomena including speech act realization, bargaining sequences, turn-taking, and prosodic features as well as cross-cultural and intra-cultural variation – in short, genre conventions on the micro- and macro-level and their invariant and variant features. Shop owners and authorities gave permission to make the recordings. Customers were informed in a written note displayed on the counter that the recordings were being made and had the option to refuse being recorded (cf. also Placencia 2008). The researcher did not participate in the recorded discourse.

Selecting a particular type of spoken discourse and/or a particular type of setting, institutional or otherwise, is also a strategy frequently employed by researchers in conversation analysis and interactional linguistics. For instance, Sacks based early work on a collection of telephone calls which were made to the helpline operated by The Los Angeles Suicide Prevention Center (cf. Schegloff 1992). By focusing on a particular discourse type or context and collecting similar cases, it is possible for researchers working in that ethnomethodological tradition to identify recurrent patterns of speaking, pausing, interrupting, etc. and draw conclusions about participant practices characteristic of the given discourse type or context and more specifically about "systematic", i. e. collective, solutions to interactional problems. In this fashion, researchers can make "seen" what is generally "unseen" and just taken for granted (cf. Garfinkel 1967). This approach underlines again the fundamental importance of comparative work and the centrality of comparability. Generalizations are not easily arrived at by comparing not readily comparable material, as is sometimes the case in investigations which are based on pre-existing machine-readable corpora, or by examining only one individual instance of a discourse type, e.g. a single everyday casual conversation, where it is not clear which properties are recurring or invariable and which are accidental or idiosyncratic. This approach focused on a particular context furthermore demonstrates the overall appropriateness of what is essentially a top-down strategy even in CA, which is primarily concerned with local phenomena. Finally, this approach emphasizes the role of context and the context-sensitivity of pragmatic phenomena, including turn-taking and pre-sequences, but also e.g. speech act realization. For example, the aforementioned study by Harrison and Allton (2013) shows that there are crucial differences between apologies in email messages to discussion lists and in face-to-face conversation.

In general, it seems much easier to gain access and the permission to record naturally occurring spoken interaction if the researcher is a participant-observer, as was the case in Tannen's and Rüegg's studies. Being a participant also provides the researcher with the opportunity to steer the conversation in a particular direction, which may be crucial for the respective aim and research question. At the same time, participant observation reduces the degree of naturalness or authenticity of the talk. Researchers as external observers, on the other hand, may not have access to relevant information and misjudge the situation and the relationship between the interactants, especially in everyday conversation, but not to the same degree perhaps in e.g. service encounters or institutional discourse. If the observed interactants are strangers, i.e. not known to the researcher, and if what they talk about presupposes knowledge of their shared history and prior encounters, then researchers may not be able to fully understand the recorded discourse. This is a danger when adopting a less obtrusive etic (i. e. an outsider's), rather than an emic (i. e. an insider's) perspective (cf. also Markee 2013). In this case, a more adequate interpretation may only be achieved if researchers have the option to interview the conversationalists after the recording or, ideally, discuss with them the transcripts at a later stage to obtain a fuller picture.

After audio- or video-recording naturally occurring spoken interaction, transcription work is necessary to enable systematic analysis of the recorded material. This work should, however, not be underestimated, because it can be very time-consuming, the more so, the more fine-grained detail is to be transcribed. For instance, transcribing phenomena that researchers in conversation analysis and interactional linguistics are interested in, who would not accept any data type other than audio- or video-recorded naturally occurring spoken interaction, requires a lot of time and experience and presupposes specific training. Transcription work in this case involves e. g. measuring pauses and accurately representing interruptions, overlaps and simultaneous talk. Needless to say, transcribing non-verbal behaviour in video-recordings, in addition to verbal behaviour, is even more demanding and much more time-consuming (for further details about transcribing and systems and conventions of transcription cf. Kreuz and Riordan, this volume).

An alternative method of collecting naturally occurring spoken data is the ethnographic method, i. e. overhearing what other people say and writing it down, traditionally by hand. This method is also known as "taking field notes" and sometimes called "the notebook method" (Jucker 2009: 1616). The advantages of this method include that it avoids the observer's paradox as no consent of the people overheard is required. Moreover, no electronic recording equipment is needed and no transcription work involved. This method has been popular in sociolinguistic research, e. g. in the classical studies by Manes and Wolfson (1981) on American