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*Jan Strassheim,
Hisashi Nasu (Eds.)*

RELEVANCE AND IRRELEVANCE

THEORIES, FACTORS AND CHALLENGES

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DER INFORMATIONSGESELLSCHAFT

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Relevance and Irrelevance

Age of Access? Grundfragen der Informationsgesellschaft



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Volume 9

Relevance and Irrelevance

Theories, Factors and Challenges

Edited by
Jan Strassheim and Hisashi Nasu

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Preface

“Relevance” has been proposed as a key concept within disciplines ranging from philosophy, sociology, linguistics and semiotics to rhetoric, from library and information science, psychology and education to cognitive science. Models and theories of relevance have appeared repeatedly at least since the 1920s. Since many of the approaches are unrelated to each other, a discussion between them seems to be overdue. This volume is an attempt to contribute to a greater exchange between the different viewpoints.

A convergence of independent theoretical outlooks on the notion of “relevance” is surprising in itself. What it suggests is that relevance is a fundamental problem shared across fields of research. While this convergence on relevance has received growing attention in recent years, there is still some way to go before an interdisciplinary field of “relevance studies” might be recognized. Also, despite the broad and enduring interest in relevance, an interdisciplinary book-length treatment of the topic has not yet been undertaken. The following collection of original essays is meant to fill this gap and to invite further research on relevance which crosses disciplinary borders.

Accessibility of information, the theme of the book series *Age of Access*, includes the capacity to make use of information for one’s own ends. The concept of relevance is connected with that of utility but reaches beyond – and below – it. Relevance influences our access to information not only in the sense of motivating and guiding it, but also in the way we construe and interpret the information we access. In contrast to most approaches, this book will focus not only on relevance, but also on *irrelevance*, which is of equal importance to life in an “information society” and to our chances of making well-informed decisions and understanding others, but which has so far been neglected on a conceptual level.

The researchers who contributed to the present volume represent seven disciplines and nine countries across North and South America, Asia and Europe. They testify to the reach and variety of work on relevance and irrelevance and to the promise of further productive discussion. The contributions are arranged in three sections:

- (1) “Theories”: The chapters in the first section shine a spotlight on the idea of relevance/irrelevance. The authors critically discuss and compare concepts and theories of relevance and some of the implications for notions of irrelevance.
- (2) “Factors”: The chapters in this section investigate the background and finer detail needed to understand, interpret and apply concepts of relevance/irrelevance. The authors analyze factors, conditions and manifestations of relevance and irrelevance in concrete settings.

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- (3) “Challenges”: The chapters in the third section elucidate practical, ethical or political aspects related to relevance/irrelevance. The authors set out technical goals and applications as well as social challenges implied by relevance and irrelevance as something we co-produce and impose upon each other.

We would like to briefly introduce the essays in the order of their appearance. Each contribution will be preceded by an abstract of its own.

Jan Strassheim gives a brief overview of concepts of relevance and irrelevance as to their roles and mutual relation with respect to different approaches in sections on Alfred Schutz and Aron Gurwitsch; Paul Grice, Dan Sperber and Deirdre Wilson; library and information science; signs and language; and epistemology and logic.

Section “Theories”

Göran Sonesson examines different ideas of relevance within semiotics and in approaches including that of Schutz, Gurwitsch, Grice and Sperber/Wilson. Discussing the complex dynamics and levels involved, he asks whether there is a general phenomenon behind the word “relevance”. His discussion critically relates our lifeworld and naturalistic approaches to it.

Michael Barber traces a convergence between Sperber’s and Wilson’s analysis of communication and Schutz’s wider theoretical framework. The different “realities” which make up our lifeworld, he argues, are part of the context for communication. Therefore, communication often follows complex practical relevances, but sometimes it follows theoretical or aesthetic relevances instead.

Brian Larson aims to bridge pragmatics and rhetoric, two fields of language use in context usually treated apart, by building critically on Sperber and Wilson. Within a cognitive-science framework, he suggests widening the scope of relevance theory to reflect the important role of goals and emotions and presents sample analyses.

Denisa Butnaru investigates the fundamental role of the body in our everyday actions, our interactions with others and in the production of a social world. Her critical re-evaluation of Schutz’s relevance theory is informed by conceptions of corporeality found in Maurice Merleau-Ponty and in recent approaches in phenomenology and sociology.

Section “Factors”

Francisco Yus investigates how various types of online identity are managed through internet-mediated communication. To this end, he argues, the operative concept of relevance in Sperber’s and Wilson’s theory should be extended beyond propositional contents communicated to include a (dis-)satisfaction based on a range of emotional, motivational and interface-related factors.

David Rapp and *Matthew McCrudden* introduce and analyze empirical research into the process of reading. Relevances related to readers’ tasks in an educational setting are shown to influence comprehension and memory not only as they read, but even before and after. The analysis could generalize to other discourse experiences and has practical implications.

Nozomi Ikeya and *William Sharrock* study how librarians classify books according to their subject matter. The continuous process of adapting and applying the classification scheme, they argue, reflects both the ongoing development of subject areas and what is seen as library users’ interests, but also the librarians’ own practical relevances given limited resources.

Ana Horta and *Matthias Gross* present and analyze their empirical observations of dog owners who fail to clean up their pets’ feces in public spaces despite legal sanctions. The relevance or irrelevance of the event, they argue, is negotiated through embodied routines and face-saving interactions, resulting in forms of “nonknowledge” based on irrelevance.

Section “Challenges”

Ilja Srubar analyzes the pragmatic relevances shaping cultural worlds on various levels of action and communication. While such an apparatus selects only certain possibilities as relevant and therefore as real, he argues, the possibilities excluded as irrelevant do not disappear, but remain part of the social order at its fringes.

Dagobert Soergel and *Catherine Dillon* classify a variety of types and levels of topical relevance in concrete examples of problem-solving and decision-making tasks. Shedding light on the relevances that arise with different stages, courses and contexts of a problem-solving process, they build a basis for information systems designed to assist in such processes.

Hermílio Santos examines the construction of identity through internet-mediated communication from a biographical, process-oriented viewpoint. Pointing to

formal parallels between face-to-face and online interaction, he critically analyzes mechanisms of exclusion inherent in a dialectics between group and self which frustrate hopes for the internet to become a space of emancipation.

Jan Strassheim assesses the relationship between relevance and irrelevance with reference to the law as a theoretical model and as a practice. The maintenance of social order and its change through criticism, he suggests, equally depend on (ir-)relevance as a dynamic of selectivity which organizes our experience and action.

We would like to thank all the authors who have contributed to this inspiring discussion on relevance and irrelevance. We are also grateful to the editors of the series *Age of Access* and to the editorial team at *De Gruyter*.

Jan Strassheim
Hisashi Nasu

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Jan Strassheim

Relevance and Irrelevance

Abstract: Relevance and irrelevance, it is argued, are constitutive to our access to “information objects” on three interconnected levels: (1) access to the information object itself, (2) the information gained from it, (3) the use of that information. Relevance selectively shapes our experience and action, but the “irrelevance” of what is left out is not simply the opposite or absence of relevance. The complex relation between relevance and irrelevance expresses itself in different shades of knowledge and ignorance, and in a fuzzy border between information we do not *want* to access and information we *cannot* access. This implies both chances and risks for communication as a process of producing and exchanging information objects. In a second step, previous research on relevance and irrelevance is sketched with respect to different traditions and approaches: (1) Alfred Schutz and Aron Gurwitsch; (2) Paul Grice, Dan Sperber and Deirdre Wilson; (3) library and information science; (4) signs and language; and (5) epistemology and logic. Finally, the role of the word “relevance”, which is not found in all languages, is briefly considered after distinguishing the explicit reflection of relevance from the constitutive role of relevance, which often remains implicit.

1 Why “relevance”? Why “irrelevance”?

Why should scholars and scientists talk about “relevance”? One might start with the following list of reasons:

- (1) Investigators of perception or cognition will naturally come to ask why our attention or interest focuses on certain objects or thoughts while ignoring many others.

Note: I would like to thank Hisashi Nasu for his insightful mentorship on all matters “relevant”. Also, I am grateful to the members of the “*Nasu sem*” and the Waseda Schutz Archive for their warm acceptance and advice. I am much obliged to Benjamin Stuck for his comments on an earlier version of this essay and for many invaluable phenomenological discussions. Last but not least, I would like to thank André Schüller-Zwierlein for suggesting a volume on relevance as part of the series *Age of Access* and for his support and advice in the project.

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- (2) Research concerned with the ways we make sense of ourselves and the world around us will come to ask how background and context, knowledge and bias favor a certain understanding rather than another.
- (3) What guides us in our actions and our interactions with others? How do we reach decisions? Such questions arise for any study of action as well as for sciences which aim at practical or technological solutions.

Relevance works at multiple levels. This can be exemplified with reference to the contemporary problem of *access* (cf. Rifkin 2000). If ours is an age in which access to information has become a crucial resource, problems of accessibility arise: Who has access to what information? Should all information be made accessible to everyone and everywhere? The problem of relevance and irrelevance is most obviously connected with questions about what we *want* or *need* to access. Digital technology in particular grants us access to information of every kind and from any source and potentially connects us with every person in over half of the world's population. But how to select from this near infinite pool? What should we look for and what should we ignore? As a first approximation, one might say that what we need or want is *useful* information. "Useful" information is related to our needs or interests in such a way that it helps us make plans, perform tasks and take decisions, develop our knowledge and skills, or simply enjoy ourselves. In order to gain useful information, we usually need to access "information objects" (Ingwersen/Järvelin 2005) – for instance, texts, gestures, spoken words, pictures or videos – which convey (express, embody, activate, etc.) this information to us. In other words, three levels are involved: (1) the information object accessed, (2) the information it conveys, (3) and the usefulness of that information. Relevance is a constitutive element on each level:

- (1) Before we access an information object, it must have entered our field of perception and, within that field, it must have caught our attention among other objects present at the same time. Even more fundamentally, certain aspects must have stood out within our experience which made up this object as an object for us and marked it off from its surroundings. As phenomenologists have argued (Schutz 2011 [1951]; Gurwitsch 1964 [1957]; Waldenfels 1996; see also sec. 2.1 below), all of these processes are based on relevance. Hence, the identity, properties and boundaries of any information object depend on relevance. This can become an eminently practical problem, e.g. when professionals aim to preserve information objects over years or even centuries and, in order to do so, have to define which aspects are part of the object in question and which are not (Schüller-Zwierlein 2014).

- (2) But even once the information object has been identified, the same object may convey different information, depending on how it is interpreted by different individuals, in different settings, or at different points in time. It has become clear in recent decades that this contextuality affects all layers of “meaning”, even seemingly unequivocal ones. What information we gain from any object is a matter of relevance. This can be shown for information objects such as pictures (Sonesson 1988), which “say more than a thousand words”, but it is true of texts too. Depending on the situation, the same sentence will express almost any number of meanings. This is because linguistic communication relies on relevance to fill in elements of meaning which are not given by the rules of a language alone; moreover, relevance may even override or suspend linguistic rules, as it does in ironical or figurative uses (Bühler 2011 [1934]; Grice 1989; Wilson/Sperber 2012).
- (3) Finally, whether the information gained is “useful” depends on how a user (a person, a group, or perhaps a machine) wants or needs to use the information. In the numerous models of relevance proposed by library and information scientists, concepts such as “usefulness”, “utility” or “need” have often taken center stage. Research on relevance (especially in the field of information retrieval) is often connected to notions of usefulness fleshed out in various ways, e.g. with reference to inner motivational states of a user, to user types, to types of complex tasks such as “writing an undergraduate research paper”, or to the string of words typed into a search engine which indicates the topic the user is interested in (Mizzaro 1997; Saracevic 2007; Schamber et al. 1990; Huang/Soergel 2013; see also sec. 2.3 below).

These three levels are interconnected. The elements selected at each level – (1) an information object, (2) the information gained from it, and (3) the usefulness of that information – build upon each other, each presupposing the previous one. Accordingly, their selection may proceed in the same order. But the kinds of relevance involved at each level may also build on each other in different orders. Which object I singled out in a certain way (1) was bound up from the start with the way I usually understand such objects (2). In turn, both my attention to this object and my interpretation of it was influenced by (3) the goal which prompted my search in the first place. Where the object is a text, for instance, readers with different goals may not gather the same information from it (McCrudden et al. 2011). But even before that, the goal of the search may itself have been prompted by an interpretational need (perhaps I failed to understand a word in a Latin quotation and am now trying to find its basic form through a search engine) or by a thematic interest (a strange insect in my kitchen has caught my attention, and I am now searching the internet for images of similar insects).

The distinction between these three levels is similar to that between three types of relevance – “thematic”, “interpretational”, and “motivational” relevance – which interrelate in ways that prevent us from taking one of them as primary (Schutz 1966 [1957]).

Irrelevance has received less attention than relevance, but this does not make it any less important. Relevance has to do with a “selectivity” (Schutz 2011 [1951]) which helps shape our experience and action. That is, relevance has to do with what makes us “select” certain themes, interpretations and courses of action rather than others. As the phrase “rather than others” implies, certain other possibilities are *not* selected. Hence, relevance is bound up from the outset with irrelevance.¹

Relevance and irrelevance are not only academic topics. In our daily lives, we often reflect on what is relevant in a given situation. We may ask questions like these: Which aspect of a seemingly innocuous remark offended this person so much? How can I tell whether an insect is a honeybee or a bumblebee? Is professional success more important in life than leisure time, or helping others? Faced with such questions, we think or talk about different possibilities and then discard some of them as “irrelevant” or “not relevant enough”.

Even more often, however, relevance guides us *without* such reflection. “Looking to the relevances” tends to be the exception, while simply “living in the relevances”² is the rule (Schutz/Luckmann 1973/89, vol. 1, 182). For example, relevance structures the way we talk to others and the way we interpret what others say, but “[c]ommunicators and audience need no more know the principle of relevance to communicate than they need to know the principles of genetics to reproduce.” (Sperber/Wilson 1986/95, 162). Search engines aim at what is relevant to humans and rely on it even where both their programmers and their users lack an explicit concept of relevance: “[...] while the hand of relevance is invisible, it is governing” (Saracevic 2007, 1916). Whatever is *not* selected as relevant in such situations is “irrelevant” not in the sense that we explicitly discard it, but in the sense that it never entered our consideration in the first place.

As a result, if relevance contributes to how we acquire, store and articulate *knowledge* (see also sec. 2.5 below), irrelevance is related to various kinds of *ignorance* (Gross/McGoey 2015): There are things we deliberately ignore; but there are also things we ignore without knowing it, because they are irrelevant in the sense

¹ For the sake of simplicity, I treat relevance and irrelevance as an “either/or” alternative here. In reality, the problem is more complicated as it has been indicated that the difference is a matter of degree (e.g. Schutz 1964 [1946]; Sperber/Wilson 1986/95; Borlund 2003).

² I follow the usage of Schutz in using “relevance” in the singular to refer to a general phenomenon or structure of selectivity and “relevances” in the plural to refer to those aspects or patterns selected as relevant in a given case.

of never entering our mind. In the psychology of visual perception, this latter type of ignorance can take the striking form of “irrelevance blindness” (Eitam et al. 2013). I said earlier that relevance is most obviously connected with questions about which information, within the infinite pool of information accessible to us, we *want* or *need* to access. But the kind of irrelevance which is bound up with ignorance can make potentially accessible – and even potentially relevant – information de facto inaccessible to us. Within the world of information which is “not relevant” to me here and now, there is thus a fuzzy border between information I do not *want* to access and information I *cannot* access.³

This relation between relevance and irrelevance has obvious risks: we may neglect aspects which are important to us or to others without ever noticing that we neglect them. Are we then forever trapped in our own relevances? Not necessarily, because (1) what is relevant to us can change over time and (2) different things are relevant to different people (Schutz 2011 [1951]; Sperber/Wilson 1986/95; Saracevic 2007). Thanks to the dynamic and individual variability of relevance, we can learn and unlearn what is relevant and what is not, and, importantly, we can learn this from the experience of others. This adds a fundamentally *social* dimension to relevance and irrelevance. Communication is a chief medium for the development of relevances. This includes such seemingly lonely activities as reading a book or browsing a website; information objects such as books or websites are usually produced by *people* who had their own relevances and irrelevances at the time (Hjørland 2010).

This role of communication, in turn, highlights the role of relevance in communication itself. Communication involves selections on all three levels mentioned before. That is, the act of making useful information accessible to others requires for its success that these others will (1) notice the informational object and perceive it in a certain way, (2) interpret the object in a certain way, and (3) find the information gained useful in a certain way. This process becomes easier to the extent that both parties share the same relevances. But the point of communication as a medium for the development of relevances is that at least some of the relevances initially *differ* between the communicators. Such difference is a challenge where what is currently relevant to the audience might keep them from accessing the information offered. Communication, therefore, tends to involve an interplay of shared and differing relevances (see secs. 2.2 and 2.4 below).

³ This complex relation is one reason why it is preferable to use “irrelevance” instead of other terms sometimes opposed to “relevance”, such as “redundancy” or “contingency”, which not only obscure the mutual dependence of relevance and irrelevance, but which also tend to narrow relevance down to more specific features such as novelty or necessity.

Yet communication has risks of its own. One is of course the risk of misunderstanding. But even where we understand each other, there is no guarantee that we will stop neglecting what is important to us, because the others may be mistaken too. Copying their relevances will not help us in this case. Still, it is something we often do, as the spread of rumors and “relevance bubbles” in social networks remind us. Surprisingly, we even tend to rely on inaccurate information from others when we *know* the information to be false (Rapp/Braasch 2014). As a result, communication may reinforce shared relevances which make us neglect what is important. “Irrelevance blindness” can occur at the social scale (Zerubavel 2015), with possibly devastating consequences. For example, entire societies may fail to notice the environmental damage they do (Ollinaho 2016).

Against this background, it is only natural that questions arise about what is *really* relevant as opposed to what only *seems* relevant. Are there timeless relevances as opposed to what is relevant at a given point in life or history? Are there universal relevances as opposed to what is relevant to myself, my class, or my culture? Are certain relevances more objective or valid than others, making it possible to tell true knowledge from ignorance? Some expect positive answers to such questions from science or philosophy (see sec. 2.5 below). Others challenge academics to make their research more relevant to society (see Flinders 2013; Savransky 2016), which raises the question what it means to be relevant “to society” and who decides what is relevant and what is not.

2 Research on relevance: traditions and approaches

I would like to outline briefly (and ordered by fields rather than chronologically) some traditions or more individual approaches in research on relevance. I only include approaches here which use the word “relevance” (on this word, see also sec. 4 below). The hope is that once the problems of relevance become clearer, other approaches can be identified which treat the same problems without necessarily using the same terms.

2.1 Schutz and Gurwitsch

The first tradition took off at the interface between philosophy and sociology. In the 1920s, Alfred Schutz (or Schütz) began his project of providing a philosophical foundation for “interpretive sociology” (as introduced by Max Weber), using the

tools of phenomenology. From early on, Schutz saw relevance as a key concept for his project and even declared relevance “the central concept of sociology and of the cultural sciences [*Geisteswissenschaften*]” (Schutz 1996 [1929], 3). By “relevance”, Schutz refers to a selectivity which fundamentally shapes our experience and action. As we encounter the world through our relevances, relevance also shapes the objects of our experience and action. In this sense, relevance is not simply an attribute we bestow upon ready-made objects, but it helps constitute those objects and their meaning for us in the first place.

According to Schutz, Relevance governs dynamic processes in our experience and action. It underlies the typical patterns which make up our knowledge and our personality, but it also motivates us to question and change these same typical patterns, especially when we encounter problematic situations. Due to its complex dynamic, relevance allows us to interact with others through shared patterns of experience and action while at the same time it allows each person to take a uniquely individual stance within the shared lifeworld (Srubar 1988).

While the problem of relevance pervades all of Schutz’s work, his most dedicated attempts at a theory of relevance can be found in an extended manuscript written between 1947 and 1951 (Schutz 2011) and an article written in 1957 (Schutz 1966), in which he outlines his three types of relevance (“thematic” or “topical”; “interpretational”; “motivational”) and their interplay. Schutz’s overall theory remained unfinished. A second book summarizing the progress made since his first monograph published in 1932 could not be finished before Schutz passed away in 1959. Thomas Luckmann, a former student of Schutz’s, took it upon himself to finish the book (Schutz/Luckmann 1973/89). Schutz’s concept of relevance remains a core area of his approach to be expanded and developed by further research (Nasu 2008).

Schutz’s ideas influenced a variety of approaches in sociology focusing on the social construction, framing and negotiation of what is relevant or irrelevant (Goffman 1974; Garfinkel 1967; Berger/Luckmann 1966). In philosophy, Schutz’s work highlighted the precarious status of what is relevant to an individual person with respect to what is treated as relevant in a social group (Natanson 1986; Barber 1988) and to principles of relevance argued to be more universally valid than that (Cox 1978; Waldenfels 1996). Other researchers have traced tensions, within relevance itself, between more closed routines and patterns of action and experience on the one hand and more open processes of imagination and spontaneity on the other (Butnaru 2009; Knoblauch 2014; Nasu 2014; Strassheim 2016). An online bibliography of literature referring to Schutz is kept at Waseda University (The Waseda Schutz Archive 2018).

Aron Gurwitsch developed his own theory of relevance at the same time as Schutz and against the background of a decades-long exchange between the two

friends about the concept of relevance (Gurwitsch 1964 [1957]; Schutz/Gurwitsch 2011). Gurwitsch makes a point of remaining within the paradigm of Husserl's transcendental phenomenology, which Schutz had left in favor of a phenomenology of the social world. Therefore, "relevance" in Gurwitsch refers to a formal structure of thematic coherence which is valid for every possible consciousness and, in this sense, represents an ontological principle for the unity of topics and objects. "Irrelevant" phenomena are also present in consciousness, but they stand at the "margin" of its current theme. While Gurwitsch's theory of relevance and irrelevance continues to provide a reference point for critiques of Schutz, the two theories may ultimately be compatible with each other (Embree 2015).

2.2 Grice and Sperber/Wilson

Another, more recent tradition which explicitly reflects on problems of "relevance" is connected with the names of cognitive scientists and linguists Dan Sperber and Deirdre Wilson and mainly related to the field of pragmatics.⁴

Sperber and Wilson base their analysis of communication on a critical reading of Paul Grice's philosophy of language. According to Grice, we often imply meaning beyond what we overtly say. The meaning we imply is sometimes the whole point of our utterance, but unlike the explicit meaning of what we say, it strongly depends on the context. To explain why we nevertheless succeed in communicating implicit meanings, Grice suggested that as rational communicators, we follow a "Cooperative Principle". Grice spelled out this principle in several maxims, one of which was "Be relevant" (Grice 1989, 27).

In their critique of Grice (Sperber/Wilson 1981), Wilson and Sperber argue for a greater role of relevance: It is relevance, not necessarily cooperation, which governs our communicative behavior. Also, the context-dependence governed by relevance affects not only implicit meanings, but the core meaning of what we explicitly say. Depending on what is relevant in the context, the meaning of every word may be wider or narrower than what the dictionary would have us expect, and it may even be a different, "ad hoc" meaning altogether (Wilson/Sperber 2012). Communication therefore cannot be explained by referring only to a shared system of rules, a "code", as they understand it. Where shared rules exist (as in the grammar and semantics of a language), we rely on relevance to supple-

⁴ Pragmatics, the study of the use of language in context, is not to be confused with the philosophical tradition of pragmatism.

ment and often override these rules in order to reconstruct the core meaning of the words used on a given occasion.

The concept of “relevance” at the center of Sperber’s and Wilson’s theory has two sides: For an individual person at a given time, those phenomena or thoughts which balance (a) a maximum of “positive cognitive effects” to be gained from these phenomena or thoughts with (b) a minimum of “cognitive effort” needed to process them are the most relevant to this person at this time. Their analysis of communication rests on the general claim that human cognition is geared towards maximizing “relevance” in this sense. A communicator will aim, in her own interest, to shape their communicative behavior in such a way that its intended interpretation will be the most relevant to their audience. For if a communicator fails to do so, their behavior will be interpreted differently or even go unnoticed. Since this condition is common knowledge, communicative behavior *as such* raises the expectation that it will indeed be relevant to an audience. An important qualification concerns the communicator’s perceived “abilities and preferences” (Wilson/Sperber 2012, 7), which are related to different interpretation strategies on the audience’s part (Sperber 1994).

Wilson and Sperber have become eponymous with “relevance theory” since their widely read 1986 book and its revised 1995 second edition (Sperber/Wilson 1986/95). They followed up with influential articles applying their theory to problems ranging from semantics to developmental psychology or the philosophy of mind. Some of these articles were collected in a second book (Wilson/Sperber 2012). A recent overview is given in Wilson 2017. Their proposal of a unified theory for analyzing a number of seemingly unrelated phenomena sparked a critical discussion not only about the role of relevance in explaining communication, but also about the scope and foundations of the concept of relevance (e.g. Levinson 1989; Gorayska/Lindsay 1993; Recanati 2003; Burton-Roberts 2007). Research inspired by their approach has crossed discipline borders, including the divide between natural sciences and humanities. An extensive online bibliography is kept at the University of Alicante (Yus 2018).

2.3 Library and information science

A third tradition of explicit reflection on problems of relevance relates to the search and retrieval of information within dedicated information systems. This tradition can be traced back to around 1930, when the process of searching for scientific articles on a given topic was investigated with the help of mathematical models. What had begun with subject indices in libraries expanded to electronic databases used by experts and later to online applications such as the search

engines familiar today. Through all these variations, the focus was on a situation in which a system (be it a library or an algorithm) is supposed to help its user find relevant information objects rather than irrelevant ones. This makes relevance a chief measure for designing and evaluating the systems in question. But the main point of the discussion remained: What does “relevant” mean? How can the notion of relevance be explained and operationalized? How do we judge what is relevant and what is not, and from whose point of view?

After information science was established as a discipline, relevance became “its fundamental and central concept” (Schamber et al. 1990, 755), a position which has often been reaffirmed (e.g. Froehlich 1994, 124; Huang/Soergel 2013, 31; Saracevic 2016, 143). Numerous factors contributing to relevance have been described; different types, dimensions and levels of relevance have been defined; overarching models and frameworks of relevance have been built ever since. At certain intervals, the various ideas were collated and analyzed in review articles which often set new trends for further research (Saracevic 1975; Schamber et al. 1990; Mizzaro 1997; Saracevic 2007).

The type of relevance to be described first, later called “topical relevance”, refers to the relation between an information object (such as a document) and a given topic, or subject area. For many, this has remained a core type of relevance in the information sciences, which also connects them with traditional librarianship. However, while the discussion until the 1970s focused on topical relevance, later relevance research went increasingly beyond it to discover other kinds and aspects of relevance. A recurring theme in the discussion has been the interplay of “system” relevance and “user” relevance, which developed more and more into a tension. An algorithm, based on what the system treats as relevant to the user’s query, can supply data which the user finds *irrelevant*. Mismatches of this kind (which we continue to experience with search engines and social networking services today) had sparked discussions about relevance, or rather irrelevance, in the early 1950s (Saracevic 2007). Against this background, later research has tended to follow two different strategies:

- (a) One strategy is to focus on the “system” side (the so-called “Cranfield paradigm” going back to 1957), using standardized experiments and formalized relevance assessments by experts, in order to eliminate “subjective” factors and to refine the technical and conceptual state of the art.
- (b) Another strategy, which gained additional momentum around 1990, is to focus on “real users”, stressing the dynamic and contextual character of relevance as primary and exploring the role of relevance in human “information behavior” (Schamber et al. 1990) beyond topical relevance, e.g. goal-related, cognitive, or affective relevance.

In addition to these two strategies, various efforts have been made to bridge the gap between the two sides. Others have argued that the tension may have been overstated in the first place, as systems and users co-evolve in a knowledge ecology (Hjørland 2010): The “user” isolated from his or her social context (which includes state-of-the-art information systems and the specialized knowledge implied in them) is as much an abstraction as the “system” isolated from its social context (which includes programmers, content managers, companies and of course the users themselves). According to this view, it is an oversimplification to call one side “objective” and the other “subjective”. On the system side, systems are made, updated and evaluated by people. On the users’ side, some relevances may be more robust than others, for example those of experts on the topic in question (Hjørland 2010), or those related to the user’s overall task as opposed to their momentary satisfaction (Soergel 1976).

Relevance research in library and information science offers perhaps the greatest wealth of characterizations of relevance and of concrete factors involved in it. The sheer range of different aspects of relevance has made it difficult, but need not make it impossible, to find a consensus about what relevance is (Borlund 2003). This may also be a reason why information science has not yet produced a homegrown *theory* of relevance over and above the various models (Saracevic 2016). Instead, information scientists have referred in detail to relevance theories from other disciplines, including those of Schutz (e.g. Saracevic 1975; Wilson 2003) and Sperber/Wilson (e.g. Harter 1992).

2.4 Approaches to signs and language

In several treatments of language and non-linguistic signs (other than those of Grice and Sperber/Wilson), “relevance” has been employed as a notion crucial both to the constitution of signs and to their use in context.

Nikolai Trubetzkoy (Trubetzkoy 1969 [1939]) lays out a constitutive role of relevance in the sound system of a language. When we hear the same word spoken on different occasions, what happens acoustically are quite different sounds every time. It is the sound structure of our language which makes only certain properties of these sounds “relevant” to us and thus enables us to hear them as “the same word”, while other properties of the sounds are abstracted away. Trubetzkoy connects the identity of the sounds relevant in a language to a system of differences. Only those aspects of a complex sound which enable us to distinguish meaningful words from each other are relevant to the sound system of the language. For instance, the length of the vowel *a* is the only difference between the Japanese words *obasan* (“aunt”) and *obāsan* (“grandmother”). People whose ear is trained

to the relevances of another system of meaningful sounds will perceive the same event differently. To an unwitting German, *obasan* and *obāsan*, if uttered by a speaker of Japanese, sound like a repetition the same word, as pure vowel duration is not systematically relevant in the German language. Trubetzkoy's analysis thus connects the purely material level of a spoken language with the level of meaningful words. This is a linguistic example of how relevance links the sensual perception of an information object with its interpretation and use.

The role of relevance as described by Trubetzkoy was later generalized by Luis Prieto (Prieto 1975). All levels of sign use, from the material level to concepts and even knowledge, are structured by relevance (*pertinence* in French). This is true not only for, e. g., the native users of a language, but also for semioticians and linguists who study that language. In each case, relevance is not simply found in nature, but it is relative to a "practice" established among a group at a given time. This observation would seem to hold not only for the structuralist semiotics which Trubetzkoy and Prieto represent, but also for approaches to language more strongly inspired by the natural sciences. For instance, Noam Chomsky stresses that his theory of "Universal Grammar" abstracts away from numerous conditions and features of the linguistic "performance" which are "grammatically irrelevant" (Chomsky 1965, 3).

Karl Bühler, in his theory of signs (Bühler 2011 [1934]), used the concept of relevance inspired by Trubetzkoy to stress the context dependence of meaning and use. His "principle of abstractive relevance" states that our use of words or other signs is highly selective: any sign has an indefinite wealth of properties, but only some of these are relevant when we use it as a sign in a concrete context. This "selectivity" is dynamic. What we mean by words on different occasions and in different combinations is both less and more than what we would expect if meaning were ideally constant. However, the identity of a sign over time is equally based on the "principle of abstractive relevance", as Trubetzkoy's phonology had shown. In sum then, not only deviations from the rules, but even the rules themselves are structured by relevance.

The constitutive and contextual role of relevance has been investigated in various kinds of information objects besides words, for example in pictures (Sonesson 1988) and in artworks and artistic performances (Döhl et al. 2013; Kimura 2014).

2.5 Approaches in epistemology and logic

A final strand of research to be mentioned here employs concepts of relevance to justify or to criticize claims to valid knowledge.

Relevance is related to knowledge (Schutz 1966 [1957]; Prieto 1975; Hjørland 2010) on all three levels mentioned in sec. 1 above: (1) We pay attention only to relevant objects and events and perceive them in ways which are relevant to us. (2) We interpret ourselves and the world in ways we typically find relevant, and relevance shapes the very concepts through which we attain, express and share knowledge. Even “natural kinds” could therefore more aptly be called “relevant kinds” (Goodman 1978, 10). (3) Finally, relevance determines which bits of knowledge we find useful and how we apply our knowledge in practice.

This pervasive role in knowledge makes relevance crucial for attempts to justify our knowledge. For instance, A. J. Ayer and Rudolf Carnap stress the criterion of empirical testability. Empty speculation, they argue, should be excluded by allowing as candidates for valid knowledge only those hypotheses or concepts to which at least some empirical observations are “relevant” (Dascal 1971). Isaiah Berlin objected that the criterion fails to meet the ideals of logical empiricism it was supposed to hold up “because the word [relevance] is used to convey an essentially vague idea” (Berlin 1938, 233). Nevertheless, Carnap went on to develop a theory of relevance as the formal relation between a piece of evidence and a hypothesis which is made more or less probable by that evidence (Carnap 1950). More refined efforts to analyze epistemic or causal “relevance” on a logical basis have been made ever since (see e.g. Floridi 2008; Yablo forthcoming).

Logic is traditionally seen as a medium for testing the validity of claims and for deriving other valid claims by way of implication. But classical deductive logic validates inferences which can offend our intuition. Sometimes, conclusions may seem unrelated to their premises; they do not seem to “follow” from them.⁵ “Relevance logic” has become the title for an ongoing tradition of non-classical systems of logic (the best-known being Anderson/Belnap 1975) which aim to exclude such inferences by building concepts of relevance into the logical apparatus itself. In this sense, relevance logic may be seen as an attempt to bring pure logic closer to what we know (Read 1988; Mares 2004).

Nevertheless, the pervasive role of relevance in knowledge makes it clear that the knowledge we rely upon and the knowledge we acquire is highly *selective*. In other words, there will always be many things that we do *not* know. More problematically still, among the things we do not know there might be some which would render our present state of knowledge dubious or which would even prove us wrong. The problem of relevance therefore implies that of skepticism (Schutz 2011 [1951]).

⁵ For instance, “If bananas are sad spirits, then Tokyo is in Japan” or “Two plus two is five; therefore, Tokyo is in Germany” are both valid inferences in classical logic. The first is an example of the principle known as *ex quodlibet verum*, the second is an example of *ex falso quodlibet*.

Schutz uses the idea of relevance to argue (in the tradition of pragmatist philosophers) that it is “reasonable” for us to stop questioning further when what we know satisfies our theoretical or practical purposes. At the same time, he stresses that our knowledge can only be valid “until further notice”, that is, until it is drawn into question by things we did not know before. Any serious attempt to reach a “reasonably” founded opinion therefore requires a constant readiness to go beyond what has been relevant to us so far (Schutz 1964 [1946]).

Since the 1970s, a more radical skepticism has reentered the discussion which claims that we do not *know* anything because we can never exclude all possibilities of error. In the most extreme scenario, we might be “brains in a vat” without a body who live in a perfectly simulated reality – a possibility which nothing in our knowledge rules out. “Relevant alternatives” approaches, the best-known being Fred Dretske’s (Cohen 1991), have been developed to counter this argument. In order for our beliefs to count as “knowledge”, it is argued, we only need to exclude the *relevant* possibilities of error. The “brains in a vat” scenario is too “far-fetched”, it is excluded because it is irrelevant. The concept of “relevance” involved has been spelled out in various ways, e.g. in terms of the situational context of a knowledge claim, of “possible worlds” ordered as to their similarity to each other, or of relevance logic (Holliday 2012; Hawke 2016).

3 A note on the words “relevance” and “irrelevance”

I have tried to sketch only some ideas proposed in different fields and disciplines which are loosely connected by their use of the word “relevance”, hoping that these ideas will come together in a discussion about similar problems.

However, even the *word* “relevance”, let alone the word “irrelevance”, is by no means universal. In English, “relevant” comes into general use only after 1800; its German cousin with the same spelling does so only after 1950 and has retained the sound of a technical, learned word. While other Germanic and Romance languages have adjectives based on the same Latin root, the French adjective *relevant* has conspicuously disappeared and was by and large replaced by modern French *pertinent*. But many other languages simply do not have a word which is coextensive with “relevant”. Japanese, for instance, offers a number of items which split into different aspects what we would call “relevant”. Some examples are *kankei suru* (“related”), *jūyō* (“important”), *yūimi* (“significant”) or *tekisetsu* (“appropriate”). Hence, when a text about “relevance” is translated into Japanese, the translator needs to make a decision based on what the author says about relevance.

As a result, traditions connected by the word “relevance” seem to drift apart in Japanese: texts in information science tend to be about *tekigōsei* (“compatibility”), whereas Sperber’s and Wilson’s becomes a theory of *kanrensei* (“relatedness”). The key term in Schutz’s relevance theory was translated in different ways (depending on how his theory was interpreted) before the loan word *rerivansu* was coined.

A consideration of the nontechnical uses of the word “relevance” or of similar expressions in everyday life should alert us to the possible historical and cultural variety of the related concepts, as well as to the variety of aspects which the word “relevance” may bundle together without further analyzing them.

Nevertheless, this is not necessarily an argument against attempts to build a unified theory or model of relevance. Talking about relevance involves a reflective attitude. But this specific attitude is not required for relevance to do its work in our everyday lives (cf. sec. 1 above). We can attend to certain themes, favor certain interpretations and act on certain motives without thinking about relevance or having a general concept of it. If anything, it is the other way around: The successful use of a language, including the use of a word like “relevance”, presupposes the silent work of relevance, and the even more silent work of irrelevance. And often, what is most relevant need not be made explicit, precisely because it is evident and undisputed; it would be to “state the obvious”. Stating the obvious – and the not so obvious – is a task for relevance researchers.

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Theories

Göran Sonesson

New Reflections on the Problem(s) of Relevance(s). The Return of the Phenomena

Abstract: “Relevance” is an ordinary language word, which has been put to sundry scholarly uses. Nowadays, the term most commonly evokes the work, along the lines of speech act theory, of Paul Grice and, more in particular, of Dan Sperber and Deirdre Wilson. Starting out from these theories, Jean-Louis Dessalles has suggested that relevance may account for the evolutionary origin of language. Among those following the phenomenological tradition, the same term rather calls to mind the work of Alfred Schütz, and perhaps, more rarely, some remarks made by Aron Gurwitsch. For linguists, who still remember something about linguistics before Chomsky, the term suggests the structuralist theories of the Prague school, as applied to phonology. In fact, while Schütz talks about relevance *systems*, the point of the whole endeavour initiated by Sperber/Wilson is to reduce meaning to *contingent* factors of the given situation. While Schütz as well as Sperber/Wilson treat relevance as something *given* in the situation, Dessalles presents it as *new* information. The linguistic definition is often nowadays taken to involve the features *exclusively attended to*, while at least Schütz clearly thinks of relevance as a kind of *thematic adumbration*. The question then becomes: do all these different uses have anything in common, beyond the employment of the same common sense word? To investigate this, we have to go beyond ordinary language to our common lifeworld, asking which of the three conceptions, if any, accounts for the real phenomenon, if this is actually more or less the same thing in all traditions.

Human existence as well manifests itself in the emergence of novel experiences not related to the sum total of my actual and anticipated knowledge of my lifeworld. (Schütz 1970, 135)

At the beginning of this paper, I cannot help being reminded of the practice initiated by the semiotician A.J. Greimas, leader of the Paris school of semiotics, who was the supervisor of my doctorate dissertation, and who stipulated that all analysis should start out from the dictionary definition. Let me commence this paper in a true Greimasean style, citing, not *Le Petit Robert*, as Greimas would have done, but the *Oxford Dictionary* (sampling several editions): relevance, or relevancy, has to do with something which is closely connected with the situation you are in, or with what is currently happening, being discussed, done, etc. Greimas would have proceeded from here, making relevance into a technical term of Paris school semiotics, but, as

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it happens, such a procedure appears already to have been accomplished several times over, more or less independently, with reference to the term of our interest. Therefore, it will not be enough to apply our hermeneutic scrutiny to dictionaries, but we will have to consult several theoretical works, which all pretend, not only to make relevance into a technical term, but also (contrary, I think, to the Paris school exercises) to fill the term with a much more specific meaning. Indeed, if the problem for the Paris school approach, normally starting out from very basic terms of ordinary language, is to reduce the ambiguity of the term found in the dictionary, here the task is rather to fill a very abstract term with some plenitude of meaning.

Nevertheless, since we are not really starting out from the dictionary, but from the several ways in which this (not so) ordinary language term has been amplified within different theoretical approaches, the onus of the present approach may in the end turn out to be to search for a common denominator, if it exists, to all these different construals of the notion. In the following, we will basically be concerned with, on the one hand, the Gricean tradition of relevance, which was radically changed, in some respects, by Sperber/Wilson, and, on the other hand, with the phenomenological tradition stemming from Schütz and Gurwitsch, including its antecedents in Husserl's works.¹ At the same time, we will be involved with three issues: first, whether the notion of relevance justifies the idea of meaning-making being entirely a question of peremptory decision being made at a particular time and place, or whether there is something like a system of relevancies, entrenched on the typical structure of the world taken for granted (Section 1). Second, whether (scarce) empirical facts justify the claim for relevance being the result of the operation of an innate module in the human brain, or whether it may more plausibly be considered a kind of socially distributed cognition (Section 2.1). And third, whether the contribution of relevance consists in presenting something new, or rather in offering the ground-work on which that which is new may emerge, i.e. the presuppositional structure, or perhaps both (Section 2.2).

1 Relevance between contingency and system

The present section will begin with the consideration of some tentative definitions of relevance, due to Paul Grice, on the one hand, and to Dan Sperber and Deirdre Wilson,

¹ When I first made this comparison explicit in Sonesson (2012), I was unaware of this having been done in more systematic a manner by Straßheim (2010). This is also why I chose to write the present paper, before reading Straßheim (2010; 2016), noting similarities and differences only in the final version. Section 2.2, nevertheless, was largely rewritten as a reaction to Straßheim (2016).

on the other (1.1). Since these definitions will be found wanting, we will next consider a series of anecdotic examples, all of them non-verbal, which have been adduced by various representatives of the speech act approach to meaning, the analysis of which will suggest to us that relevance requires a social definition (1.2). This is why we next will have a look at Alfred Schütz' notion of "systems of relevancies" (1.3), which we will try to elaborate, departing from suggestions given by Aron Gurwitsch as well as by Schütz himself in earlier writings, with the aim of furnishing these systems with a more intricate structure, as well as detaching them, in a sense, from the dependence on the individual subject (1.4). We will finish this section with a reference to the notion of relevance, as it was enriched within structuralist linguistics (1.5).

1.1 From code to contingency

The term "relevance" to most scholars presently evokes the conception elaborated by Dan Sperber and Deirdre Wilson, along the lines of speech act theory, and perhaps the ideas of Paul Grice, as a precursor to that theory. According to Grice (1975; 1989), however, relevance is only one of the principles, together with quantity, quality and manner, which have to be observed, if communication is to work fluently, but Sperber/Wilson (1995 [1986]) claims all the Gricean principles can be reduced to the single principle of relevance. Interestingly, Grice (1989, 27), on the contrary, thought that the maxim of relevance had to be further amplified: "Though the maxim itself is terse, its formulation conceals a number of problems that exercise me a good deal: questions about what different kinds and focuses of relevance there may be, how these shifts in the course of a talk exchange, how to allow for the fact that subjects of conversations are legitimately changed, and so on. I find the treatment of such questions exceedingly difficult, and I hope to revert to them in later work." He did not, as far as I have been able to ascertain.

Clearly, Sperber/Wilson had a very different interpretation of the notion of relevance, since they thought everything in Grice proposed could be reduced to this principle. The characterization of relevance offered by Sperber/Wilson is a classic case of a circular definition, the explication containing that which is to be explained: "information is relevant to you if it interacts in a certain way with your existing assumptions about the world". A more commonly quoted characterization of relevance given by Sperber/Wilson is that it should "yield the greatest possible contextual effects in return for the available processing effort". This tells us how to maximise relevance. It does not tell us what it is.² We may come

² Straßheim (2010: 1436), who apparently takes this definition much more seriously than I do, ends up concluding, in the case of one of the terms, effort, that it "is in itself not very distinctive

closer to what Sperber/Wilson (1995 [1986], 2ff., 55, 196, 202) means by relevance if we regard it as the result of their attack of what they characterised as “the code model of meaning”, also called “the semiotic approach”. Their idea of semiotics is certainly too narrow (basically restricted to French structuralism), but they were not wrong in rejecting a model of the sign which had never been spelled out. They were mistaken, however, not only in dismissing signs entirely, but also in discarding any kind of typicality, or, to adopt the Peircean term, symbolicity in the process.

In this respect, the theory of Sperber/Wilson comes right out of the criticism of Lévi-Strauss, earlier formulated by Sperber (1982), according to which the exchange of women (or mates, as Jakobson generalized the term) between different ethnic groups does not carry meaning in the same sense as the exchange of commodities or the exchange of linguistic signs – only that Sperber/Wilson deny this kind of meaning to language, too (see Sonesson 2010). As a result of their critique, Sperber/Wilson conceive of meaning in terms of implication – and it so happens that this is the Stoic philosophers’ understanding of the sign, which Augustin was the first to fuse with the Aristotelean notion of the sign as made up of expression and content, as John Deely (2001) has abundantly demonstrated. Though it may be wrong to merge these different meanings of meaning, there is no point in rejecting the one or the other. We rather need to spell out their differences, as I have argued elsewhere (see Sonesson 2010).

1.2 What Mary smelled

Since so little can be gained from the definitions offered by Sperber/Wilson, it will be useful to consider instead some case studies, which I have discussed elsewhere in a different context (Sonesson 1999; 2012).³ They are all cases in which language does not play any part, but we will suggest that they still rely on rules and regularities for deriving their meaning. We will start with an example offered by Sperber and Wilson (1995 [1986], 55ff.) themselves. When Peter opens the door to their apartment, in this scenario, Mary stops and sniffs ostensibly. Following her example, Peter notices that there is a smell of gas. What Mary does, according to Sperber/Wilson, can be paraphrased as “There is a smell of gas”. On another

as an explanatory concept”, adding that the other is “the real bottleneck”. I think these observations can be generalized beyond the particular case discussed in Straßheim’s paper, i.e. the relevance of goals to future projects.

³ In these earlier papers, my main concern was with the Gricean hierarchy of intentions. The reader must be referred, in particular, to Sonesson (2012), for this discussion.

occasion, Mary and Peter have just arrived at the seaside. Mary opens the hotel window overlooking the sea and sniffs ostensibly. In this case, Sperber/Wilson maintains, there is no one particular thing that Mary may be said to mean. In fact, however, I think it is reasonable to say that Mary does the same thing on both occasions: by exaggerating the movements associated with smelling, she manages to frame off the movement, so that it appears as an iconic sign of what it would otherwise be. This gesture means, “There is a smell worthy of notice”. No doubt the kinds of things we expect to smell at our doorstep and in a hotel room overlooking the beach are appreciably different. Both stories correspond to typical situations, which we have all experienced many times, if not in life, then at least at the cinema, so that we will immediately know what kinds of smells are being referred to.⁴

In this case, Mary could be said to realize a metasemiotically quotation, transforming by means of a stretch of behaviour an instance into a type. Mary is exaggerating an action that she normally accomplishes as part and parcel of her ordinary, rather un-ostensive, life: smelling. In order to convey the message to Peter, she exaggerates this act of ordinary life. And because Peter recognizes the exaggeration as well as the ordinary act, he knows that she does so with a purpose. But first he understands what she means. Being regularities, type situations discussed here are at the level of symbolicity, in Peirce’s scheme, but they do not necessarily involve signs (though in some case they may do just that). This important distinction cannot be made from a Peircean point of view (see Sonesson 2013). Still, there can be no doubt that, at some level, taken-for-granted meanings are involved.

According to his autobiographical anecdote, Grice (1989, 93ff.) goes to his usual tobacconist (from whom he also purchases other goods) to obtain a pack of his regular brand of cigarettes, and without saying anything, he puts down the sum of 43 cents, which, at the time, was the price of the pack, on the counter. The tobacconist understands what Grice wants and hands him the pack. In this case, Grice claims, he has meant something (“non-naturally”), which he had not in case he had put down the money on the counter only to demonstrate that he was in possession of the sum necessary for buying the pack. Grice manages to accomplish this feat, I submit, because of a whole series of regularities of the particular socio-cultural Lifeworld he shares with the tobacconist, but also because of some specific principles of relevance. It must obviously be supposed that none of the other goods that Grice is in the habit of buying from his tobacconist have the cost

⁴ In fact, in my experience, the beach’s smelling badly it is not anything unheard of, for instance because of fermented seaweed. Mary would probably not do exactly the same grimace with her nose in the two situations.

of 43 cents. It is possible, of course, that Grice has already bought something else having this price, but then it has not been one of those things he habitually buys. So, in this example, the gesture of putting down a particular sum on the counter only means something because there is a regular connection, known to Grice and the tobacconist, between the sum and the pack of cigarettes. It so happens that the relation between the sum and the product is conventionally assigned; but what makes the connection meaningful here is the observation of a regularity in Grice's behaviour. In this context, it would be rather difficult for Grice to limit himself simply to demonstrate that he is in possession of the sum of 43 cents.

One is here reminded of Luis Prieto's (1966; 1975) idea of the sign as being a correlation between a series of signifiers and a series of signifieds, pertinence being the relation which links one of the former to one or several of the latter, and vice-versa. Suppose that when Grice visits his tobacconist putting down 5 cents, he wants to have a box of matches and, when on more rare occasions, he puts down 1 dollar, he wants a lighter. If the tobacconist grasps this, he and Grice have created a small system of signs between them, which correlates specific sums of money with different objects that Grice is in the habit of buying at the tobacconist's. No doubt, this sign system has never explicitly been set up, but has emerged from an extended common experience of the regularities in Grice's behaviour. The tobacconist does not really have to spend any time thinking about Grice's intentions. They follow from his behaviour.

But that is not all there is to it. Herbert Clark (1996, 31ff.) tells us about a similar, but inverted, situation, also supposedly autobiographical: Clark places two items on the counter of a drug store, and the clerk immediately understands that he wants to buy them. As Clark goes on to point out, this is a quite ordinary action of the everyday world. By placing things in certain places, such as the counter, we already convey the idea of what we want to be done. According to Clark's description, he also has to catch the eye of the clerk, but that is perhaps only necessary because the clerk, in this scenario, is occupied marking off items on an inventory. Also, note that in fact the items must have been collected at an earlier stage from the shop. If Clark puts his wallet on the counter, that does not mean he wants to buy it. But misunderstandings may result from such practices. Another case, which I have discussed elsewhere (Sonesson 1989), is the shop window. It is different, because by placing things in the window one conveys the idea that things like these are for sale inside, and this is a more enduring act than the placement on the counter. But one also signals that the things in the window itself are for sale – except if one puts up an explicit message informing the prospective customers that this is not the case, or if everyone can see that the food in the window consists of wax imitations, or if there is a convention, as in the case of Goodman's birth-day case ordered for next week, that the cake being

presently in the shop window will not serve for the purpose (See Sonesson 1989). Grice's own example participates of the counter placement convention, but in addition common knowledge is required for concluding from the sum of money to the product, instead of the reverse.

To conclude, all these examples are far from being contingent effects of singular situations: they all involve different kinds of regularities. This is not Grice's interpretation, and even less that of Sperber and Wilson (1995 [1986], 53f.), who actually claim there is a continuum between that which Grice calls natural and non-natural meaning. In doing so, however, Sperber/Wilson seems to reduce all meaning to "relevance", without there being any principle to the relevance. On the contrary, I think there must be a principle determining what is relevant also in what Grice (1989) would call natural meaning: the cloud only means rain to those who know about the relationship between clouds and rain, and who for reason of the Lifeworld choose to ignore other causes. Red spots of a certain type only mean measles to those who know about the symptoms of measles, and who do not care to take other causes or effects into account. And, to proceed with Sperber's original example, the woman being exchanged between different ethnic groups means "effect of an exchange with another tribe" only to those who are familiar with this kind of exchange pattern, and who think this is the only (or most) important aspect of the meaning embodied in the woman in question, and of the whole situation of exchange.

1.3 From contingency to system

According to Sperber/Wilson, there is only one principle of relevance, which is – relevance. On the other hand, the phenomenologist Alfred Schütz (1970) listed a series of principles, or more exactly "systems of relevancies", all broadly speaking social in nature, and having the function of guiding our interest in given situations as they occur in the Lifeworld (see Sonesson 2012). Sperber/Wilson, however, would seem to think there are no such principles, only the general task of making the best of the situation at hand.⁵ Although he does not formulate it in the same way, Grice also seems to sustain the idea of the ever-changing "utterer's meaning" reigning supreme. While something of this latter kind may remain in what Schütz (1970, 25ff., 30ff.) designed as relevancies imposed by the actual situation, the main thrust of his argument consists in imputing relevancies to the

⁵ As we will see later in this paper, Sperber's writings on evolutionary psychology would seem to suggest there is a system to relevancies, though it is not grounded in socio-cultural conditions, but in "modules" resulting from early Hominid evolution.

typicalities of the Lifeworld, in Husserl's sense of the term.⁶ And though he does not really define the notion of relevance either (as is also noted by Straßheim 2010, 1426), he certainly connects it to the notion of selection, itself dependent on interest, which is operative already in perception.

Just like Grice, Clark, and Sperber/Wilson, Schütz starts out from an anecdote taken from everyday life, even if, in his case, the anecdote is delivered to us from ancient sources: it is a story first recounted about Carneades, the ancient Greek philosopher directing the Platonic Academy at the time when it had converted to Scepticism. In this story (quoted by Schütz 1970, 4ff. from Cicero, *De divinatione*, I, XIII, XXIII), a man enters a room which is badly lighted, not being sure whether what he sees in the corner is a pile of rope or a coiled snake. Initially, he has a roughly equally weighted motivation for believing the object to be the one or the other (see Schütz 1970, 16ff.; Cox 1978, 75ff.; Schütz/Luckmann 2003 [1979–1984], 252ff.). Carneades' point at the time, obviously, was that there is no truth available, but only verisimilitude. According to the anecdote, the man then realizes that the object is not moving, which offers him some simple evidence for taking it to be merely a coil of rope. In Carneades' terms, the first level of probability is reached, the most likely. Continuing the inspection of the object, however, the man is reminded that it is currently winter, and that snakes are torpid at this time of year. The original evidence is counter-evidenced, possibly convincing the man that extreme caution is called for. Finally, he picks up a stick, strikes the object in question, and observes that it still does not move, thereby corroborating the interpretation of it as a coil of rope. Instead of contravening evidence to the first verisimilitude, he now has confirmation of it. He has, therefore, not contented himself with gaining evidence at one level, but has sought out additional indications and counter-indications which could pertain to the situation.

In Schütz's terminology, the Carneadean man has sought out those perceptions and sedimented experiences from his stock of knowledge which are relevant to the problem at hand. As Schütz (1970) goes on to observe, Husserl (1939) might well be able to go along with this description, as far as it goes, calling it a case of problematic possibilities, but he would point out that the situation into which the Carneadean man treads is a kind of prepredicative experience, pre-constituted by passive synthesis, which accounts for the experience of similarity, likeness, contrariness, and all kinds of typicality of which the situation is largely made up.

⁶ This is also, I am happy to say, one of the fundamental differences which Straßheim (2010, 1430ff.) observes between Schütz and Sperber & Wilson. However, Schütz' criticism of Husserl, quoted by Straßheim (2016, 497, 504) cannot be applied to Husserl's (1954) late work, in which he introduced the notion of Lifeworld, in which typicality figures prominently (cf. Sonesson 2015a; Steinbock 1995; Welton 2000).

Such elements, I submit, are also what makes the analysis of this situation different from those which Grice and Clark, as well as Sperber/Wilson, offer of their respective anecdotes. Adopting a Husserlean perspective, Schütz points out that the case will be different, whether the Carneadean man enters his own bedroom, where everything, except for this object, is stamped with the property of familiarity, or whether instead, he enters a room where he has never been before, where in principle everything could be new to him.

However, this may be the point where something should be added to what Schütz says, though certainly along the lines of Schütz' analysis: Suppose what he enters is a bedroom, either at a hotel, or in the apartment of some friends who have convinced him to stay overnight for the first time. In this case, basically everything will be new to him, but on the level of instances, not on the level of types.⁷ He will expect there to be (at least) one bed, complete with bedclothes, and very probably one or two bedside tables, one chair or more, a few lamps, at least in the ceiling, and (at least in the case of the hotel) a desk. No doubt this will only hold true if we transport the Carneadean man to our contemporary world, because, at his time, all this may not have been expected in a hotel room, and if we enter a hotel room of his time (supposing there to be something comparable), we would no doubt be surprised not to find all this furniture. In more or less recent times, we would also expect there to be a telephone, a television set, and a Wi-Fi connection in the room – if it is a hotel room, not, perhaps, if it is a room in our friends' apartment. Even though we cannot anticipate in detail how these objects will look in each particular case, they all form part of the “unproblematic field over against which problematical topics stand out”, as Schütz (1970, 127) expresses the case elsewhere. Even so, the heap of rope/the snake will emerge as being the main problematic possibility, but perhaps more slowly than in the own bedroom. Even when crossing the Amazonian rain forest, the heap of rope/the snake may still stand out as the most problematic possibility in the end, but not, probably, if we are also confronted with something which might be a Jaguar or simply a speckled hide perceived for a fleeting moment in the midst of the forest.

1.4 From system to scheme

As Ronald Cox (1978, 138ff.) rightly observes, Schütz is unclear about the processes accounting for the systems of relevance, whether they are active or passive,

⁷ Indeed, Schütz (1970, 56) observes: “A new experience is not necessarily a novel one. It may be new but still, as our example has shown, familiar as to its type”.

monothetic or polythetic, and whether they concern the noetic or the noesis side of the noetico-noesic correlation posited by Husserl. These issues are too complex to be broached here, but the publication of Husserl's later manuscripts concerning generative and genetic sedimentation may throw at least some light of these problems, in particular as they have been explicated by later commentators (see Steinbock 1995; Welton 2000; Sonesson 2015a). It is worthwhile mentioning, however, that, in his early writings, Schütz (1974 [1932]: 109ff.) introduces the notion of a scheme of our experience (“ein Schema unser Erfahrung”), not, as he immediately observers, in the sense of Kant, but as

ein Sinnzusammenhang unserer erfahrenden Erlebnisse, welcher zwar die in den erfahrenden Erlebnissen fertig konstituierten Erfahrungsgegenständlichkeiten erfaßt, nicht aber das Wie des Konstitutionsvorganges, in welchem sich die erfahrenden Erlebnisse zu Erfahrungsgegenständlichkeiten konstituierten.⁸

In other words, a series of earlier “polythetic acts” are now reconceived “monothetically”. Once constituted in this way, these schemes are, as Schütz goes on to explain, applied to the interpretation of new experiences. This is clearly the same procedure which Edmund Husserl (1939) and Aron Gurwitsch (1972; 1974) called *formalization*, and which the second compared to what Jean Piaget describes as “abstraction from the action”, which is a definition of the scheme in Piaget's sense (see Sonesson 1989, 97ff.); and it is also reminiscent of what the social psychologist Frederic Bartlett (1967 [1932]) called “frames” and sometimes “schemes”, as well as what has been known by these terms in more recent work within artificial intelligence and cognitive science (see Sonesson 1988, 14ff.). In later works, Schütz repeatedly uses the term “scheme of interpretation”.⁹ Schütz (1967, 299, 327f.) also describes the sign as made up of four different schemes, thus containing the sediments of experiences deriving from different spheres of existence.

What remains unclear, however, is how this notion of scheme relates to what Schütz later on calls systems of relevancies. In his *Reflections*, admittedly, Schütz (1970, 2, 36, 39, 43, 170) mentions “schemes” and “schemes of interpretation” several times, and, at least on two occasions, he talks about “schemes of interpretational relevancies” (106f.), which sounds as a hybrid between schemes and relevance systems. Curiously, the term scheme seems to be absent from Schütz'

8 In English (roughly): “a meaningful conjunction of our acts as we experience them, which accounts for the objects of our experiences which have been fully constituted in these experiencing acts, but not for the manner of the constitution process, in which the experiencing acts have been constituted as objects of our experience” (my translation).

9 This appears to be the sense in which Schütz has inspired Erving Goffman's (1975) notion of “frame analysis”, who, however, as Straßheim (2010, 1425) observes, hardly mentions relevancies.

most important posthumous work, which abounds on the theme of relevancies, in terms of both structures and systems (Schütz/Luckmann 2003 [1979–1984], 252ff.). Might not the system of relevancies be conceived as made up of schemes, or being equivalent to schemes, in which case we have a least something more of an account of the passive synthesis behind it? We will no doubt never know what Schütz thought about this, but this idea could still be taken as a cue for developing his idea of relevance systems.

According to Aron Gurwitsch (1957; 1964; 1985), every perceptual situation is structured into a theme, a thematic field, and a margin. The theme is that which is most directly within the focus of attention. Both the thematic field and the margin are in contiguity with the theme, but the thematic field is, in addition, connected to the theme at a semantic level. When attending to the theme, we are easily led to change the focus to something within the same thematic field. Changing what was earlier in the margin into a theme, on the other hand, is felt to require some kind of outside incitement. In the margin are normally found some items of consciousness that always accompany us, such as our own stream of consciousness, our own body, and the extension of the Lifeworld beyond what is presently perceivable. But the margin will also contain all items that are not currently our theme, nor connected to this theme.¹⁰ Schütz often connects his systems of relevance to such a thematic structure, though his references to Gurwitsch are rather oblique (1970, 2, 86, 161). The idea certainly originates in the work of Husserl, as well as in that of William James, but, to my mind at least, the most enlightening description was the one given by Gurwitsch, and it seems to inform what Schütz here writes.

Interestingly, Gurwitsch (1957, 271f., 310ff.; 1964, 343f., 394ff.) formulates some critical remarks on Schütz' theory of relevance, with reference to the 1945 paper "On Multiple Realities" (now in Schütz 1967, 207–259). Or, to be more exact, he claims that his use of the term "relevance" is not the same as that found in Schütz' work. And he goes on to deny that Schütz' term has anything to do with the theme-thematic field-margin structure of the field of consciousness which interests him. Clearly, at least in his later *Reflections*, Schütz (1970) took a different view. More to the point, Gurwitsch (1964, 342; his italics) observes that, to Schütz, "*a certain item is relevant to me* on the account of projects and pursuits that engage me" (which is also an aspect of Schütz' work emphasized by Straßheim 2010), while to Gurwitsch himself, "*a certain item is said to be relevant to the theme* (which may well be a plan of action or a pursuit) and also to other items because of their relevancy to the theme".

¹⁰ This is an excellent beginning for a theory of attention, as Sven Arvidson (2006) has recognized, but it is not a full-blown theory. For some further queries, see Sonesson (2010).

More light may be thrown on this contention, if we consider the curious publication history of Gurwitsch's book about the field of consciousness. It was written while Gurwitsch was living in France, and it was first published in French, though in a translation from the original English manuscript. The French translation, however, does not use the idiomatic translation of "relevance" into "pertinence", but keeps the term "relevance", always, it seems, in-between square quotes (see Gurwitsch 1957, 271). In French, the term "relevance" does not exist, though it may later, at the time of French structuralism, have infiltrated French scholarly discourse coming this time from linguistics. Nevertheless, there is a French verb, "relever", which, among other things, signifies something like "depending on" or "pertaining to a particular domain" (*Le Petit Robert*: "être du ressort de, dépendre de, être du domaine de"). Indeed, this is precisely the meaning given to the term by Gurwitsch (1957, 270; 1964, 340, his italics): that which is relevant is not simply co-present with the theme, but it is "of a certain concern to the theme. They have something to do with it." This rapprochement supposes Gurwitsch to be knowledgeable in French, in spite of having written the manuscript in English. Indeed, not only did he publish a few articles in French, but the manuscript of his lectures in that language at the Institute of the History of Science of the Sorbonne has recently been published (Gurwitsch 2002).

"Though occasionally using the term in a sense close to ours", Gurwitsch (1964, 342) observes, Schütz seems to understand relevance much more with reference to a given, embodied, and situated Ego. This seems to me less true about Schütz' later writings, at least not as I have understood them above, taking into account his recourse to the Husserlean notion of typicality. In spite of Gurwitsch's critique, I think we are justified in seeing in Schütz' relevancies a kind of *thematic adumbrations*. At least Schütz' (1970, 26) *topical relevancies* could be understood in this sense: as "that by virtue of which something is constituted as problematic in the midst of the unstructuralized field of unproblematic familiarity – and therewith the field into theme and horizon". From a Gurwitschian point of view, nevertheless, one may wonder for whom something becomes problematic while other things remain familiar. The *interpretational relevancies* seem to involve the different possible interpretations of what the problematic item could turn out to be, which, in the Carneades case, may be a pile of rope or a snake, and perhaps other things, but certainly not a table or a bed (Schütz 1970, 38ff.). These interpretations seem to me to be difficult to separate from the topical relevancies, of which they are rather a part, somewhat like a paradigm, a set of alternatives, in relation to a syntagm, the chain of connected items. The *motivational relevancies* are more obviously beside the point in a Gurwitschian perspective, because they have to do with the motives which make us act on our interpretations (Schütz

1970, 45ff.). But Schütz might have been better inspired to treat topics, interpretations, and motives as different aspects of relevance systems.

It might be useful here to contrast (as in a volume edited by Pascal Boyer and James Wertsch 2009) autobiographical memory networks, which are said to define the self, with collective memory, in the sense of Maurice Halbwachs (1952), which has variously resurfaced in recent times under such names as distributed cognition and extended mind. Gurwitsch's concern, certainly, was not with the social foundation of relevance systems, but rather with epistemological and ontological ones, but his observations may still help us go beyond the individualistic bias in Schütz' sociology. While motivational relevancies form part of the relevance network which makes up the self, they remain foreign to the collective relevance network, in which topical and interpretational relevancies are inextricably fused. No doubt this is a way of "naturalizing" phenomenology, which Schütz certainly may be taken to have done, and which I think Gurwitsch also did, *malgré lui*, when incorporating Gestalt psychology, and the work of Kurt Goldstein, into his reflections (see Gurwitsch 1957; 1964; 1966).

If we give such a social interpretation to relevance systems, which, at least in the case of Schütz, is clearly warranted, I think we can go beyond the opposition which Gurwitsch sees between his own notion of relevance, and that of Schütz. In his critique of epistemological individualism, and in favour of externalism, Robert Wilson (2004, 77ff., 107ff.) argues that most intentional contents of consciousness must have a "context-sensitive realization", that is, in other terms, they must "go beyond the head". Within phenomenology, this is of course trivially true, since intentionality is defined as transcendence in immanence, but Wilson is clearly heir to the other tradition starting out from Franz Brentano, analytical philosophy, although he does not reduce intentionality to a linguistic problem. Interestingly, however, Wilson (2004, 112ff., 116f.) claims that, apart from "entity-bound realizations", which are defined by properties entirely internal to their being, there are a lot of "wide realizations", in the case of which the "noncore part is not located entirely within" the individual, and also "radically wide realizations" in which the "core part is not located entirely within [...] the individual who has" the property in question. An example of a wide realization would be the property of being a predator which is something which can only be understood in relation to a certain ecological niche, and also in relation to certain other animal species. A radically wide realization could be the act of signing a check, in which case the part accomplished by the individual, that is, the movement of the hand which produces a scribble, is a very small part of all the institutions and conventions necessary for securing the identity of the act.

Apparently without knowing it, Wilson has rediscovered the notion of "mind-independent" relations, which preoccupied the Scholastic philosophers

(see Deely 2001, 353ff., who gives such examples as being a judge, a priest, or a teacher; cf. Sonesson 2010, 209ff.). As far as I know, however, the Scholastics did not make the fundamental distinction between wide and radically wide realizations. The examples given both by Wilson and Deely show that this kind of relations is very common: in fact, we will be hard pressed to find examples of phenomena which are not at least to some extent “wide” or “mind-independent”. Wilson (2004, 141ff.) makes still another important point: although most phenomena in consciousness may have “wide realizations”, they are still owned by a subject: “And my belief that Paris is the capital of France remains *my* belief even though it has a wide realization.” This is, I submit, how we should think of relevance systems. But they must certainly be radically wide realizations.

1.5 First structuralist excursus

“Relevance” (in French “pertinence”) also happens to be the term used within structuralist linguistics, and thus transferred to the linguistically inspired semiotics of the sixties, to designate those features of the sound wave which made the difference between one phoneme and another, and thus could distinguish one word from another with a quite different meaning (See Trubetzkoy 1939; Hjelmslev 1943; Prieto 1966; 1975). Thus, it is because of the relevance of the feature pair sonorous vs. mute, that /b/ and /p/ are different phonemes in English, and that “best” and “pest” are different English words. Still, a lot of the information contained in the sound wave does not serve to distinguish phonemes, and thus words, of the English language; some of this information, at the opposite end of the relevance scale, separates the voice of one person from that of all others; and in between is found everything which carries information about the dialect spoken, the emotional state of the speaker, and so on. Indeed, this is the kind of information which could be relevant a second time, defining what Louis Hjelmslev (1943), rather idiosyncratically, called connotational language, as exemplified, according to Hjelmslev himself, by the fact of everything he said conveying the meaning “Danish language”. Even if we allow for the fact that Hjelmslev really also spoke in French, and perhaps even in English (in which language he at least wrote some papers), the example is not ideal, because it supposes that exactly the same meaning can be conveyed in one language as in another (which Hjelmslev would be the first to deny). If, instead, we suppose that Hjelmslev spoke perfect French, but with a Danish accent (which he may not have done), the difference between the way he spoke and the speech of a Frenchman would be relevant a second time, for conveying the information that French was not his native language (See further Sonesson 1989, 179ff.).

Although Schütz (unlike Gurwitsch) never appears to refer to the structuralist tradition in linguistics, his definition of the sign in terms of the apperceptual, appresentational, referential, and interpretational schemes (Schütz, 1962, 322) is very much in this spirit (see Sonesson 1989, 184). Indeed, the apperceptual scheme designates the order of objects to which the immediately perceived object belongs considered as a self, while the appresentational scheme concerns the same object considered as a member of an appresentational pair, thus referring to something other than itself. This is the distinction between substance and form in structuralist linguistics, exemplified, in the case of language, by the sound produced by the speaker (which may thus convey connotations in addition to the linguistic meaning) and the phoneme defined by the language system. The referential scheme pertains to the appresented object of the pair as “merely analogical”, whereas the interpretative scheme concerns it as member of a particular type of pairing. Perhaps we can understand this as involving, in a parallel fashion, the referent as a self, as opposed to the content, as which it is given in the sign. Again, we would have a distinction between substance and form and, more concretely, between referent and content, or, in Peircean terms, between the dynamical and the immediate object.

What this means is that that which is not relevant is not lost. It signifies, but at another level, and/or for another purpose. This is why I have used the distinction between relevance and winnowing to pigeonhole the distinction between the *Lebenswelt*, as defined by Husserl, and the *Umwelt*, as delineated by Jakob von Uexküll (see Sonesson 2010). As far as I know, neither Husserl nor Uexküll were aware of the notion introduced by the other, although they both moved in an intellectual climate very much dominated by Neo-Kantianism. While the two notions have a lot in common, I believe that they can be retrospectively separated, by adding to the *Lebenswelt* properties not yet contained in the *Umwelt*.

In contrast to an objectively described ambient world, the *Umwelt* is characterized, for a given subject, in terms of the features which it perceives and the features that it impresses on it, which together form a functional circle. According to a by now classical example, the tick hangs motionless on a bush branch until it perceives the smell of butyric acid emitted by the skin glands of a mammal, which sends a message to its legs to let go, so that it drops onto the mammal's body. This starts a new cycle, because the tactile cue of hitting the mammal's hair incites the tick to move around in order to find its host's skin. Finally, a third circle is initiated when the heat of the mammal's skin triggers the boring response allowing the tick to drink the blood of its host. Together, these different circles consisting of perceptual and operational cue bearers make up the interdependent wholes of the subject, corresponding to the organism, and the *Umwelt*, which is the world as it is defined for the subject in question.

Not all animal worlds are as simple as this, and the *Lifeworld* of human beings certainly is not. It could be said that the *Umwelt* of the tick consists of only three percepts and three actions. Not only does a human Lifeworld consist of much more properties (which is not to say that there are no properties of “the world as such” which are filtered out of the human’s), but these properties are not either there or not, but rather present in perceptual adumbrations. To some extent, it may perhaps be said that properties are more or less relevant; but, more emphatically, they are relevant to different domains, interpretations, and purposes – or, as we now can say, to different systems of relevancies.¹¹

2 Relevance between system and novelty

One research path, after Dan Sperber’s (1982) criticism of Lévi-Strauss’ idea of meaning, goes to his invention, together with Deidre Wilson, of relevance theory, which in itself is an outgrowth of speech act philosophy. Another itinerary, which at first appears to be divergent, led Sperber to evolutionary psychology, combined with modularity theory. As we will see below (2.1), there is a paradox to this, because it means that, at least to some extent, Sperber will have to abandon the absolute contingency of his pragmatics model. Nevertheless, the kind of structure which he now recognizes is found in the brain and, originally, in the genes. We will first show in what way mainstream evolutionary psychology, and in particular the modularity approach, are problematic (2.1). Next, we will suggest that the general principles posited at the biological level, by both experimentalists and ethnologists who are colleagues and followers of Sperber, can just as conveniently be understood in terms of the general structures of the Lifeworld (2.2). As we will see, another biologically inspired follower of Sperber tries to explain the emergence of modules in terms of the survival of the fittest, where the game is won by the one who has most new information to offer. But clearly, both in Sperber’s and Schütz’ versions of relevance theory, relevance has more to do with “the given” than with “the new”. We won’t have to discuss whether this just-so story has any merit as an explanation for the emergence of modularity. If so, it could just as well justify the structures of the Lifeworld. But, as Schütz can be taken to suggest, although somewhat obliquely, relevance involves both the given and the new (2.3). This brings us to our second structuralist excursus, where we show

¹¹ There is another way in which classical structuralism, in particular the Prague school, has something to offer concerning our present problem, and that is in terms of the distinction between given and new, to which we will turn in section 2.3 below.

that the double distinction between Given and New and Theme and Rheme was already prefigured in the work of Alfred Schütz (2.4). Merging these two disparate approaches may therefore be seen as a way to go deeper into the intricacies of a theory of relevancies.

2.1 Relevance systems as modules

Dan Sperber, as described above (1.2) would seem to be out to reduce all meaning to purely contingent factors, that is, in linguistic terms, to do away with semantics in favour of universal pragmatics. When he attacks what he calls the code model of communication, he seems not only to want to get rid of the Shannon-Weaver metaphor of recoding and transport, as it was introduced into linguistics and semiotics by, among others, Roman Jakobson and Umberto Eco, which is something I could only commend him for, since I have tried to do the same (see Sonesson 1999, 2014). However, Sperber also appears to be intent on abolishing the idea, nowadays often attributed to Ferdinand de Saussure, but in fact stemming from the grammars of Greek and Roman antiquity, as well as from the Encyclopaedists and the French Ideologues, according to which (at least linguistic) meaning has to be systematically grounded. This is a tradition which goes against speech act philosophy, as initiated by Austin and Grice, continued by Searle, and exacerbated by Sperber/Wilson. In a less articulate form, this is also the view which seems to be taken in Sperber's (1982) earliest book. Paradoxically, however, it appears that the perspective which Sperber (1996; 2000) introduces in his later works must take us in the opposite direction, for, at least if the consequences of his profession of being an adherent to mainstream evolutionary psychology are spelled out (see Sonesson 2016a), he will need to posit some invariants of meaning, though they would not be socially, but biologically, grounded.

Trying to account for mainstream evolutionary psychology, as well as for modularity psychology, would certainly take us too far from the purpose of this paper. Suffice it to say that what I have elsewhere (Sonesson 2016a) characterized as mainstream evolutionary theory may best be understood as an overwrought version of the so-called "modern evolutionary synthesis", which notably combines Darwinian evolution with Mendelian genetics, and that some of the main tenets of this theory have been popularized by such writers as Richard Dawkins and Stephen Pinker, the former infamously epitomizing the theory as that of the "selfish gene". The origin of modularity theory is found in Noam Chomsky's postulation of a "language learning device", which he claimed to be quite independent of general intelligence, and the generalization of this idea to other parts of the human mind, realized by Jerry Fodor, who nevertheless went on to caution others

of the temptation to posit “a massive modularity of mind”. Stephen Mithen (1996) did not listen to this admonition, but claimed that the prehistorical mind was made up of modules for at least social, natural history, technical and linguistic intelligence, which were nonetheless later fused together in the modern mind. The post-modern synthesis of modularity theory and evolutionary psychology, however, was accomplished by John Tooby and Leda Cosmides (2000), who had no misgivings about positing an open list of modules, or “devices”, in the mind, and who thought that these devices, although they have supposedly been developed as responses to the evolutionary situation of the early *Homo Sapiens*, are still operative in contemporary human beings.

Although we cannot discuss here what modularity means to Fodor, Mithen, or Tooby/Cosmides, it will be necessary to mention here what is taken to be the defining properties of modules: they are specific to a particular domain of mental operations, genetically determined, associated with distinct neurological structures, and computationally encapsulated, which is to say that each of them works independently of all other modules in the mind. This makes this brand of evolutionary psychology into some kind of phrenologist revival. Therefore, it is important to note that the relationship of modules to neurological structures is purely speculative. I, at least, know of no neuroscientist who believes in the existence of modules. Indeed, two neuroscientists (Panksepp/Panksepp 2000) have delineated “the seven sins of evolutionary psychology”, one of which is “massive modularity”, arguing instead for the plasticity of the human mind.

In his second anthropological book, Sperber (1996) clearly declares himself a devotee of evolutionary psychology, but he is mostly concerned with revising Dawkins’ proposal for a theory of cultural evolution, denying part of the parallel between genes and “memes” postulated by Dawkins. It is only at the end that he initiates a discussion, which at first seems rather open-ended, on the existence of modules (see Sperber 1996: 113, 119ff). In later publications, nevertheless, Sperber (2000; Sperber/Hirschfeld 2004; Girotto et al. 2001) does not only use a modularity approach, but sets up a “defence of massive modularity” (Sperber 2001), trying to demonstrate that modularity theory is compatible with the flexibility of interpretations which seems to be a requirement of relevance theory (Sperber 2004). Still, if one wants to see concrete applications of Sperber’s modularity theory, it might be better to go to his declared followers, such as Jean-Louis Dessalles (2000) and Pascal Boyer (2002), which is also what we are going to do in due time.

Along with a long row of other scholarly approaches, evolutionary modularity theory is clearly committed to the following views, as expressed by Robert Wilson (2004, 15, my numbering and additions):

- (1) *The Internal Richness Thesis*: Structures and processes internal to the individual /mind/ that are important to the acquisition and development of X are *rich*.
- (2) *The External Minimalism Thesis*: Structures and processes external to an individual /mind/ play at best a secondary causal role in the acquisition and development of X.

Wilson describes the set of approaches corresponding to these criteria as “individualism”, and that may be correct as far as the mode of access to the structures and the processes is concerned, but the subset of these approaches espousing evolutionary theory must take for granted that those parts of the genes and/or brain structures which account for the different modules are essentially identical from one individual to another. The same data adduced by evolutionary modularity theory would therefore seem to allow for the opposite interpretation, according to which the external information is rich, and the contribution of internal structures is minimal. Developing ideas from the neuroscientist Merlin Donald (1991, 2001), I have elsewhere proposed that such processes and structures which are common to human beings may more plausibly be incarnated in “types of memory” shared between individuals, such as behavioural patterns, including gestures, acts of imitation, language systems, pictures, and writing (see Sonesson 2016a; submitted).

Nonetheless, evolutionary modularity theory is clearly committed to a couple of other constraints, which we could formulate as follows: 3. The processes and structures in one part of the mind (a module) are “encapsulated”, that is, their workings cannot be influenced by other parts of the mind (other modules); 4. The functioning of the modules is automatic, and not open to inspection either within the module, or drawing on other mental structures, whether modular or not. 5. The modules were developed as a result of the evolutionary history of human beings, and are therefore adapted to the kind of environment, sensibly different from the present one, in which *Homo sapiens* first was differentiated from other species.

2.2 From modules to the world taken for granted

One should not expect scientific theories to adhere too closely to empirically verified facts, but evolutionary modularity theory appears to entertain an appreciable distance to such facts that have been ascertained. It is not my business here to demonstrate the falseness of evolutionary modularity theory, but only to show that the kind of facts adduced to confirm the theory may just as well be accounted for by means of socially based relevance systems. We will start by having a look at the experiment which has been said by others to be the

single empirical evidence possibly favouring evolutionary modularity theory: the revised Wason test (see Davies et al. 1995).

In the original version, Wason's experiment involved a set of four cards placed on a table, each of which had a number on one side and a coloured patch on the other side. The visible faces of the cards showed 3, 8, red and brown. The task was to determine which card(s) must be turned over in order to test the truth of the proposition that if a card shows an even number on one face, then its opposite face is red. From a purely logical point of view, only a card with both an even number on one face *and* something other than red on the other face can invalidate this rule. Therefore, only the brown card and the card with an eight needed to be turned over. Wason's subjects failed miserably to accomplish this task: less than 10 percent of them got it right.

Leda Cosmides (1989) replicated this experiment, formulating the task in more familiar terms: thus, if the rule is (rather realistically in the contemporary world) that, if you are drinking alcohol, then you must be over 18, and the cards show the age on one side and the beverage on the other, e. g., "16", "drinking beer", "25", "drinking coke", most people have no difficulty in selecting the correct cards ("16" and "beer"). Since any other combination would be an example of cheating in relation to this rule, which can be supposed to be a very important thing to know about an individual in prehistoric societies, Cosmides draws the conclusion that she has discovered the existence of a cheater discovering device, which has become specialized in the human brain as a result of our evolutionary history. Cosmides here goes very fast down the level of abstraction, because, even if we do not, in our everyday life, react according to the requirements of formal logic, this experimental result is very far from showing, until more studies have been made, that a specific cheater module is needed. In between formal logic, and the cheater device, there are several levels of abstraction, and one, a particularly fundamental one, or so I believe, is the level of the Lifeworld, or, as Schütz would have said, the world taken for granted. Clearly, you do not need a specific cheater device to solve the version of Wason's puzzle presented by Cosmides, but only to have access to the common sense socio-cultural Lifeworld in which you live, in which certain issues happen to be, again in Schütz' terms, relevancies imposed by the present moment.¹²

¹² Davies et al. (1995) argue, on a methodological basis, that Cosmides' experiment does not show what she claims, notably because the experimental set-up did not manage to exclude the necessity of having recourse to general intelligence. Giroto et al. (2001), in which study Sperber participated, and Sperber (2005) claim that there is no contradiction between the postulation of this kind of modules, and the flexibility required by relevance theory, in the sense of Sperber & Wilson. However, Giroto et al. (2001, B75) conclude that their study "provides no evidence for or against the existence of domain-specific mechanisms to reason about deontic rules [...] or some

Without worrying about any of these subtle issues, Pascal Boyer (2002), from the start, declares himself a follower of Sperber, but, for most of his book, his references to Sperber's work remain rather oblique, and mostly couched in terms of "systems of inferences". As far as I can tell, this expression is never used by Sperber.¹³ The idea of there being a (or several) system(s) to inferences seems to contradict the very spirit of Sperber/Wilson's relevance theory; on the other hand, it appears to anticipate Sperber's later carrier as a devotee to evolutionary modularity theory. Interestingly, however, Boyer posits some "systems of inferences" which could just as well be understood as social relevance systems, and some of them have been anticipated in my own work of phenomenologically inspired semiotics (Sonesson 1989; etc.), but also, in part, in psychological studies (Mandler 2006 [2004]; DeLoache 2000, etc.). From a phenomenological point of view, it is rather the second term which creates problems, for, to the extent that relevance systems result from passive synthesis, they, like empathy (see Sonesson 2013), cannot consist in inferences, properly speaking, but must be sediments of earlier acts.

Boyer is out to explain religion, which may account for some of the "inference systems" which he posits. Still, he does not give any more specific reasons for positing these systems. An example of an "inference system" given by Boyer (2002, 131f.) is face identification. There are reasons to think that face identification is a good candidate for being an in-built system, but the reasons Boyer gives for it being a module, when properly considered, would rather suggest it is a social system:

We automatically register these subtle features that make two faces different, but we ignore these same cues when presented with animal faces. [...] Our interaction with people depends, obviously, on who we are dealing with. By contrast, our interaction with giraffes, snakes or hyenas does not depend on which animal we are chasing or running away from, but on what species they belong to, and that may be why our brains are biased not to notice those fascinating differences between giraffe faces.

To argument at the same anecdotal level, we may observe that we easily see the differences between faces of people to whom we are accustomed, but not to other faces. It is a common prejudice in Europe that all Asians look alike, and it seems that Asians hold the corresponding notion about Europeans. As soon as you start travelling in Asia, you begin to see things otherwise. And those who live closely

evolutionarily significant subset of these rules". While these results are interesting, they are not required for the present argument.

¹³ But Sperber (2005) and Sperber/Hirschfeld (2004) talk about "the cognitive system" (which is made up of modules). And, Sperber/Wilson 1995 [1986] certainly have a lot to say about inferences.

with animals will not agree with Boyer's contention that we do not see differences in animal faces. Most children do not, however, grow up surrounded by giraffes or other animals, but by human beings, so this may readily explain why they easily identify different human beings, but not different giraffes.

Boyer (2002, 112ff.) characterizes "inference systems" as "specialised systems" which only handle "a limited aspect of the information available about our surroundings" and yet produce "very smart inferences about that aspect". Some of those systems he mentions serve to make the distinction between things that move versus those which do not move, things that are animate and thus move by themselves and things which only move because something else has initiated the action, natural things and those which are artificially made, and so on.¹⁴ Together with three-dimensionality as opposed to two-dimensionality, these are the properties which I have distinguished as being part of the fundamental hierarchies of the Lifeworld (see Sonesson 1989; 2010). Jean Mandler (2004) demonstrated, in her studies of small children, that they could readily make the distinction between animate and non-animate beings, and Judy DeLoache (2000) showed in her experiments that the distinction between two-dimensionality and three-dimensionality is something that children need time to grasp, which happens around three years of age. There can be no doubt that these are basic systems of relevancies, in Schütz' sense. As to the question whether they are innate or learned, the jury is still out, and may continue to be so for ever.

2.3 Given relevancies and new ones

In our literature review, so far, relevance always seems to have to do with that which is known beforehand, presupposed, or inherited from earlier experience, which is applied to the given situation. In his attempt to account for the evolutionary origin of language, Jean-Louis Dessalles (2000), taking his cues from Sperber/Wilson, nevertheless understands relevance as the opposite of that which is taken for granted, that is, that which introduces some new element to the situation. While Schütz as well as Sperber/Wilson treat relevance, expressed in linguistic

¹⁴ Interestingly, Boyer (2002) uses these categories to claim that supernatural beings are simply things which are reassigned to a superior category of which they are not normally members, as in the case of eavesdropping trees or bleeding statues. This happens to be exactly the same definition which I have given of metaphors (Sonesson 1989, 330ff.; 2015b). While there may certainly be a similarity between these two humanly possible ways of conceiving things which are not part of the ordinary common sense world, I believe that there is an important difference, which can only be laid bare once we take in the wider social context.

terms, as something *given* in the situation, Dessalles presents it as *new* information (See section 2.3). It is true that he does so in the context of a just-so story which spans a lot of evolutionary time, but he does not deny that this may still be true of every situation of meaning-exchange since then. In any case, we will not here be concerned with the plausibility of the evolutionary origins hypothesized by Dessalles. Suffice it to say that, according to Dessalles (2000, 245ff.), who thereby adopts a hyper-adaptationist framework, the famous survival of the fittest depended on the ability to offer new, and thus relevant, information, and the advantage lost by sharing this information with others was compensated for by the reputation gained by the one presenting this information, who thus had the opportunity to spread his (not hers, at the time) genes more widely. If this sounds like a caricature, I apologize. Dessalles' proposal is considerably more complex, but, in the present context, we are only interested in the basic scenario. But, for those of us who have lived in France, it is difficult not to see this as a case of the life of the Parisian intelligentsia being projected back in evolutionary time.¹⁵

No matter what we think about the evolutionary paradigm proposed by Dessalles, it poses the curious question whether what is relevant is that which constitutes new information, or that which is presupposed. Straßheim (2010, 1427ff.) has a long and intricate discussion of this alternative, couched in terms of “contextualisation” versus “continuation”, and attributed, respectively, to Sperber/Wilson and Schütz. The former attribution is no doubt correct, as applied to Sperber/Wilson's classical book, but it is only true in a fairly Pickwickian sense for the later version featuring “massive modularity”. As for Schütz, his indications may be sparse, but if we take into account his background in Husserl's work, and thus in the latter's model of time consciousness, the irruption of new facts can only be understood on the background of routine experiences, as the disconfirmation of protentions based on earlier retentions of retentions of retentions, and so on (see Sonesson 2016b; in press).

In his model of time consciousness, Husserl (1966 [1928]) specifies that each present moment already includes references to the past (retentions), which comprehends references to even earlier moments, and so on (retentions of retentions, etc.), and references to the future (protentions), enclosing references to even later moments, and so on (protentions of protentions, etc. See Figure 1a). This means that each retention flows into another, and so do the protentions, and there will be retentions of protentions and protentions of retentions in addition. Retentions and protentions may already give rise to a kind of sedimentation of meaning,

¹⁵ Curiously, Dessalles (2004, 102ff.) dedicates a lot of space to Stephen Jay Gould's critique of hyper-adaptationism, in a positive spirit, only to present an evolutionary scenario which depends on pervasive adaptations.

as Husserl (1939) understood the latter term: as the layering of meaning over meaning in time. Thus, retentions and protentions are clearly distinct from the acts of remembrance and anticipation, which are active events in their own right. As Husserl (1966 [1928]) insists, protentions and retentions are parts of acts, and should not be confused with the active acts of remembering and anticipation. We may well think of the system of references, being of the nature of passive synthesis, as situated within such a system of protentions and retentions. However, if relevance is to afford anything new, an independent act of anticipation or, more paradoxically, memory, has to emerge on the background of such a stream of consciousness (see Figure 1b). Indeed, we should perhaps also add the third kind of independent acts of consciousness mentioned here by Husserl, that of phantasy. This should naturally account for the dialectics of continuation and contextualization suggested by Straßheim (2010, 1426ff., 1437ff.).

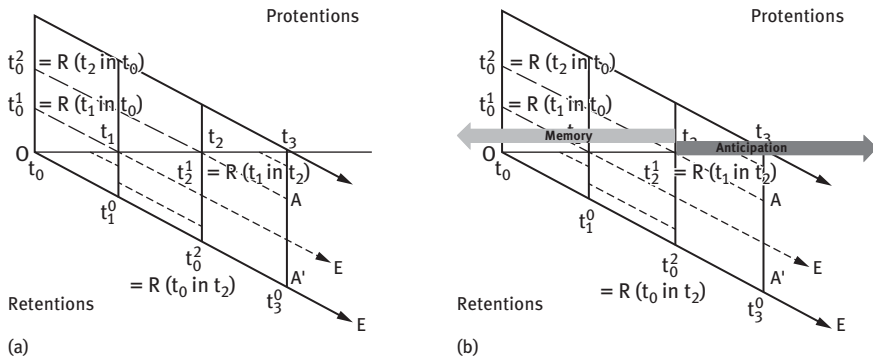


Figure 1: Husserl's (1966 [1928]) diagram of time consciousness, as extended in both temporal directions in Sonesson (1989): (a) the stream of consciousness; (b) stream of consciousness with independent acts of memory and anticipation situated within the stream

When Schütz (1970, 124) writes: “The problematic emerges on the foundation of the unproblematic, and the unknown refers to the familiar; the novel experience is novel because it cannot be related and referred to the sum total of known things”, he may simply be spelling out the basic structure of the Lifeworld as given in consciousness. As Straßheim (2016, 502), who quotes the first part of the formulation, suggests, this could be taken to imply “that the unquestioned routine course of things is the default which needs no explanation (it is, in this respect, ‘taken for granted’ by the theoretical observer as well), whereas a revision of the routine depends on a ‘problem’ which triggers it”. Nonetheless, it could also be understood to mean that, in any given moment, the problem which

stands out (which could be, but is not automatically, the piece of news) is, as a matter of course, embedded in the structure of the situation which is unproblematic and familiar. In other words, Schütz does not necessarily mean to say that, in the normal course of events, all presuppositions are fulfilled, but merely that what is new and/or problematic only can become salient on the horizon of all that remains customary and familiar.

Schütz' *Reflections* are preliminary notes for a publication, which not only explains but justifies their being somewhat contradictory and vague. Still, there are places, such as the following where that which is relevant, if perhaps not the relevance systems, appear as novel:

Subjectively we may identify an actual experience with something already experienced as the "same", or the "same but modified" or a "like one"; we may "recognize" it or find out that there is nothing within the stock of our previously typified knowledge congruent or even comparable with the actual one – and then we will acknowledge this actual experience as novel, that is, as one which cannot be matched with something already experienced by means of the passive synthesis of recognition. (Schütz 1970, 22)

Schütz may not have been as influenced by Gestalt psychology as Gurwitsch, but I think we can clarify this "interplay of operations" which the whole time "starts again" (Schütz 1970, 128) with a reference to the ideas of that contemporary movement of German psychology. We might say about typifications what Sander and Volkelt (1962) said about wholes, that if the distance between the occurrence and the "good form" is small, the difference is not observed; next, it will be seen as a not quite perfect example of the configuration in question; and even further from the ideal, it can be experienced as in an equilibrium between two different "good forms". But, of course, it might also break up the good forms entirely.

In fact, I think there is a place, and a very central one indeed, for novelty in Schütz' relevance systems: it is the interpretational relevancies, as opposed to the topical ones:¹⁶

The interplay of operations starts again, or in our language new interpretational relevancies supervene and the whole process of inquiry recommences [...]. Motivational relevancies are simply taken for granted, and the topical kind are either interpreted as emergent novelties or as the results of the operation of interpretational relevancies. Now while it is true that methods refer merely to the ascertaining of what is interpretationally relevant, this latter concept refers to a topic at hand. How these topical relevancies emerge is beyond the reach of operational rules and methodology – except, as we stated before, that interpretational relevancies may make visible new aspects of the previous topical aspects hidden in the

16 Also compare Schütz' earlier notion of schemes of interpretation (see section 1.2).

hitherto unquestioned horizontal implications (in which case, subthematization and even covering the prior topic may occur). (Schütz 1970, 128f.)

It is a problem, nevertheless, as Straßheim maintains, that novelty tends to appear in Schütz' writings mostly as – a problem. As Straßheim (2016, 505) notes, “on the contrary, novel aspects may strike us as interesting in their own right, precisely because they are novel”, going on to observe that “we often deviate from a routine for the sake of diversion, even at the risk that our curiosity may hamper the routine. After all, routines in particular tend to become boring.” In fact, at least according to the Russian Formalists and the Prague school, the whole business of art is about breaking routines or, as they formulate it, render something strange or unfamiliar or, in Bertold Brecht's version to “alienate” (“verfremden”) it. In several papers, I have, on the one hand, showed that this conception can be described using the Husserlean notion of time consciousness, while, on the other hand, I have maintained that the procedure in question in fact only is characteristic of Modernist Art. In my most recent paper on this theme (Sonesson 2016c), nonetheless, I discuss Ellen Dissanayake's somewhat attenuated version of this claim, according to which art originates in different kinds of behaviour, including ritual, which are geared to making things “special” or, as she also says somewhat pleonastically, to “artify” them. Ritual is of course a rather special way of breaking a routine, since it is a routine in itself, though less customary than those of everyday life. When it comes to breaking routines, nothing goes further than Dadaism, Surrealism, and Situationism. However, my main critique of Dissanayake's conception consists in pointing out that everyday life is full of “special”, and even perhaps somewhat “strange”, occurrences.

So “spontaneity”, as Straßheim (2016) calls it, is certainly there, in everyday life as well as in art. But it cannot do without the systems of relevancies.

2.4. Second structuralist excursus

Within linguistics, the distinction between given and new goes back at least to the Prague school, where, under the name of “functional sentence perspective”, it was the only thing to survive the extermination of the Prague school ideas by the Communist regime. Nowadays, however, these ideas are mostly associated with the work of Michael Halliday and his school. In fact, Halliday suggests a further division, opposing Given and New to Theme and Rheme, the distinctions of which do not necessarily coincide. Indeed, as noted by Halliday/Matthiessen (2014, 119f.), the unmarked situation is for information structure to coincide with thematic structure, the Theme falling within the Given, and the New within the Rheme:

But although they are related, Given + New and Theme + Rheme are not the same thing. The Theme is what I, the speaker, choose to take as my point of departure. The Given is what you, the listener, already know about or have accessible to you. Theme + Rheme is speaker-oriented, while Given + New is listener-oriented. But both are, of course, speaker-selected. It is the speaker who assigns both structures, mapping one on to the other to give a composite texture to the discourse and thereby relate it to its environment. (Halliday/Matthiessen 2014, 120)

This is curiously reminiscent of a passage written by Schütz (1966, 322):

The sign used in communication is always preinterpreted by the communicator in terms of its expected interpretation by the addressee. To be understood, the communicator has, before producing the sign, to anticipate the apperceptual, appresentational, and referential scheme under which the interpreter will subsume it.¹⁷ The communicator has, therefore, as it were, to perform a rehearsal of the expected interpretation.

This is the sense in which also that which is new has to go through the process delineated by the relevance systems. If novelty cannot not be held in common by the “sender” and the “receiver”, it has to be divided up. But that, of course, is only true until the next sentence begins.

3 Conclusions

I started this paper in an authentic Greimasean style, looking at the dictionary definition of the word “relevance”, but I immediately had second thoughts, claiming that the word, unlike most words studied by the Greimas school, had already been transformed into a technical term in at least two distinct scholarly traditions, that of Schütz and that of Sperber. To this we even added a third tradition, that of structuralist linguistics. At the end of the journey, we find that, in all traditions, the notion of relevance remains seriously underdetermined. Schütz, at least, by differentiating topical, interpretational, and motivational relevancies, offered some internal structure to the notion, but none of these subcategories have been clearly defined. Nevertheless, we have suggested that the third tradition, that of structuralist linguistics, may be of some assistance in exploring this path. We have seen that, in the second tradition, that starting out from Sperber, the term is up for grabs, because not only his followers, but Sperber himself, seem uncertain about its scope. Still, we have tried to initiate the task of further elucidation in the

¹⁷ On these schemes, see 1.4 above. I suppose the interpreter stands in here for the interpretational scheme.

present paper, by combining elements of the three traditions referred to above. In so doing, we have showed, against the first Sperber, that relevance cannot be resolved into contingency and, against the second Sperber, that the required generic principles do not need to be biologically grounded, but can derive from the general structure of the human Lifeworld. We have also proposed to see in the systems of relevancies a development of what Schütz earlier called the schemes of interpretation, which means that it is made up of the sedimentations of earlier acts of meaning, which can be reactivated in the present. This means that they are structures of the Lifeworld as described by Husserl in his posthumous papers, in other terms, as part and parcel of the Homeworld, that is, of the “geo-historical process of becoming (of sense) through the cogeneration of homeworld and alien-world” (Steinbock 1995, 171).

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Michael Barber

Finite Provinces of Meaning: The Expansive Context of Relevance

Abstract: By detecting the practical purposes at work in communication and envisioning communication as based on such purposes instead of on literalness and truth, Deirdre Wilson and Dan Sperber's *Meaning and Relevance* converges with Alfred Schutz's understanding of the pragmatic relevances at work in everyday life, as opposed to the relevances governing in scientific theory. While Schutz's work on relevances is more comprehensive, it could support the approach of Wilson and Sperber through its views on: the nesting of narrow purposes within broader ones; bodily expression; the vagueness and flexibility of typifications; the fragility of communication; and the subordinate role that concerns for truth play in everyday life. However, just as communication and understanding require attention to the broader contexts of interlocutors – a point Wilson and Sperber recognize – the broader context ought to include entire provinces of meaning, such as poetry or literature or scientific theory, in which different, less practical relevances govern than those of everyday life.

1 Introduction

An African-American friend and I were walking through a store, and he greeted several white women who did not respond to his greeting. The third time this happened, he turned to me, who am white, and said “I have greeted three white women, none of whom has responded to me What’s wrong with you people?” We both immediately burst into laughter.

Following suggestions given in Alfred Schutz's “On Multiple Realities” (Schutz 1962b), I (Barber 2015, 48–52) – have argued elsewhere that such humor involves the adoption of a special *epoché* analogous to Edmund Husserl's phenomenological *epoché*, by which one takes up a different comprehensive attitude toward the world of everyday life. As Schutz (1962b, 233) argues, entrance into finite provinces of meaning, such as phantasy, dreams, or scientific contemplation, modifies aspects of the world of daily life. Hence, in phantasy, for instance, one is free from the pragmatic motive governing the natural attitude toward the world of everyday life, no longer seeks to transform the outer world,

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and envisions oneself acting in ways not limited by the usual constraints of time and space.

My friend's comment suddenly catapulted both of us into the finite province of meaning of humor. One might attempt to distinguish the world of humor from the world of daily life by focusing on my friend's sentence "What's wrong with you people?" and speculate on the modification of meaning that sentence, taken in its everyday life significance, undergoes within the province of humor. This rhetorical question, considered in its literal meaning, suggests that that the white women who ignored him were motivated by some kind of racial fears, that such racist fear is part of a wrongness typical of white people, and that I, by reason of being white, partake of that wrongness. Of course, there are logical fallacies and unwarranted generalizations occurring when one lays out the statement's presuppositions in this way, but the humor lies in the contradiction, the frustration of intentional expectations, involved when my friend grouped me, his white friend of many years, among white people burdened with racist fears. This upsetting of expectations, which occurs in all kinds of humor (as when for instance, an innocent person is hit with a thrown cream pie intended for someone else or a clown raucously bursts out of a softly-playing music box), makes it clear that one has been transplanted out of everyday life and into a different finite province of meaning. As a consequence, one ought not to look on my friend's rhetorical "What's wrong with you people?" as implicitly affirming factually that the racist fears encumbering some white people ought to be attributed to me simply by reason of being white. As a matter of fact, most of the factual presuppositions that I have suggested underlie his rhetorical question, once we recognize that we are in the finite province of humor, become irrelevant. For the sake of the humor, it doesn't really matter if the women ignored him because of racist fears or if such racist fear characterizes all white people, or if I deserve to be lumped among such fearful white people. It is unnecessary to examine whether any of those suppositions are true or false since the humor proceeds quite well regardless of the truth or falsity of the presuppositions of the statement that comically frustrates my anticipations.

The problem, however, is that this account suggests that the world of daily life is basically a factual world, where the concern for truth and falsity is preeminent, and that a finite province of meaning like humor consists in simply breaking free of the "matter of fact" character of everyday life. Similar arguments have been made, for instance, that literature or literary devices, like irony or metaphor, intrude upon and alter a fundamental, pre-existing literal stratum of meaning.

Deirdre Wilson and Dan Sperber (2012, 50) oppose such views, which they find exemplified in the writings of David Lewis and Paul Grice whose position seems to be that figurative utterances are "generated by systematic departures from their literal meanings." As Wilson and Sperber (2012, 82, see also 11, 23, 77,

79, 83, 124) state, “The very idea that what a speaker says should always (with the possible exception of poetry) be either literal or paraphrasable by means of a literal utterance is an illusion of folk linguistics.”

Wilson and Sperber’s approach to language – the relevance theory of communication – raises basic questions about communication in the world of daily life and further about its relationship to such finite provinces of meaning as humor or fiction. If Wilson and Sperber are right, then one ought not to construct what Schutz calls the world of daily life as first and foremost a world of facts and literal meanings, from which finite provinces of meaning deviate. I will first present Wilson and Sperber’s relevance theory of communication and then demonstrate how this communication theory actually accords quite well (particularly with its emphasis on relevance) with what Schutz meant by communication within the world of daily life. Finally, I will argue that a fuller consideration of relevance, beyond Wilson and Sperber’s account, enables one to situate finite provinces of meaning with respect to the world of daily life.

2 The relevance theory of communication

According to what Wilson and Sperber (2012, 263) describe as the classical code model of communication, a sender conveys a set of observable signals to a receiver that carry an unobservable message that the receiver decodes. Paul Grice thought that in such explicit communication encoding and decoding resulted in “what is said” (Wilson/Sperber 2012, 77), that is, an intuitively clear, common-sense, literal expression of meaning, and that all other communication beyond such literal expression consisted in implicitly communicated inferences, denominated “implicatures” (Wilson/Sperber 2012, 77, 101, 264). However, Wilson and Sperber (2012, 12,77) counter this view by arguing that a combination of decoding and inference occurs to identify “explicatures” that determine the explicit contents of utterances in contrast to “implicatures” that exceed the explicit content and that are totally inferred.

Hence, for example, when a hypothetical character, Lisa, is invited to dinner and states “No thanks, I’ve eaten”, Wilson and Sperber interpret her statement as explicitly communicating that she has already eaten *that evening*, as an explicature. Grice, though, who limits himself to the strictest literal meaning, would consider such an interpretation as developing what is only implicit within Lisa’s response since all she literally states is that she has eaten. However, if one negates Lisa’s statement and expresses that negation as “I’ve not eaten”, it becomes clear that she is not implying by that statement that she has never eaten, but only that she has not eaten that evening, and hence such a negation enables one to

determine that its positive counterpart permits the explicature that she has eaten *already this evening* (Wilson/Sperber 2012, 78).

Instead of using the utterance as a basis for decoding a meaning and then, subsequently, proceeding to implicit inferences, one must already rely on inferences (explicatures) to determine the content of the utterance itself – there is no literal meaning given first but rather a blend of decoding and explicit inferences (explicatures) in conjunction with implicatures. In Wilson and Sperber’s account it is the classical code model and Grice’s acceptance of it that segregate off literal meaning from any inferential contributions to interpretation and that underlie the ideal that language use is governed by a norm of literalism. Once the encoding/decoding theory loses its grip, the widespread opinion that language is governed by a norm of literalness subsides, and inferences can begin to assume greater prominence (Wilson/Sperber 2012, 98). In summary, for Wilson and Sperber (2012, 20–21, 261, 331) an utterance is a piece of evidence about the speaker’s meaning, and the utterance’s words indicate relevant concepts that are encoded and decoded by speaker and listener and that license a variety of inferences (explicatures and implicatures), all of which are taken account of together to determine the speaker’s meaning.

But Wilson and Sperber (2012, 87) inquire further about what directs the process of meaning comprehension (Wilson/Sperber 2012, 87), namely “considerations of relevance” (Wilson/Sperber 2012, 77). “Relevance”, in their technical sense, is a property of inputs to cognitive processes that makes those inputs worth processing principally because they promise greater cognitive benefits than other inputs and require less effort to process (Wilson/Sperber 2012, 62–63). Generally, Wilson and Sperber (2012, 60, 64, 104, 117) adopt the perspective of speakers who take into consideration the relevances (i. e., interests and preferences) of their hearers and who, trying to develop an utterance in accord with the limits of their expressive ability, design their utterance in such a way that it will be relevant to hearers to pay attention to it and to expend the effort to comprehend it. Although the significant relevances seem to be those of the hearer, any time a hearer turns around and offers a reply back to one who has just spoken, she, too, will attend to the relevances of the hearer who had just spoken to her. This focus on hearers does not deny that speakers have their own purposes and interests in performing an utterance. Furthermore, in order to appeal to the hearer’s relevances and communicate successfully, speakers need to pay heed to their encoding and to expectations about the inferences that their hearer, along with his or her decoding, will draw on to understand the inference (Wilson/Sperber 2012, 77). Speakers’ utterances need not encode the contents intended to be conveyed to hearers *in extenso* and unambiguously; instead, “a fragmentary, ambiguous, and loose coding” (Wilson/Sperber 2012, 333) suffices to “indicate a complete

and unequivocal meaning” (Wilson/Sperber 2012, 333), especially given hearers’ ability to assemble an interpretation based on decoding, inferences, and context.

Wilson and Sperber (2012, 108, 201, 301–303, see also 56, 60, 89–90, 104, 117, 207) provide helpful examples. For instance, a speaker desiring to have a rough idea of what time it is, would formulate a question such that it would be of relevance to the hearer to pay attention to it, comprehend it, and provide the information requested. Consequently, the speaker, for instance, walking down the street, would probably ask someone who (on the basis of his clothing, gait, and demeanor) would appear to be responsive and then perhaps might formulate a simple, easily answerable question. The hearer of this question about to turn speaker, grasping the inferences and context of the question, might surmise that it would be relevant for the inquirer to receive an answer that would round off the exact time (4:28 pm) to 4:30. However, when one asks the station-master at what time the afternoon train leaves, he, after interpreting the question’s words, implications, and the context, would develop a response of what he thinks would be of relevance to the inquirer, who would seem to be interested in taking that train and who therefore would need to know the exact time at which the train departs. Hence the station master, in his reply, would not round off the time to 4:30 if the train is departing at 4:28. Likewise, should a woman ask at 3:25 p.m. at what time the next plane leaves for Boston, the male respondent who would reply “7,500 seconds from now”, would not deliver a statement that would be relevant for her to receive and interpret since it would take too much effort to interpret it. The respondent would not be taking account of what would have been relevant to her, even though he might have been able to decipher her relevances had he paid attention to her context, inference, and encoded words – all available when she inquired. Similarly, to a sniffing speaker who requested a “Kleenex”, a hearer, taking account of the encoded words, the context, and the implicit and explicit components needed for interpretation, would provide the speaker with something to blow his nose in. Such a hearer would not assume that the speaker was speaking only literally and would not have accepted any tissue except one with the brand name “Kleenex”. In conclusion, Wilson and Sperber (2012, 77) summarize their relevance theory of communication: “[...] explicatures and implicatures are typically constructed in parallel, via mutual adjustment of interpretive hypotheses guided by considerations of relevance.”

Not only do the words chosen indicate a speaker’s meaning, but also the abundant non-verbal movements that speakers exhibit in most communicative contexts facilitate hearers’ interpretations. For instance, one’s partner might exaggerate the movement of opening the newspaper advertising movies to indicate a desire to see a movie, while one, in response, might stifle a yawn to indicate that she is tired and may not want to go to a movie (Wilson/Sperber 2012, 74). Or

to announce an unwillingness to enter into a discussion that one's partner might request, one might stare at the ceiling or open a book and start reading (Wilson/Sperber 2012, 99). Gestures, facial expressions, voice intonation, and mimicry indicate a speakers' meaning, in the absence of or in addition to verbal expressions and the inferential possibilities that accompany them and that are available to hearers (Wilson/Sperber 2012, 183, 248–249, 333).

In addition, Wilson and Sperber point out the subtle inferential processes at work in the interpretation of speakers' meanings, as for instance, when Lisa's interlocutor infers that Lisa's "I've eaten" indicates that she has already eaten dinner and, because she has done so, she is refusing his invitation to eat. Wilson and Sperber (2012, 67) acknowledge, however, that his attribution of meaning, while conscious, does not depend on an awareness of the process by which he arrived at this attribution or on any expression of a literal meaning by Lisa. Moreover, Wilson and Sperber (2012, 113) repeatedly admit that the intricate logical steps that they lay out in tables explaining hearers' interpretations are not consciously followed by hearers. Instead the inferential processes employed by hearers in the interpretations of speakers' meanings are "largely unconscious" (Wilson/Sperber 2012, 87), and inferential comprehension is "in general an intuitive, unreflective process which takes place below the level of consciousness" (Wilson/Sperber 2012, 267).

A further strength of this relevance theory of communication is its thoroughly intersubjective character. First of all, speakers consider the preferences of their hearers in deciding how strictly or loosely to speak, fashioning what they say in such a way that hearers will find it of relevance to understand speakers and will be able to draw the inferences necessary to understand what was said (Wilson/Sperber 2012, 60, 104, 117). Since hearers, in their turn, become speakers in response to speakers, this process of anticipating hearers' responses and interpreting them ends up being mutual and manifests the intersubjective dynamics that Schutz (1967, 170) describes as an "interlocking of glances", the mutual selection of words to promote mutual understanding (Schutz 1967, 127–128), and the "looking-glass effect" (Schutz 1964a, 247), through which one not only stereotypes another but stereotypes how that other is stereotyping oneself.

Moreover, Wilson and Sperber (2012, 331–332) are quite cognizant of the fragility of intersubjective communication insofar as the exact content of a speaker's utterance is often underdetermined by the utterance alone. Consequently, the hearer's decoding of an utterance provides only a semantic structure still falling short of the speaker's meaning, which is only indicated by the utterance and which requires inferring and drawing on the hearer's knowledge of the context, the interlocutors, their past interaction, and their shared background. Even then, the hearer's interpretation of that utterance is unlikely to coincide exactly with

the meaning of the speaker, who may not have foreseen or intended precisely the implicatures that the hearer may rely on (Wilson/Sperber 2012, 45). Rather than indicating a failure of communication, such limits only show that a looser kind of understanding is possible, resembling the kind of coordination that people experience when strolling together instead of marching in step (Wilson/Sperber 2012, 45–46, see 335–336). Consequently (and in contrast to Grice’s theory), “relevance theory argues that indeterminacy is quite pervasive at both explicit and implicit levels” (Wilson/Sperber 2012, 16).

In this framework, in which the limitations of communication do not lead to its undermining, greater responsibility falls to the hearer, depending on the degree of indeterminacy and the weakness or strength of the inferential aspects of comprehension – and such responsibility becomes much more prominent than it would be in the classical code theory which envisions the coded signal as already encoding exactly the speaker’s meaning (Wilson/Sperber 2012, 13, 16, 37, 69, 71, 77). This necessity of hearer responsibility, shared by both parties to a conversation, “may be just the degree of communication that suits both speaker and hearer” (Wilson/Sperber 2012, 69). Communication, then, becomes a cooperative, communal enterprise in which each partner, at one time hearer and at one time speaker, attempts to build meaning together with the other, seeking to supply whatever may be lacking on the part of one’s interlocutor. The limits of communication invite greater collaboration.

The relevance theory of communication (Wilson/Sperber 2012, 3, 48) takes issue with Paul Grice’s “maxim of truthfulness” that requires that one ought not to say what one believes to be false and that rests upon the sharp dividing line Grice drew between what was strictly said, a literal meaning, and what was conversationally implicated (Wilson/Sperber 2012, 50, 170). In fact, the degree of exact truth and literalness that is required in communication depends upon the contexts of utterances and the inferences drawn, as several examples provided by Wilson and Sperber illustrate. For instance, when asked in a casual conversation where a speaker lives, she might respond with “I live in Paris”, even though she lives in Issy-les Moulineux, a block outside Paris’s city limits. Given her reading of the relevances of her interlocutor and her attempt to take account of those relevances, such a response would be perfectly appropriate, even though literally false (Wilson/Sperber 2012, 89–90). Similarly, a speaker’s utterance “The lecture starts at five p.m.” when spoken to an inquiring student, might convey an acceptable looser meaning, namely that the lecture will start somewhere between 5:00 and 5:10 p.m., but it ought not to have that looser meaning when spoken to a radio engineer preparing to broadcast the lecture. Because of the different relevances of this radio engineer, of which the speaker must take account, a literal response is perfectly appropriate (Wilson/Sperber 2012, 56). Far from it being the case, then,

that truthfulness forms the bedrock of all utterances, Wilson and Sperber (2012, 61) conclude that “It is not just approximations, but all utterances – literal, loose or figurative – that are approached with expectations of relevance rather than truthfulness”, and in some cases (as in the case of the radio engineer) the only way of meeting the expectations of relevance might be to understand the utterance as literally true (Wilson/Sperber 2012, 61). In summary, Wilson and Sperber (2012, 219) conclude:

We reject the maxim of truthfulness and the assumption that non-literalness involves a departure from the norms of communication. We have argued instead that the expectation crucial to communication is one not of literal truthfulness but of optimal relevance, where in order to be optimally relevant, an utterance must convey enough contextual implications to be worth the hearer’s attention, and put the hearer to no unjustifiable effort in obtaining them.¹

Given the belief that language is governed by a norm of literalness from which figurative utterances depart (Wilson/Sperber 2012, 19), Grice and proponents of the classical code theory argue that counterexamples to this thesis, such as lies, jokes, fictions, metaphors, and irony, are violations, suspensions, or overt floutings of the norm of truthfulness (Wilson/Sperber 2012, 49). In contrast to this view, Wilson and Sperber (2012, 62–63) claim that there are other purposes for language besides seeking truth and that even in cases in which hearers are interested in truth, their relevances are such that it is not necessary that utterances be literally true. In fact, given their reliance on an amalgam of explicatures, implicatures, context, and guiding relevances, hearers are quite adept at regularly interpreting speaker’s utterances in which metaphors and figurative elements are interwoven. Wilson and Sperber provide examples in which speakers or authors comment on factual situations with utterances interlaced with figurative meanings, as when a columnist used a metaphor to describe George W. Bush’s administration as having two “bookends”, 9/11 and Katrina (Wilson/Sperber 2012, 119), or as when a mother commented on the messiness her child has produced by calling her a “piglet” – an expression which lends itself to inferences that the mother is not happy with the messiness but also that she nevertheless finds her

1 Grice has a “Maxim of Relation” that requires that speakers be relevant to their hearers and that speakers are supposed to follow, among other normative maxims, in order to promote the conversational rationality that hews to a supermaxim of truthfulness. For Wilson and Sperber, the very act of communicating is shaped first and foremost by relevances insofar as speakers produce utterances that convey a presumption of relevance by which they anticipate guiding their hearer to their meaning. The degree of truthfulness is governed by the relevances of the hearer that a speaker takes account of (Wilson/Sperber 2012, 3–6, 219).

child endearing (Wilson/Sperber 2012, 91). Moreover, studies demonstrate that hearers are able to understand metaphors as rapidly as they do literal counterparts, thereby placing in question the idea that in understanding a metaphor the hearer undertakes the much more time-consuming process of first considering its literal interpretation and then rejecting it as false before proceeding to construct a figurative interpretation (Wilson/Sperber 2012, 19). Hearers' capacity to grasp immediately metaphoric significance seems to contravene the supposition that there is an isolated stratum of literal meaning upon which non-literal meanings build. Instead, Wilson and Sperber (2012, 122) contend that communication takes place along a literal-loose-metaphorical continuum, and, as one approaches the metaphorical end of this continuum, more freedom of interpretation is left to hearers or readers who will understand on the basis of the wide array of implicatures that an utterance allows.

There are two points at which one might raise questions about Wilson and Sperber's account. The first has to do with their response to Grice's analysis of the counterexamples to his maxim that speakers ought to tell the truth: lies, jokes and fiction, and metaphors and ironies. For Grice, lies covertly violate this maxim, jokes and fiction suspend it, and metaphors and ironies overtly flout the maxim. On the one hand, Wilson and Sperber object to construing metaphors and ironies this way since most of our declarative statements are not strictly and literally true and already make use of figurative devices, as we have seen. On the other hand, Wilson and Sperber (2012, 49), contradicting this opposition to literalness, suggest that one could reasonably explain jokes and fictions as suspending something like a ground floor layer that seems to involve direct truth-telling, though they themselves do not undertake such an explanation.

If, though, as they (Wilson/Sperber 2012, 61) earlier suggested, it is "all utterances – literal, loose or figurative – that are approached with expectations of relevance rather than truthfulness", it seems that it would be better not to explain jokes and fictions as suspending a lower stratum governed by expectations of truthfulness. Rather, one could construe the lower level from which jokes and fictions depart as already being determined by the kinds of pragmatic relevances in which truthfulness concerns are embedded. Such a description of the lower level would be more consistent with the overall relevance theory of communication. Then, one could make the case that different, higher-level relevances supervene to shape the sphere of jokes and fictions in distinction to the relevances governing on the ground floor. In other words, I will try to demonstrate how the Schützian account of the world of everyday life might converge with the relevance theory's depiction of utterances on the ground level and then explain how the diverging relevances employed within an alternative finite province of meaning, such as humor, might distinguish such a province from everyday life.

The second question concerns whether Wilson and Sperber overlook the distinctive relevances governing provinces of meaning other than everyday life – a question that emerges in their comments on poetry. They (Wilson/Sperber 2012, 122) carefully analyze the metaphorical statement, “The fog come on little cat feet” from Carl Sandburg’s poem *Fog*. They (Wilson/Sperber 2012, 122) state that this metaphor “weakly implicates an ever-widening array of implications which combine to depict a place, an atmosphere, a mood, achieving a powerful overall effect that varies from reader to reader and reading to reading”. The problem, however, is that Wilson and Sperber (2012, 122) locate such poetry at the metaphorical end of the “literal-loose-metaphorical continuum”. As a consequence, such poetry would be continuous with other uses of metaphor that are utilized within everyday life descriptions, as we have seen above in the cases of calling one’s messy child a “piglet” or of describing the Bush administration as having “bookends”. By contrast, I will argue that poetry constitutes a distinctive finite province of meaning, governed by different aesthetic relevances, over against the world of everyday life, whose relevances correspond to those governing communication according to the relevance theory of communication.

3 Communication according to the relevance theory of communication and in the world of daily life

Alfred Schutz (1962b, 209) is clear that we take not a theoretical interest but a practical interest in the world of everyday life and that we mobilize bodily movements to modify and change its objects and their mutual relationships (Schutz 1962b, 212). These bodily movements, based upon projects aimed at bringing about an intended state of affairs, are known as working acts and they include acts of communication with others (Schutz 1962b, 212). Of course, there are a wide variety of bodily movements that seek to modify objects and relationships in the everyday life world, such as using tools or moving objects, but uttering a sentence to another is among them, and Wilson and Sperber’s description of communication illustrates the practical, purposeful nature of such utterances. Communicators seek to provide physically articulated stimuli to strike their intended audience as relevant enough to be worth processing and to be interpreted in the intended way (Wilson/Sperber 2012, 64). Also, taking account of the perceived preferences of their audiences, they determine how loosely or strictly to speak (Wilson/Sperber

2012, 60, 104, 117). Communication involves practical working acts aimed at providing an utterance whose meaning a hearer will understand.

Furthermore, the working acts aimed at communicating a meaning through an utterance usually function as a sub-project within a broader project. Hence the speaker who forms an utterance to invite Lisa to dinner (to which she responds, “I have already eaten”) is not only interested in communicating with her so that she understands his utterance, but he is also trying to bring it about that Lisa comes to dinner and he may be aiming at even higher-level purposes, such as hoping to share with Lisa at the dinner details regarding a project they are working on together. Similarly, when one asks the station master when the train departs, one must focus on effectively asking the question, but, of course, one’s further purpose may be to take the train – a purpose the station master seems to recognize when he gives the inquirer the exact time of the train’s departure instead of a rounded off version. The station master probably has no idea of any further purpose, perhaps known to the inquirer alone, of why the inquirer wants to ride the train. As Schutz (1962a, 24) observes, the final goal of one’s project welds the sub-projects into a unit, and usually one’s partner knows only the fragment of the actor’s action accessible to him. What is essential is to see how pragmatic purposes shape the sub-project of effectively communicating a meaning and how it is possible to be pursuing at the same time an even higher-level pragmatic project that gives further meaning to the lower-level project of communicating one’s meaning effectively. Wilson and Sperber seem to recognize this embedding of sub-act projects within projects insofar as they recognize that speakers aim at more by their utterances than simply making themselves understood; indeed, part of making oneself understood involves appreciating such longer-range projects, as when, for instance, the speaker informs the radio engineers of the exact time of the lecture.

Schutz’s theory of “relevances” is more comprehensive than Wilson and Sperber’s. For Schutz (2011, 107), topical relevances consist in those interests and values that prompt one to single out a topic from an unstructured field, and such a topic then becomes relevant (Schutz 2011, 113). Interpretative relevances consist in those parts of one’s stock of knowledge, those concepts, typifications, and schemes of interpretation valuable for subsuming an object under them, and, correlatively, those aspects of the object which are of relevance for efforts to interpret it (Schutz 2011, 121–122). Finally, motivational relevances consist in the guiding purposes that one seeks to realize in the future by one’s action (in-order-to motives) or one’s backlog of past experiences that influence one from the past (Schutz 1962b, 218, 220). Furthermore, a person’s relevance system is more or less organized and hierarchized. Wilson and Sperber’s notion of relevances seems perfectly compatible with Schutz’s systematic approach insofar as

speakers produce an utterance with an eye to making it relevant for hearers to pay attention to it and to expend the effort to comprehend it. Speakers, then, seek: to appeal to the interests of the hearer so that their utterance will become a focus or topic; to present their utterance in such a way that what is said will be able to be subsumed under the hearer's interpretive schemes; and, in the light of their own purposes, to ensure that their utterance will evoke a correlative in-order-to motive in the hearer – at least to understand what is said and perhaps then to adopt future-oriented in-order-to motive that speakers want them to undertake (e. g., to provide a response). Consequently, all the diverse relevances that Schutz catalogues can be at play in the interaction between speaker and hearer, as Wilson and Sperber depict it.

Communication in everyday life according to Schutz resembles that portrayed by the relevance theory of communication in various aspects. Schutz (1967, 116–118), whose view of working includes a variety of physical movements, allows, as do Wilson and Sperber, that gestures, voice inflection, and facial expressions accompany, or even substitute for, oral communication, and even reflexes or spontaneous conduct without any purpose (“expressive movements”), of which a speaker may not be aware, form part of the interpretable field accessible to the recipient of communication.

In addition, Schutz's theory emphasizes the importance of typifications, that is, the pre-discursive classifications of things in terms of being “trees”, “human beings”, “dogs”, etc., which are built up over a lifetime and which make it possible for us to anticipate how present experiences will unfold and to cope effectively with reality. By the progressive development of typifications, we effect the Weberian notion of rationalization, that is, we transform an “uncontrollable and unintelligible world into an organization which we can understand and therefore master” (Schutz 1964b, 71). Beyond enabling classification, typifications also include the approved folkways of societies and in-groups, learned habits, physical skills, language patterns and usages, and recipes for action. These many versions of typifying activities often depend upon passive syntheses by which one, beneath the level of conscious deliberation, encounters objects and situations and readily assimilates them with related, previously acquired typifications as part of one's response to such objects or situations (though no one object or situation is exactly like another) (Schutz/Luckmann 1973, 108, 146).

If one considers the kind of intersubjective interactions that the relevance theory of communication presents, it is clear that such interactions are shot through with typifications. For instance, in addition to the typical concepts and words in which we encode or decode meanings, one must also be at some level aware of how language is typically used, as when Lisa states she has eaten in response to a dinner invitation. Further, speakers must typify hearers

in determining what type (itself a typification) of utterance will attract their attention and be comprehensible to them, what types of inferences such hearers/interpreters might resort to, and what supplementation such hearers/interpreters can typically provide to fill out the speakers' indeterminate meanings. For instance, the responses one gives to query about where she lives (e. g., Paris) from a casual acquaintance or about what time a lecture begins when posed by a radio engineer will be more or less exact, depending on the speaker's typification of the inquirer and of what the inquirer wants, needs, or should be entitled to. Hence, the speaker basing herself on typifications of the inquirer and what would be appropriate for him (e. g., more detailed answers might be inappropriate if one thinks the other is pursuing a relationship with her that she does not want) might consider the vague answer ("Paris") appropriate even though she lives a block outside Paris. The speaker informing the radio engineer of the exact time of the lecture would be based on typifications of radio engineers and the precision that their role often demands. Moreover, typifications are constitutive of the contexts of utterances, as occurs when the station master, himself playing a typical role, provides the exact time of a train departure because he typifies the inquirer about the time as desiring to ride the train and needing exact information. Typically a hearer will have a hard time in determining the time for a plane departure and may not even seek to determine it, when a speaker mis-typifies her (as if she were a calculating machine) by stating that the plane will leave in 7,500 seconds. Bodily movements, gestures, and intonations have typical significances, with staring at the ceiling, for instance, indicating indifference to a partner's request. Even the process of lying, which Grice considers to be a violation of the maxim of truthfulness characterizing every utterance, might be better understood as applicable or not in typical situations. For instance, a speaker asking a uniformed station-master about the time of a departing train might typically expect a truthful response, but should one ask the station master about whether he has ever carried on an adulterous relationship, one might typically anticipate that the relevance of this question to the station master is quite low and that it might be in his interest to lie or even refuse to answer the question. In such a case, one does not ponder how to shape one's utterance to appeal to one's listener, but more basically how the expression of the utterance *at all* will be likely to intersect with the listener's relevances and whether the question should even be asked.

In addition, typifications for Schutz are inherently vague. The typifications built up within one's stock of knowledge are to a degree indeterminate as can be seen when we project an action into the future, anticipating the future events to result merely in their typicality and knowing full well that whatever will result will never be exactly the same as previously realized projects. Thus the student sets to work with a vague but typical idea of writing a final term paper, but how

this paper turns out will never be exactly the same as other term papers or even exactly the same as what the student anticipated in projecting the term paper (Schutz 1964c, 286–287). Furthermore, every objectively meaningful term always carries with it subjective, including cultural, connotations insofar as any speaker associates with any sign “a certain meaning having its origin in the unique quality of the experiences in which he once learned to use the sign” (Schutz 1967, 124). Hence, what Goethe means by the “demonic” can only be understood by considering his works as a whole and the conditions of his biography (Schutz 1967, 124–125). While this understanding of meaning highlights precisely the fragility and limitations involved in communication, Schutz (1967, 99), like Wilson and Sperber, concludes not that mutual understanding is impossible, but only that the meaning one gives to another’s utterance cannot be precisely the same as the meaning the other intends. Wilson and Sperber (2012, 335) provide an excellent example of such ambiguity when they depict a watchmaker responding to a customer’s request to have her watch repaired by stating, “That will take some time”. Though the customer may have an expectation for the quickest repair possible and the watchmaker may be trying to dampen hopes for a very rapid repair, they both understand each other more or less. Their different histories of experience, biographies, and present relevances underlie the divergent, not exactly coinciding meanings they may be deriving from the typical, but vague expression “some time” (Wilson/Sperber 2012, 335).

A final area in which the Schutzian and relevance theory notions of communication converge has to do with the place of truthfulness in relation to relevance. Wilson and Sperber (2012, 61) rightly comment on how utterances “are approached with expectations of relevance rather than truthfulness.” But this embedding of truthfulness within the framework of relevance does not imply the extreme conclusion that truth itself is irrelevant since often one might need to understand an utterance as literally true, as was patent in the examples of telling the radio engineers that the lecture would begin at 5 p.m. or the potential train traveler that the train departs at 4:28. Utterances can also be understood as giving approximations to the truth, as when one tells the student that the lecture begins at 5 p.m. or when one claims to live in Paris even though her house is located one block outside of it. In virtually all the cases Wilson and Sperber discuss, the factual state of affairs is not irrelevant, but the degree of accuracy and the mode of expressing it are determined by the relevances of the hearer to whom an utterance is directed. Similarly, when Schutz (1962b, 208–209) asserts that the world of everyday life is guided by our practical interest in dominating it by working within and upon the world, modifying objects and relationships, he too affirms a context in which the concerns of pragmatic mastery dominate. However, as seems to be the case with the linguistic relevance theory, it seems hard to imagine how

one could ever navigate such a world successfully by disregarding completely the truth about the facts on which one operates, even though exact precision about those facts would certainly not be required of every or even many utterances expressed and interpreted by everyday agents.

4 Finite provinces of meaning and the relevance theory

Schutz, in contrast to Wilson and Sperber, would not concur that in every utterance truthfulness would be subordinated to relevance since for Schutz the pragmatic motive, which dominates in the world of everyday life and subordinates truthfulness to relevance, does not govern the world of scientific theory whose prevailing relevance is “not to master the world but to observe and possibly understand it” (Schutz 1962b, 245) and whose guidelines require different relevances than those of everyday life (Schutz 1962b, 246). For Schutz, the scientist is interested in determining what is true regardless of its impact on his or her everyday relevances, and hence within the scientific sphere of meaning one ought not, for instance, to confabulate research conclusions for personal profit. Schutz (1962b, 245), however, recognizes that in everyday life there are theoretical moments even in the pursuit of practical purposes, as when I ponder what will be the best way to convince another, and he calls such hybrid experiences “enclaves”. Likewise, one can imagine enclaves within scientific theory in which non-literal, figurative language might predominate. And, of course, even within science there is the basic communicative level on which one will always shape one’s utterances taking account of one’s hearer’s relevances. It is just that this stratum of communication is directed by different higher-level relevance structures, “measured by another yardstick” (Schutz 1962b, 258), depending on whether one takes up the attitude of achieving practical projects in everyday life or seeks to establish what is true within scientific theory. Perhaps, the Gricean view that emphasizes literal truth as foundational may have unwittingly attributed to everyday actors the relevances prevailing in the scientific framework of philosopher-linguists, as if everyday actors comport themselves as scientists.

Virtually all the examples of utterances that Wilson and Sperber present in *Relevance and Meaning* pertain to the pragmatic world of everyday life insofar as they try to achieve through bodily actions (e.g. speech) the practical mastery of objects and relationships. That is, they concern: finding out where someone lives, determining the time of the train’s departure, arriving on time for one’s plane, acquiring a Kleenex, inviting someone to dinner, informing people when

a lecture (to be heard or broadcast) begins, or expressing disapproval of one's child's messiness. Wilson and Sperber rightly understand that at a most basic level the very articulation of an utterance involves a purposeful action in which one seeks to communicate by expressing oneself in such a way as to attract the attention of a hearer without overburdening her interpretation of it. However, the base-level project of merely issuing an utterance that will be received and understood is often only a sub-act in a longer-range project. Wilson and Sperber rightly see that such utterances serve higher-level purposes, and, in fact, taking account of longer-range purposes improves the understanding of basic-level utterances. For instance, when a radio engineer requests what time the lecture is supposed to occur and when the interpreter/speaker (assuming she knows that the questioner is a radio engineer) provides an answer (5:00 p.m.), the speaker intends the hearer to understand that response to be conveying an exact time because the speaker recognizes the purpose behind the engineer's request, namely that he wishes to broadcast the lecture. Not only is a speaker's constructing an utterance that will attract her hearer's attention a matter of using an understandable vocabulary and sentence structure which the hearer will find easily understandable and appealing. But also the utterance is much more likely to find an adequate reception by the hearer to the extent that the speaker understands the broader purposes for which the hearer will use the information provided through the utterance. In this case, there may be other longer-range purposes at stake (e. g., why the engineer is broadcasting the lecture), of which the speaker does not need to know.

In seeking to understand fuller the broader context within which an utterance occurs, one needs to appreciate not only the immediate purposes of the hearer, but also the fact that utterances belong to what Schutz calls a finite province of meaning, such as the pragmatic world of everyday life in which speakers and hearers are seeking pragmatic mastery, as opposed to the province of scientific theory bent on understanding the world through evidence-based claims.

Consequently, the question arises then whether it is appropriate to locate Carl Sandburg's poem *Fog* at the end of the metaphorical pole of a literal-loose-metaphorical continuum that includes the majority of the other utterances that are discussed in *Meaning and Relevance* and that serve everyday life pragmatic purposes. Wilson and Sperber (2012, 122) rightly capture some of the distinctive features of Sandburg's poem, which "weakly implicates an ever-widening array of implications which combine to depict a place, an atmosphere, a mood, achieving overall effect that varies from reader to reader and reading to reading". In Schutz's view, one undertakes a distinctive kind of *epoché*, that is, a comprehensive attitude with different relevances, when one reads or listens to poetry (1962b: 230–231). One is no longer pragmatically mastering the details of daily life, but interested in enjoying the use of language itself, paying attention to the

effect of words and structures in their interaction, and allowing a poetic or literary arrangement to evoke images and invite aesthetic appreciation. In reading poetry, like other provinces of meaning that Schutz (1962b: 230–231) mentions, such as the provinces of drama, religion, phantasy, dreaming, or child play, one enters a realm of meaning that is much like play, in which one sidelines efforts at pragmatic mastery and relishes a relaxed tension of consciousness.

5 Conclusion

To conclude, the relevance theory of communication has it just right when placing emphasis on the relevances of the hearer to which the speaker appeals, so that her utterance will be received and not overburden the hearer. Furthermore, this theory rightly attends to the inferential (explicatures and implicatures) and contextual processes that the code model does not sufficiently recognize and that are crucial to meaning communication and interpretation. This broadening perspective that takes account of the inferential and contextual environment necessary for communication and interpretation includes attention to the motivational relevances that Schutz describes, particularly “in-order-to motives”. In fact, the relevance theory converges with the Schutsonian understanding of communication, within which the relevance-based construction of an utterance is usually a sub-step within a more encompassing action. However, following the trajectory of the relevance theory’s attention to context, one ought to take account of finite provinces of meaning that also play a role in communication and interpretation, one of which finite provinces is the everyday life setting to which most of Wilson and Sperber’s examples pertain. By acknowledging this province of meaning, one could proceed to examine how provinces of meaning like poetry, literature, and humor affect the significance of the utterances taking place within them. Consistent with the relevance theory’s stress on the relevances involved in basic communication, these other provinces can be distinguished by their guiding relevances that differ from the focus on pragmatic mastery and that aim instead at a kind of enjoyment and play that relieve one from everyday seriousness, not denying however the enclaves in everyday life that foreshadow the full-blown non-pragmatic provinces.

Although the realization of the importance of provinces of meaning supplements the relevance theory’s account of base-level communication and interpretation, the theory makes it possible to conceive aright the province of everyday life, from which the non-pragmatic provinces of meaning, such as the province of humor we began with, diverge. The province of everyday life is not constituted by

speakers and hearers issuing and interpreting merely literal, factual statements, as the code theory was wont to believe. Instead, Wilson and Sperber demonstrate how questions of truth are embedded in the pragmatic relevances that shape everyday life communication, in such a way that truth is not disregarded but is made available within the limits and to the degree that those relevances prescribe. The relevance theory converges with Schutz's understanding of the finite province of meaning of everyday life, whose agents cannot do without the knowledge of objects they pragmatically impact. But such agents should not be confounded with scientists, who inhabit a different province of meaning in which divergent relevances prevail.

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Bridging Rhetoric and Pragmatics with Relevance Theory

Abstract: In this chapter, I bridge rhetoric and pragmatics, both of which concern themselves with language-in-use and meaning-making beyond formal syntax and semantics. Previous efforts to link these fields have failed, but Sperber and Wilson’s relevance theory (RT), an approach to experimental pragmatics grounded in cognitive science, offers the bridge. I begin by reviewing Gricean pragmatics and its incompatibility with rhetoric and cognitive science. I then sketch RT, but importantly, I identify revisions to RT that make it a powerful tool for rhetorical analysis, a cognitive pragmatic rhetorical (CPR) theory. CPR theory strengthens RT by clarifying what it means to be relevant – and irrelevant – in relevance-theoretic terms. Meanwhile, it provides rhetoric a set of principles for its functioning grounded in cognitive science. I conclude with sample CPR-theoretic analyses.

1 Introduction¹

Rhetoric and pragmatics were born together in the Athens of the fifth century BCE. In their history of early pragmatics, Nerlich and Clarke (1996) found its roots in Protagoras’ identification of the moods or modes of speech (“statement, question and imperative”) and in Aristotle’s *Rhetoric* (2007). Protagoras was one of the sophists, philosophers credited with innovation in the teaching of rhetoric in Athens at the time. Contemporary pragmatics focuses on ascribing meaning to utterances, using context to enrich literal or decoded meaning. Rhetoricians are deeply interested in the work that words do, particularly the work of persuasion, regardless of what their literal meaning might be.

Pragmatics “has to do with all context-dependent aspects of meaning ‘systematically abstracted away from in the pure semantics of logical form’” (Nerlich/Clarke 1996, quoting Horn 1992). To the extent that pragmatic theories extend

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language study away from code models – the semantics of logical form – they are likely compatible with rhetoric (Bazerman 1988). Indeed, many theorists in rhetoric (Berkenkotter/Huckin 1994; Bhatia 1993), argumentation theory (van Eemeren/Grootendorst 2004; Jacobs 2000), and critical theory (Butler 1997) have employed concepts from pragmatics. As I explain below, though, previous efforts to bridge pragmatics and rhetorical theory, characterizing them as *fiancé(e)s* (Dascal/Gross 1999) or as *antistrophoi* (Liu/Zhu 2011), have failed, in part because of the continued focus in many theories of pragmatics on decoding utterances.

My proposed solution may seem ironic: The relevance theory of pragmatics (Sperber/Wilson 1995) has been regarded with skepticism by many contemporary pragmatists, and relevance theory's proponents, Sperber and Wilson, have regarded rhetoric with skepticism. This article argues, nevertheless, that relevance theory (RT) should be the bridge between these fields. With the exception of Oswald (2007; 2011; 2016) and Larson (2016), however, no one has used RT to link them. What's more, some modifications of RT proposed by other scholars need to be synthesized into the model for it to function as a theory of rhetoric *and* pragmatics.

The result – which I call cognitive pragmatic rhetorical (CPR) theory – provides a framework for communication and rhetorical analysis that is grounded in cognitive science and its insights about communication embodied in part in RT, and it extends RT in ways that explain the production of utterances and clarify what it means to be “relevant” in relevance-theoretic terms. CPR theory, like RT, posits communicative production and interpretation as functions of relevance, the cognitive tendency of humans to seek out the greatest cognitive effects (desired changes in cognitive environment) with the least cognitive effort. CPR represents a practical, non-reductionist framework to analyze meaning – that is, it looks at the (hermeneutical) dynamics of the linguistic and cognitive, semantic and pragmatic, social and psychological, etc., without simplistic reduction to one or the other. Like RT, CPR provides tools for interpretation and analysis and a framework for predictions that can be tested empirically. If it is correct, it can bridge the rhetorical tradition, cognitive science, and philosophy of language.

This chapter takes the following form: After providing three brief, constructed, illustrative examples of language use, I begin by reviewing a dominant model of contemporary pragmatics that I will call *classical pragmatics* and its incompatibility with rhetoric and cognitive science. I then sketch RT and revisions to it that make it a powerful tool for rhetorical analysis. Finally, I provide CPR-theoretic analyses of these illustrative examples as well as an attested (though possibly apocryphal) rhetorical performance.

2 Illustrative examples

Imagine three communicative exchanges.² In the first, assume that Cyrille and Marc are French siblings, that Marc is seeking the pen of their common aunt, and Cyrille intends to inform him that the pen in question is on the nearby desk:

- (1) *Marc*: Où est la plume de notre tante?
‘Where is our aunt’s pen?’
- (2) *Cyrille*: La plume de notre tante est sur le bureau.
‘Our aunt’s pen is on the desk.’

Consider a second exchange: Laura, Carlos, and Maria are American siblings, all in the drawing room at their aunt’s home.

- (3) *Carlos*: Where is Aunt Luisa’s Mont Blanc pen?

Carlos is a little pompous and exaggerates the French pronunciation of “Mont Blanc” ([mõ blã]), despite the fact that he speaks no French himself. Laura and Maria both speak French.

- (4) *Laura*: La plume de ma tante est sur le bureau.

Maria snickers.

Consider the third exchange: Note first that (4) has reputedly appeared in low-quality commercial language phrasebooks and has been described as practically useless (Wikipedia n.d.). Bill, a linguist, and Anne, a teacher of German, are professionally familiar with these facts, and each expects the other is as well. Note, too, that Anne likes to make a joke and also likes folks to think she is clever.

- (5) *Bill*: What do you think of Smith’s new German textbook?
- (6) *Anne*: Où est la plume de ma tante.

Each of the utterances (2), (4), and (6) is human communication, what Wilson and Sperber (2012, 87) describe as “a more or less controlled modification by the

² The reader may find these examples, and perhaps this entire chapter, more tolerable after viewing comedian Eddie Izzard’s ‘bit’ on these sentences: <https://www.youtube.com/watch?v=qnjx-afaOGbQ>

communicator of the audience's mental landscape – his *cognitive environment* [...] – achieved in an intentional and overt way". Thus, every human communication is an attempt by the Speaker³ to change the Hearer's beliefs about the world, to alter his emotional state, to redirect his goals, or most likely some combination of these three. Note that this inclusion of goals and emotions in people's cognitive environments is not consistent with Wilson and Sperber's usage, a matter I will take up below.

Whether a given communicative performance or exchange can be called "rhetoric" depends on the scope we give to that term. But certainly the paradigmatic instances of rhetoric – oratory and address in the public sphere – are instances of communication in the terms defined above, and any theory explaining the former should not be inconsistent with theories addressing the latter.

Below, I review some basic principles of pragmatics and the relevance theory of Sperber and Wilson. I then describe the extension of Sperber and Wilson by Straßheim, founded in the concepts of *relevance* and *typification* from Alfred Schutz (Schutz 1964; 1966; 1973). Finally, I propose CPR theory's conceptions of the cognitive environment and imputed cognitive environment and briefly introduce the CPR-theoretic production and comprehension/interpretation procedures. In each case, I will refer to the three communicative exchanges above.

3 Pragmatics, cognitive science, and relevance

The prevailing theories of language-in-use owe much to work in the philosophy of language by Austin (1975), Searle (1970; 1979), and Grice (1989). Taken together, these scholars can be viewed as the founders of what I will refer to here as *classical pragmatics*⁴; much of the research in that field is grounded in these works or at least sets itself up in response to them. *Classical pragmatics* explores the notion that meaning cannot be found merely by decoding sentences based on the semantics of words and the manner of their combination (syntax). Rather, scholars of pragmatics assert that meaning must be derived from the application of inference to the products of decoding.

³ I employ the practice of referring to the hypothetical "Speaker" (or "Writer") and "Hearer" (or "Reader") with an initial capital, using feminine pronouns for the former (Speaker=she) and masculine pronouns for the latter (Hearer=he).

⁴ Not to be confused with Aristotle and Protagoras, mentioned above as originators of some pragmatic ideas in the classical era in Greece.

Pragmatics generally contrasts the *content of a sentence* (the domains of syntax and semantics) with the *context of an utterance* (the domain of pragmatics). Refer back to the illustrative exchanges above. In (1) and (2), Marc can interpret Cyrille's response in (2) simply by decoding⁵ it – applying a compositional analysis to the syntax and semantics of the sentence. In (3) and (4), assuming Aunt Luisa's pen is on the nearby desk, syntax/semantics would say (4) is *literally* correct in French. It can be decoded – though not by Carlos – to provide the answer to the question in (3). But pragmatics asks what Laura is doing here: why she is responding in a language that Carlos does not understand.

In (5) and (6), Bill can interpret Anne's response in (6) *only* by reference to the context; in fact, no effort to decode Anne's utterance will yield useful information. Even assuming Bill speaks French, the propositional content of (6) does nothing to answer his question. In fact, decoding the sentence using syntax and semantics is a waste of his interpretive effort. Nevertheless, the context and Bill and Anne's knowledge of each other and their fields is likely to guide him to a correct interpretation – that the text is superficial and useless – perhaps as soon as he hears the first couple words.

Pragmatics, then, busies itself with going beyond code models of language, usually by application of rational (but not logical or demonstrative) inference to utterances in context in order to determine the Speaker's intention. According to Grice (1989), an utterance may *encode* a speaker's meaning, or it may merely *be evidence* of her meaning. For Grice (1989, 26), “talk exchanges are characteristically, to some degree at least, cooperative efforts – [with] a common purpose or set of purposes, or at least a mutually accepted direction”. Grice famously offered his cooperative principle (CP): “Make your conversational contribution such as is required, at the stage at which it occurs, by the accepted purpose or direction of the talk exchange in which you are engaged” (Grice 1989, 26).

The conclusions that the Hearer draws from the inferential process are what Grice calls “implicatures”. These are conclusions that the Hearer draws about what the Speaker “implied, suggested, [or] meant” that are different from what the Speaker “said”, which is “closely related to the conventional meaning of the words [...] uttered” – that is, the decoded sentence (Grice 1989, 24–25).

Classical pragmatics is focused on decoding and on rational inferences about meaning implicatures. Common to the theories of Searle (1970; 1979) and Grice (1989) is the principle that the Hearer should first decode the literal meaning, or “what is said”, and then use inference to derive the implicatures only where

⁵ Let's ignore for the moment that he must resolve the reference *our* as some person and *our aunt's pen* as a particular possession of that person.

the decoded meaning would fail to satisfy the CP. That is, they assume that the meaning of the sentence as decoded is close to the meaning the Speaker intended and that inference bridges the gap. For example, when Bill attempts to interpret Anne's response to his question about the textbook – "Où est la plume de ma tante" (6) – he would first decode it (assuming he understands French) and then, after concluding that the decoded meaning violates the CP, he would apply inference to her utterance, using it merely as evidence of her meaning.

Two things are important to note: First, for many theorists of pragmatics in the classical mode, implicatures are propositions about the world. That is, the goal of inferential interpretation by the Hearer is that he will believe a larger set of (hopefully true) propositions about the world. Thus, after the exchange in which Bill asks "What do you think of Smith's new German textbook?" (5) and Anne answers "Où est la plume de ma tante" (6), Bill could entertain a thought or *representation* with the content in (7), or at least the content in (8).

(7) 'Smith's new German textbook is superficial and useless.'

(8) 'Anne thinks Smith's new German textbook is superficial and useless.'

As Dascal and Gross (1999) and Liu and Zhu (2011) explain, rhetoric is concerned with the *perlocutionary effects* (at least persuasive, but perhaps others) of communication, not merely *propositional content*. In fairness, Grice (1989, 28) did not entirely ignore this issue, writing "this specification is, of course, too narrow, and the scheme needs to be generalized to allow for such general purposes as influencing or directing the actions of others". It is unclear, though, how the CP could work to do this.

Second, with few exceptions, classical pragmatics focuses on interpretation, and not production, of utterances. Rhetoric concerns itself very deeply with the effective means of production; it is "an ability, in each particular case, to see the available means of persuasion" (*On Rhetoric* 1.2.1, Aristotle 2007, 37).

Consequently, classical pragmatics has proven somewhat difficult to reconcile with rhetoric.

Dascal and Gross (1999, 108) proposed a "marriage" of pragmatics and rhetoric. They advocated for what they described as a "cognitive theory of rhetoric", but what I would refer to as a *rationalist* theory of rhetoric. They identified several reasons why other scholars might not hold their peace at the nuptials of these two fields: First among them, Gricean pragmatics is dialogic. Grice discusses two interlocutors, the Speaker and the Hearer, while rhetoric must account for a Speaker with an audience or a Writer composing a text perhaps without a clear awareness who her audience is. Dascal and Gross address this concern by noting that oratory involves a "continuous interchange" between speaker and audience (Dascal/Gross 1999, 109). A second reason for caution: Grice's Cooperative Princi-

ple (CP) does not seem to permit misdirection, a common tool in communication and one commonly analyzed by rhetoricians. Thus Dascal and Gross proposed modifying the CP so that it states that only the *appearance* of cooperation must be maintained.

Liu and Zhu (2011) asserted that Dascal and Gross misdiagnosed a mismatch between pragmatics and rhetoric. In their view, Dascal and Gross failed to note the mismatch: that pragmatics has “foundational principles,” such as the CP, but that rhetoric is identified by “modus operandi” such as *pathos*, *êthos*, and style (Liu/Zhu 2011, 3408). Liu and Zhu’s observation echoes Plato’s Socrates, who suggested that rhetoric was not a science or art, not a systematized body of knowledge, but a “knack acquired by routine” (Plato 2004, 463b, p. 30).⁶ Liu and Zhu (2011) proposed rhetoric and pragmatics as *antistrophoi* – complementary disciplines, but not united in marriage – echoing Aristotle’s juxtaposition of rhetoric and dialectics under the same moniker. Consequently, they saw the CP and Grice’s maxims as requiring *antistrophoi* or complements within rhetoric. They proposed the first of these – what they called the “foundational principle in rhetoric” – the Non-Cooperative Principle or NCP. It takes roughly this form: Always proceed or respond without assuming that the other party is being cooperative.

It is difficult, however, to see the NCP as *antistrophos* to the CP. Instead, they appear to be *antitheses*. Grice’s entire system relies upon the CP for any coherence that it achieves, and yet Dascal and Gross’s approach and the NCP entirely undermine it. Resisting an assumption about whether a particular fact about a talk interaction is true is hardly a foundational principle. These efforts fail satisfactorily to bridge pragmatics and rhetoric.

Classical pragmatics has some issues with contemporary cognitive science as well. Contemporary cognitive science suggests that humans (like many other animals) do not routinely engage in the kind of rational inference posited by the founders of classical pragmatics and that their inferences are governed by other forces, including cognitive biases or heuristics and emotions. By “cognitive science,” note first that for me *cognition* means more than demonstrative inference or even rational inference grounded in probabilities and the like: It includes other functions of the mind, such as emotions and cognitive biases (cf. Oswald 2016; Piskorska 2016). Where cognitive science is concerned, I do not mean the first-wave artificial-intelligence models, which viewed the brain as a sort of computer, operating via logical or demonstrative inference on symbols (Newell/Simon 1976). Nor am I firmly entrenched in the camp of any of the subsequent

⁶ Not all translations of the *Gorgias* give “knack” here. Cf. Nichols’ translation in Plato (1998, 46), which is “experience”.

models of cognition, including connectionism (Churchland 1989), embedded/embodied cognition (Clark 1997), or dynamical systems theory (Juarrero 1999). I also do not believe it is necessary, when working with Sperber and Wilson's RT, to accept Sperber and Wilson's (2002) notions of massive modularity, under which there are separate modules for "mind-reading" (theory of mind), linguistic communication, non-linguistic communication, argumentation, etc. Rather, I'm committed generally to the principle embraced by all these models that there is a systematicity to human cognition that is worth exploring and understanding and that a theory of communication, whether RT or the one proposed in this chapter, should be consistent with empirical data.

According to Gigerenzer and Brighton (2009, 109), the human mind evolved as a toolbox, a set of capacities, to survive in certain environments. Among the important implements in our cognitive toolboxes are *heuristics*, "fast and frugal" techniques for drawing conclusions or inferences about our environments that are not necessarily rational in any substantive sense. They identified several key heuristics, including the recognition heuristic (if one of two alternatives is recognized, it is preferred) and the fluency heuristic (if two alternatives are recognized, but one is recognized more quickly, it is preferred). Such efforts to minimize cognitive effort are outgrowths of what Simon (1990) called "bounded rationality" – there is only so much cognitive effort that a brain can bring to bear on survival problems. Heuristics function as a kind of "procedural rationality" or "ecological rationality", provided they are used in the environments in which they evolved. Heuristics do not always work well, of course, and Kahneman (2003) has pointed to some of the poor results that can arise from them.

Heuristic, procedural, or ecological rationality stands in contrast to substantive rationality and "the canonical definition of rational inference as weighting and adding of all information (as long as it is free)" (Gigerenzer/Brighton 2009, 113). Clark (1997) referred to this as "compositional analysis" – conscious problem-solving that applies computation to the complete set of available evidence. Of course, obtaining "all information" is never free, and neither is the effort required to process it (Gigerenzer/Brighton 2009). These heuristics predate and frequently supervene decision-making in the substantively rational, inferential mold (Haidt 2001; Mercier/Sperber 2011), and there is ample evidence of "automatic" cognition regarding goals, evaluations, and emotions (Bargh et al. 1999).

In sum, some models of classical pragmatics rely upon a rationalist assumption about human conduct, that humans use substantively rational inference to interpret communication and that the object of their interpretations is propositional content. But human language and cognition are subject to a wide variety of heuristics and cognitive biases that suggest substantive rationality does not govern utterance interpretation.

4 Relevance-theoretic pragmatics

In 1986, linguist Deirdre Wilson and anthropologist and cognitive scientist Dan Sperber published the first edition of *Relevance: Communication & Cognition*; the second edition followed in 1995 (Sperber/Wilson 1995). Since its introduction, Sperber and Wilson's relevance theory has become a mainstream theory in linguistic pragmatics, particularly in experimental pragmatics, which employs empirical methods rather than philosophical speculation for pragmatic theory building.⁷

I contend that Sperber and Wilson's relevance theory (RT) provides a considerably more *rhetorical* model of pragmatics than classical pragmatics, and it addresses some of the concerns with classical pragmatics. RT has nevertheless found little welcome in the field of rhetoric. This may be due in part to antipathy expressed by Sperber and Wilson toward the rhetorical tradition. For example, in Sperber and Cummins (2007) Sperber wrote in a footnote crediting influences: "I will name no rhetoricians [sic] here, for it was precisely to free myself from their influence that I undertook this work." Harris (2007, 359), writing in a rhetoric journal, quoted Sperber and Wilson as saying "If relevance theory is right, then [...] rhetoric has no subject matter to study, or to teach." Nevertheless, I claim that RT goes far toward bridging the gap between rhetoric and pragmatics.

Sperber and Wilson proposed relevance theory (RT) as a cognitive theory of language-in-use. Sperber and Wilson (1995) claimed that the effort to interpret an utterance is balanced against its positive cognitive effects. The more positive cognitive effects a stimulus has, the more relevant it is; the more difficult to process a stimulus is, the less relevant. It is this relationship that Sperber and Wilson (1995) refer to as "relevance" in the context of human communication: The greater the utility and the lesser the effort to interpret, the greater the relevance (see also Wilson/Sperber 2004; 2012). They argued that "the search for relevance is a basic feature of human cognition, which communicators may exploit" (Wilson/Sperber 2004, 608).

According to Wilson and Sperber (2004, 607), "[t]he central claim of relevance theory is that the expectations of relevance raised by an utterance are precise and predictable enough to guide the hearer toward the speaker's meaning". "The universal cognitive tendency to maximize relevance makes it possible (to some extent) to predict and manipulate the mental states of others" (Wilson/Sperber 2004, 611). In other words, it is not necessary to assume or accept Grice's Cooperative Principle. In fact, Sperber and Wilson (1995) expended considerable effort to show that Grice's CP is neither a necessary nor a sufficient condition for communication and interpretation.

⁷ See Yus (2017) for a massive, thematically categorized bibliography of citing works.

Wilson and Sperber have developed their theory more fully in extended works on the subject (Sperber/Wilson 1995; Wilson/Sperber 2012). An accessible and useful summary of RT appears in Wilson and Sperber (2004). And Padilla Cruz (2016) offers a recent collection assessing the legacy of RT and its potential future, including some of the modifications I discuss below. But central here are several concepts that I will discuss briefly.

Wilson and Sperber (2004, 612) proposed that a Hearer confronted with an ostensive communicative stimulus⁸ employs the relevance-theoretic comprehension (or interpretation) procedure:

- (9) Follow a path of least effort in computing cognitive effects: Test interpretive hypotheses (disambiguations, reference resolutions, implicatures, etc.) in order of accessibility.
- (10) Stop when your expectations of relevance are satisfied (or abandoned).

Note that for Wilson and Sperber, the effect side of the relevance calculation, represented by “cognitive effects” in the comprehension procedure, is measured by an increase in the Hearer’s store of assumptions – that is, by the true representations about the world that can be stated in propositional form and that the Hearer can infer from the Speaker’s utterance, though not all RT theorists agree that increasing the Hearer’s store of assumptions is the only purpose of communication (e. g., Piskorska 2016, 293). This constraint on RT ignores the fact, taken up below, that some assumptions will be more important to the Hearer than others, depending on what his goals are for the communicative interaction, and some RT theorists appear to admit goals as an influence on interpretation (e. g., Oswald 2016; Straßheim 2010). What’s more, this constraint ignores important aspects of everyday communications, like phatic communications intended not to communicate information but to enhance the affiliation between Speaker and Hearer or to create an emotional response in the Hearer that cannot easily be summarized in propositional form. Piskorska (2016, 289) characterizes these as “perlocutionary effects”⁹ of speech, effects of a “cognitive or affective type induced intentionally in the hearer by the speaker producing an utterance”. We will also take these up below.

In any event, under the relevance-theoretic comprehension procedure, the easy interpretation should be the first; and by definition, it will be the best (though it might not be correct). This approach is consistent with the cognitive heuristics called “take-the-best” and “satisficing” by Gigerenzer and Brighton (2009, 130).

⁸ By *ostensive communicative stimulus*, Wilson and Sperber refer to one “designed to attract an audience’s attention and focus it on the communicator’s meaning” (Wilson/Sperber 2004, 611).

⁹ The term of Austin (1975), of course.

As noted above, Grice (1989) called for the utterance to be decoded and then the inferential process to apply only where necessary. Sperber and Wilson, in contrast, claimed that even the decoding process requires inferences about disambiguation of word senses and reference resolution, what they call “explicatures” or “identification of explicit content” (Wilson/Sperber 2004, 615). For example, for Marc to interpret “La plume de notre tante est sur le bureau” (2), he must resolve references like *notre tante* “our aunt”, especially if they have more than one aunt, and *le bureau* “the desk”, where contextual factors must provide necessary information for Marc to conclude *which* desk.

Importantly, Wilson and Sperber imagined a series of subtasks of the first step of the comprehension procedure in (9) to happen simultaneously and for the results of this “online” comprehension procedure to influence each other, listed in (11) through (13) (Wilson/Sperber 2004, 615).

- (11) Identify explicatures through “decoding, disambiguation, reference resolution, and other pragmatic enrichment processes”.
- (12) Construct “an appropriate hypothesis about the intended contextual assumptions (implicated premises)”.
- (13) Construct “an appropriate hypothesis about the intended contextual implications (implicated conclusions)”.

RT takes all these subtasks as requiring inference and as taking place simultaneously. The Hearer does not decode “literal meaning” or “what is said” first and only then apply inference.

One advantage of this approach is that RT does not have to regard metaphor and irony as exceptional or as arising only from a clash between or flouting of Gricean maxims. For example, when Bill asks “What do you think of Smith’s new German textbook?” (5) and Anne answers “Où est la plume de ma tante” (6), Bill could likely recognize from Anne’s body language and tone of voice that her utterance was meant to be sarcastic or ironic and that he should not seek a literal interpretation of what she is saying (which would be a waste of interpretive effort in any event). Wilson and Sperber would maintain that Bill reaches this interpretation by mutual adjustment of the explicit and implied content in the utterance and that this is exactly the same method that any Hearer uses to interpret any other utterance, including “strictly literal interpretations” (Wilson/Sperber 2012, 108). In this sense, literal interpretations are not in any way an initial default.

The relevance theory of Wilson and Sperber addresses some of the concerns about classical pragmatics raised above. RT shifts away from a preference for decoding, still evident in classical pragmatics, and offers decoding and infer-

ence as parallel processes operating online rather than one before the other. These moves lead to more cognitively efficient interpretation. Notably, RT dispenses with the Cooperative Principle of Grice as unnecessary, removing an impediment to the bridge between pragmatics and rhetoric identified in Dascal and Gross (1999) and Liu and Zhu (2011). But other concerns discussed above remain: RT focuses only on the propositional content of utterances, without attention to Speaker's and Hearer's goals and emotions. This is important both from the perspective of production, where RT does not acknowledge that the Speaker's goals may involve changing the Hearer's emotions and goals as much as his assumptions or beliefs about the world, and interpretation, where RT views the work of interpreting utterances as still being substantively rational, without considering the "procedural" rationality of cognitive heuristics or the effect of the Hearer's goals and emotions on his interpretation. Finally, Wilson and Sperber's work seems strongly focused on relevance-theoretic *comprehension* or *interpretation*, without giving much attention to the *production* of communicative performances. The work of several scholars begins to address these concerns.

Straßheim (2010), based on the work of Alfred Schutz (1973), focused attention on the Speaker/Writer's production of utterances; on the concept of "typification", which can be seen as a habitual cognitive response to a repeated context; and on the consideration of things other than assumptions as constituting cognitive effects, including especially the Speaker's goals. Schutz's theory of *typification* has played an important role in contemporary rhetorical theory (Bazerman 2013; Miller 1984). Straßheim (2010, 1413) argued that Schutz's typification is grounded in the concept of relevance, and that Schutz's relevance-theoretic perspectives on communication complement those of RT. Straßheim quoted Schutz: "The concept of relevance is the central concept of sociology and of the cultural sciences."

The theory of Straßheim (2010) makes three important contributions. Though he did not identify it as one of his major contributions to relevance theory, I propose that Straßheim's first contribution was to focus considerable attention on the Speaker's production of optimally relevant utterances, rather than only on the Hearer's interpretations. This marks an important difference from RT, which consistently focuses on the Hearer's interpretive processes but neglects the processes of production, the realm of rhetoric. Straßheim (2010, 1419; emphasis mine) wrote: "Since the intended experience is highly selective, the *communicator* should, in her own interest, attempt to *suit her communicative means and ends to her addressee's dynamics of selections*, i.e. she should somehow diagnose and prognosticate what is relevant to her addressee under which circumstances." Unfortunately, Straßheim did not offer

a relevance-theoretic explanation of how the Speaker produces her utterance; I have extended his work to do so below.

Straßheim's second useful addition to relevance theory was an understanding of how a Speaker could predict what the Hearer will find to be relevant. In his view, "a relevance theory of communication needs to say more [than RT does] about how people know what would be relevant to others" (Straßheim 2010, 1422). This is true given that we cannot have entirely congruent experiences.¹⁰ As a solution, Straßheim (2010, 1423) proposed Schutz's theory of typification, an idealization that there is "a congruency of the systems of relevances" in Speaker and Hearer, summed up by this quotation from Schutz:

Until counterevidence [sic] I take it for granted – and assume my fellow-man does the same – that the differences in perspectives originating in our unique biographical situations are irrelevant for the purpose at hand of either of us. (quoted in Straßheim 2010, 1423)

The idealization comes with a recognition that the counter-evidence Schutz mentioned could come at any time, and that if a Speaker or Hearer fails to recognize the counter-evidence, a miscommunication is possible or even likely. Schutz and Straßheim noted that Speakers and Hearers in most cases must immediately abandon the idealized similarity between them, but only to the extent that the evidence of their context and communications demands it. In other words, Speaker and Hearer will rely heavily on habitual performances and interpretations, barring counter-evidence that suggests they should vary from habitual practices. This is consistent with the "fluency heuristic" described by Gigerenzer and Brighton (2009, 130).

Straßheim's third useful addition to relevance theory was to argue that its definition of "cognitive effects" as alterations in the Hearer's store of assumptions was too "constrained to an inferential logic of assumptions". He saw that "Sperber and Wilson strictly define the 'effect' side of relevance (which shapes the whole notion) in terms of either deducing new assumptions, modifying the strength of old ones, or erasing old ones" (Straßheim 2010, 1432). Recall from above that "assumptions" are representations about the world that can be stated in propositional form. Straßheim claimed that such a limitation results in relevance theory failing to account for enough of what goes on in communication and contrasted it with the theory of Schutz, which considered "practical planning and acting" and emotions as important inputs to the relevance assessment (Straßheim 2010; see also Larson 2016; Oswald 2016; Piskorska 2016).

10 And if we did, as Straßheim noted, there would be no need for communication.

5 Cognitive pragmatic rhetorical theory

Like the work of Wilson and Sperber, one of the goals for cognitive pragmatic rhetorical (CPR) theory is to offer a framework for describing human communicative activity in a way that can effectively be explored empirically. Essentially, CPR theory seeks to build a cognitive bridge between rhetoric and pragmatics, and particularly experimental pragmatics. It does so by synthesizing RT and adaptations of it by RT theorists described above.

In brief, CPR theory explains how Speakers and Hearers produce and interpret utterances subject to the principle of relevance, which I describe metaphorically as a *fraction* with cognitive effect in the numerator and cognitive effort in the denominator. Cognitive effects consist of assumptions, or factual representations, and emotions that are consistent with the Hearer's goals and which the Hearer may derive from an utterance by means of substantively rational inference – taking into account linguistic decoding, contextual information, and expectations about the Speaker's intended effects – application of cognitive heuristics, or both. Cognitive effort consists of the effort required to engage in rational inference as well as search costs, the effort required to make interpretive resources accessible in the Hearer's cognitive environment. The CPR relevance fraction emphasizes that as the cognitive effect grows, so too does relevance, and as the cognitive effort grows, relevance declines, just as the numerator and denominator of a fraction affect its evaluation.

To flesh out CPR theory, I will connect these cognitive and pragmatic dimensions to rhetoric. First, I examine the components of the cognitive environments for Speakers and Hearers. Cognitive environment is a concept in RT that refers strictly to the *assumptions* that Speakers and Hearers hold. CPR theory adapts this concept by expanding the meaning of *assumption* and by including the Speaker's and Hearer's goals and emotions.

Second, I explain how CPR theory extends the idea of cognitive effort (or accessibility) by recasting it to include *search costs*: the effort a Hearer spends to find productive or interpretive resources not presently accessible in his or her cognitive environment. The greater these search costs, the greater the effort in the effect-effort fraction that defines relevance, and the more likely the Hearer will not interpret the utterance as the Speaker desires.

Third, I show how the Speaker's cognitive environment connects to the Hearer's cognitive environment by describing CPR theory's notion of *imputed cognitive environment*. This can be seen as the construction of the audience by a speaker (or vice versa), consistent with some contemporary theories of rhetoric (e. g., Perelman/Olbrechts-Tyteca 1969). Finally, I illustrate the CPR-theoretic production and interpretation processes using the examples with which this chapter opened and with an attested rhetorical performance.

5.1 Components of cognitive environments

A central component of a human's communicative production and interpretation is the human's "cognitive environment", which I define this way:

- (14) *Cognitive environment (CPR)*: For an individual at a given time, the union of the set of assumptions and goals accessible to him or her and his or her emotional state.

I define each of these components and explain why it is included in this definition below. This definition of "cognitive environment" differs from Sperber and Wilson's. In RT, the cognitive environment includes only assumptions, but I reject both RT's limited definition of "assumption" and its restriction of the cognitive environment only to assumptions.

5.1.1 Assumptions

In CPR theory, assumption is defined as follows:

- (15) *Assumptions (CPR)*: Thoughts that can be expressed in propositional form and are treated by the individual as representations of the world, including the states of mind of the individual or others (meta-representations) and including hypothetical propositions.

Recall that for RT, assumptions are beliefs with propositional content. Sperber and Wilson (1995, 2) define "assumptions" as "thoughts treated by the individual as representations of the actual world (as opposed to fictions, desires, or representations of representations)".

Sperber and Wilson conclude that assumptions can be presented in propositional form. For example, the moment Cyrille responds "La plume de notre tante est sur le bureau" (2) to Marc's question "Où est la plume de notre tante?" (1), Marc may entertain a representation such as (16), (17), or (18) or some combination of them.

- (16) 'The pen is on the table.'
 (17) 'Cyrille just told me the pen is on the table.'
 (18) 'Cyrille wants me to believe that the pen is on the table.'

On Sperber and Wilson's account, though, (18) is not an assumption but a representation of a representation, or a meta-representation. Nevertheless, as such

hypothetical and meta-representations are the inputs and outputs of communication, I will not exclude them.¹¹

For Speaker and Hearer alike, contextual assumptions are critical for interpretation, including (A) “encyclopedic knowledge about the world”,¹² (B) knowledge speaker and hearer have about each other, (C) knowledge of events that have just transpired in a shared environment, (D) knowledge of previous utterances witnessed by them, (E) non-verbal cues like smiles, winks or tone of voice, (F) knowledge of linguistic cues, and (G) the physical environment (Yus 2016, 150–154).

CPR theory recognizes at least two attributes of assumptions that are important in their application: An assumption can be more or less accessible to the individual, and an individual can be more or less committed to an assumption. See the discussion below of accessibility and commitment.

5.1.2 Goals

Having addressed assumptions, we can turn now to goals. As a preliminary definition of “goal” for CPR theoretical purposes, I offer (19):

(19) *Goals (CPR)*: Consequences (end states or otherwise) desired or unwanted by a human and capable of motivating him or her to action.¹³

Goals are not a feature of the cognitive environment in RT (cf. Larson 2016; Oswald 2016). Straßheim (2010) made an important contribution by noting that the calculation of “relevance” is difficult or impossible without accounting for the goals of the individual, but he did not offer a definition of “goal”. This chapter is no place

11 Sperber might conclude that cognition relating to utterances and thoughts (all meta-representations) would be handled by a different mental module under his massive modularity hypothesis, under which there are distinct mental modules for communication, argumentation, etc. Ultimately, it is not necessary for purposes of CPR theory’s goals of analysis and interpretation to distinguish these modules, though it might prove helpful for empirical research in the future. The same is true, for example, with regard to the possibility that there is a mental model for automatic (affective) evaluations of stimuli (Bargh et al. 1996, 123) in relation to my inclusion of emotions in the cognitive environment.

12 Not necessarily true information, but what is commonly believed – *doxa* or *endoxa*, in classical rhetorical terms.

13 Adapted from Gutman (1997, 547), internal citations omitted. Future study of goals in this context probably needs to explore the way that goals – what we want or don’t want – are shaped by values – why we want or don’t want those outcomes (Gutman 1997).

to offer a complete theory of goals for human action, but it seems necessary to offer at least the tentative definition above (adapted from the realm of marketing psychology) that can be subjected to future refinement.

Goals can be more or less accessible just as assumptions can; that is, the individual may or may not have a particular goal “in mind” during a particular communicative interaction. Like assumptions, goals are also subject to varying degrees of commitment.

5.1.3 Accessibility, search costs, and commitment

Goals that are accessible to an individual influence the way that she processes information (Peterman 1997). So, too, do accessible assumptions (Bargh et al. 1996, 105). But what does it mean to say that an assumption or goal is “accessible”? For a start, it means to acknowledge that it is possible for an individual to have assumptions and goals that are not influencing her present cognition to the full extent possible.

This leads (finally) to a tentative definition of “accessible” in CPR theory:

- (20) *Accessible (CPR)*: An assumption or goal is more accessible than another if it presently exerts greater influence on information processing and decision-making, or can be made to do so with lower search costs, than the other assumption or goal.

So, as Bargh et al. (1996, 105) explain:

The accessibility of knowledge is a function of how *recently* it has been used and also of how *frequently* it has been applied in the past [...] Frequently used or chronically accessible knowledge exerts a greater influence on judgment than does other relevant but less accessible knowledge regardless of whether it has been recently used or not; it is in a relatively permanent state of increased activation.

To this, I would add assumptions (and goals) derived from or driven by a cognitive heuristic (à la Gigerenzer/Brighton 2009) or an automatic process (Bargh/Chartrand 1999).

An important way to conceive of accessibility of goals or assumptions not presently accessible is to think of it in terms of “search costs”: A goal or assumption is more accessible where the individual needs to search less in memory for it or to engage in less inferential reasoning to derive it. For readers who are language teachers, exposure to Anne’s utterance “Où est la plume de ma tante” (6), in response to a question having nothing to do with aunts or pens, will “prime” assumptions related to phrasebooks, low-quality language instruction, etc. This

is consistent with research in “semantic priming” (see Hutchison et al. 2013, for an overview of this literature) and evaluative priming (Bargh et al. 1996). For most individuals, mentioning their goals will prime them, I believe, making them more available to influence interpretation.

At this point, I want to return to the concept of the *heuristic*. Above we considered the heuristic as a “fast and frugal” means of reaching a conclusion, one that operates more or less automatically in human cognition and which might or might not be justified on rational grounds. This type of cognitive heuristic has sometimes been called a cognitive bias.¹⁴ I equate search costs with the costs of finding an assumption in memory or through inference. The cognitive heuristics discussed above refer to low-cost methods for finding assumptions. But Straßheim also identifies another source for low-cost searching: typification, those “connections ingrained through repetition and automatization, [...] relatedness framed by routines or habits, [and] the continuation of what went on before” (Straßheim 2010, 1426). This is consistent, too, with Bargh et al.’s (1996, 105) “chronically accessible” representations, which “become active upon the presence of relevant environmental information”.

Accessible goals and assumptions are “highly salient information that is constantly and automatically being strengthened” (Yus 2016, 158).

Contrast the notion here of accessibility of an assumption with an individual’s commitment to it. For example, the assumption ‘The pen is on the table’ (16) may be one to which Marc is only tentatively committed on the basis of the fact that Cyrille has told him where the pen is. He may conclude that she could have uttered “La plume de notre tante est sur le bureau” (2) out of indifference and with no knowledge; or even in an active attempt to mislead him. Thus, the assumptions ‘The pen is on the table’ (16) and ‘Cyrille just told me the pen is on the table’ (17) may be equally *accessible* to Marc at the same time that he is *committed* more to (17) than to (16).

5.1.4 Emotional states

Rhetoricians since Aristotle have overtly recognized the role of emotion in communication and persuasion. Among his three artistic proofs was *pathos*, or appeal

¹⁴ The senses of the word “heuristic” include “[d]esignating or relating to decision making that is performed through intuition or common sense” – a sense consistent with that discussed above – but also the sense “[o]f, relating to, or enabling discovery or problem-solving” (Oxford English Dictionary, n.d.). The word’s etymology goes to the Greek *euriskein*, “to find” (Oxford English Dictionary, n.d.). This is the same root as for the term “*heuresis*”, the Greek name for the first rhetorical canon, called “*inventio*” in Latin or “invention”.

to emotion (Aristotle 2007). Dascal and Gross (1999) suggested, rightly I think, that rhetoric and pragmatics need to account for emotion in the production and interpretation of communicative performances. They limited that assertion, though, to claiming that the emotional aspects of communication should be subject to rational inference. I believe it's important to distinguish the conception of *emotional states* and their effects on the production and interpretation of communication from *assumptions about emotional states*, which can be the objects of rational inference.

Consider the exchange where Carlos asked “Where is Aunt Luisa’s Mont Blanc pen?” (3). Laura responded “La plume de ma tante est sur le bureau” (4). Laura’s goal here was not to communicate needed information to Carlos. Instead her response in French, a language she and Maria speak but that Carlos does not, can be seen only as an effort to embarrass Carlos or make him angry in front of Maria. At this point, Carlos might *feel* embarrassed or angry. On the other hand, if he is used to Laura’s efforts to anger him, he might not have those feelings at all. Thus he may (or may not) adopt any of the following assumptions:

- (21) ‘I feel angry and embarrassed.’
- (22) ‘Laura’s comment has made me angry and embarrassed.’
- (23) ‘Laura intended her comment to make me angry and embarrassed.’

These assumptions can be the objects of rational inference. For example, once Carlos adopts (21) and (22), he might rationally infer (23) – though they by no means compel it. The feelings Carlos is *experiencing* can affect his cognition in a wide variety of ways. For example, anger and embarrassment may cause him to stomp out of the room in a huff. But note that Carlos may experience the feelings of anger and embarrassment without adopting any of the assumptions in (21) through (23), and that he might adopt the assumption (23) without actually feeling angry or embarrassed.

The effect of the Speaker’s utterance on the emotions the Hearer experiences is therefore distinct from the assumptions that the Hearer has about his emotions. CPR theory maintains this distinction by evaluating emotions as cognitive effects in their own right, separately from any assumptions or propositions about them.

5.1.5 Imputed cognitive environments

A person interacting with another person adopts assumptions about what the other’s cognitive environment includes. In other words, a Speaker has expectations about what assumptions and goals are accessible to the Hearer and what

emotions he is experiencing. These assumptions by an individual about the cognitive environment of another I call “imputed cognitive environments”.

This concept is modeled after the “mutually manifest” cognitive environment of RT, but I have avoided the terminology from RT. The name “mutual manifestation” suggests that the Speaker and Hearer actually share assumptions and that they know they share them. Sperber and Wilson (1995) took pains to clarify that this is not the case: What is mutually manifest between Speaker and Hearer may be different for Speaker and Hearer. In other words, what the Speaker thinks the Speaker and Hearer both believe may be different than what the Hearer thinks they both believe. Thus I believe the “mutually manifest” name is unnecessarily confusing and have chosen “imputed” cognitive environment instead. This conception of a mutually shared environment imagined by one party to it is consistent with the conception of audience in Perelman and Olbrechts-Tyteca (1969): They note that for a speaker, her audience is always a construction of her own, based on what she knows (or thinks she knows) about the audience.

A human may construct an imputed cognitive environment with relation to another human (or group of them) based upon a variety of assumptions and stimuli, including the contextual information identified by Yus above. For example, if two humans are interacting in a typified situation, each can be expected to understand the underlying assumptions held by the other. But as Schutz noted, they cannot have had the same experiences of even these typified environments, so their imputed cognitive environments cannot be entirely congruent.

5.2 CPR-theoretic production and interpretation

Under CPR theory, I argue that the production and interpretation of utterances is governed by relevance, but I propose a slight alteration to the formulation of the concept of relevance. As with Sperber and Wilson’s relevance theory (RT), relevance in CPR theory is a metaphorical ratio of effect to effort. But the workings of this ratio are slightly different for the Speaker than for the Hearer. This section introduces the CPR-theoretic production and interpretation procedures.

A Speaker seeks by her utterance to change the cognitive environment of the Hearer. The changes the Speaker seeks to work on the Hearer’s cognitive environment will depend on which of the Speaker’s goals are most accessible to her when she is speaking and the strength of her commitment to them. The Speaker’s cognition is governed by the principle of relevance. She seeks to maximize the ratio of effect to effort. So I offer the CPR-theoretic production procedure:

- (24) *CPR-theoretic production procedure*: The Speaker should incur search costs in producing her utterance proportional to the effect she expects it to have on the Hearer's cognitive environment, taking into account the imputed cognitive environment, the Hearer's likely assessment of the utterance's relevance to the Hearer himself, and the accessibility and strength of the goal the Speaker is attempting to advance.

This procedure was implicit in Larson (2016)'s analysis of students' writing production. He suggested that students expended considerable effort keeping the linguistic conventions of a professional genre accessible in their cognition while suppressing "chronically accessible" practices associated with the authors' genders. The students did so, he suggested, because they had highly accessible goals to which they were strongly committed: getting good grades on the assignments and making positive impressions on faculty. The goals warranted high search costs and overcoming the usually-high relevance of habitual communicative performances.

Relevance for the Hearer consists of the ratio of effects to efforts, too. But unlike RT, CPR theory does not hold that a Hearer's assessment of cognitive effects is limited to the enhancement of the *assumptions* available to the Hearer. On the contrary, CPR theory acknowledges that the Hearer may be engaged in the communicative exchange to obtain something more or other than information. CPR theory also measures the Hearer's effort in terms of search costs: For example, the greater the extent to which he can identify the Speaker's utterance as an example of a habitual utterance pattern, the lower the effort required to interpret her utterance.

However, because the Hearer can presume that the Speaker has attempted to make her ostensive communication optimally relevant to him, he can continue generally to rely on the RT comprehension procedure, which directs him to follow a path of least effort in interpreting the utterance and to stop when his expectations of relevance are met. (See the discussion regarding Wilson and Sperber's relevance-theoretic comprehension procedure in (9) and (10) above.) The CPR theoretic interpretation procedure accounts for the accessibility and commitment of the Hearer's goals, though, and can thus be defined this way:

- (25) *CPR-theoretic interpretation procedure*: The Hearer should follow the path of least effort in interpreting the Speaker's utterance, testing interpretative hypotheses in order of accessibility, stopping when his expectations of relevance are satisfied, taking into account the imputed cognitive environment and the goals the Hearer is attempting to advance.

6 Analyses of illustrative examples

CPR theory accounts for the examples with which this chapter opened, a partial analysis of which I offer here. Assume that after Marc uttered “Où est la plume de notre tante?” (1), Cyrille’s cognitive environment consists (at least in part) of the following assumptions, goals, and emotions¹⁵:

- (26) A(ssumption): ‘Marc just asked where our aunt’s pen is.’
- (27) A: ‘The pen is on the desk.’
- (28) G(oal): To aid, or at least not to hinder, Marc.
- (29) E(motion): Desire to help, or at least none to harm, Marc.

Cyrille’s goals and emotions probably pre-date Marc’s question, and her assumptions are easily derived from asking the contextual questions suggested by Yus above. As for the cognitive environment Cyrille imputes to Marc, that includes probably at least the following:

- (30) !A [That is, he does not have this assumption]: ‘The pen is on the desk.’
- (31) G: To know where the pen is.
- (32) G: To get the pen, probably relatively quickly.

She may attribute any number of other goals and emotions to Marc, but this will suffice for now. Given her cognitive environment, the utterance that requires the least effort for her to produce and optimally achieves her goals is “La plume de notre tante est sur le bureau” (2).¹⁶ As noted above, Marc’s interpretation requires merely decoding the words.

Let’s assume that Laura’s cognitive environment after Carlos asks “Where is Aunt Luisa’s Mont Blanc pen?” (3) looks something like this:

- (33) A: ‘Carlos just asked where our aunt’s pen is.’
- (34) A: ‘The pen is on the desk.’
- (35) A: ‘Carlos pronounces *Mont Blanc* that way because he is pompous.’
- (36) A: ‘Maria heard Carlos’ question and will hear my response.’
- (37) G: To put Carlos in his place by annoying or frustrating him.

15 In these analyses, components of speakers’/hearers’ cognitive environments are designated as ‘A’ for assumption, ‘G’ for goal, and ‘E’ for emotion. An exclamation mark before the abbreviation indicates that the actor does not have that component. For example, “!A: ‘The pen is on the desk.’” signifies that the actor does not possess the assumption, ‘The pen is on the desk.’

16 It’s possible that just “Sur le bureau” would have been even better.

- (38) G: To amuse Maria or to invite her into a conspiracy against Carlos.
 (39) !G [That is, she does not have this goal, though we need not assume she opposes this goal]: To help Carlos.
 (40) E: Playfulness, aggression, perhaps, toward Carlos.

She might impute to Carlos a cognitive environment that includes (30)–(32). Given her goals and emotions, it's worth it for Laura to search for and construct the French response to Carlos's question, even though she would find it easier as a native speaker of English to respond in English. If we remove (37) and (38) as goals, though, that effort would make no sense, and her response would more likely be "on the desk".

For his part, Carlos will impute to Laura less-than-charitable goals if she utters "La plume de ma tante est sur le bureau" (4) in a language he does not understand, especially if she delivers it in an exaggerated or pompous tone of voice. He need not spend any more time decoding or interpreting her utterance, because he can conclude that she means it to be impenetrable to him. If he can master his own emotions, though, he might recognize the word "bureau", a cognate in English and French, and get the answer he needs. Whether he does that or instead stomps out of the room probably depends on the strength of his goals (31) and (32) (assuming those are indeed his goals).

Finally, after Bill asks "What do you think of Smith's new German textbook?" (5), Anne might have this cognitive environment:

- (41) A: 'Bill just asked what I thought of Smith's text.'
 (42) A: 'Smith's text is superficial and useless.'
 (43) A: 'Bill understands French.' [This may require search costs for Anne, depending on how familiar she is with Bill's knowledge of languages.]
 (44) A: 'Smith's text is like a language book that teaches "La plume de ma tante ..."' [This probably requires her to incur search or inference costs, though she may have formulated this comparison earlier, while actually reviewing the text.]
 (45) G: To answer Bill's question.
 (46) G: To seem clever to Bill.
 (47) G: To amuse Bill.
 (48) E: Playfulness[?]

She might impute to Bill:

- (49) G: To know whether Smith's text is any good.
 (50) G: To be amused, or at least no opposition to it.
 (51) E: Playfulness.

Formulating her response in the form “Où est la plume de ma tante” (6) is relevant because the extra efforts to derive (43) and (44) and to utter (6) specifically address her goals (46) and (47) and gratify her emotion (48). But she has imposed a higher interpretative cost on Bill, who does not get a straight answer to his question. If Anne is wrong about Bill’s cognitive environment, for example, if he does not represent (50) or (51) and strongly holds (49) as a goal, he might be impatient with her attempt at a joke, and he might fail to interpret (6) correctly, or at all.

A full analysis of these situations would likely involve a consideration of many other contextual factors, but as constructed examples, they provided few such details. Let’s consider instead an attested (though perhaps apocryphal) rhetorical performance.

Joshua Norton was a peculiar presence in 19th-century San Francisco, about whom we have a number of stories, but it’s difficult to say which are true and which apocryphal. He reputedly styled himself “Emperor of America and Protector of Mexico”, doing so after failed businesses had left him impoverished (Ryder 1939, n.p.). He wore military-royal clothes and even printed his own money. On one occasion, he was walking after dinner and came upon a crowd of anti-Chinese demonstrators at the corner of Kearny and California Streets who were being whipped into a potentially violent frenzy by a speaker. Anticipating violence, Norton asked to address the crowd, who at first laughed that he was being allowed to do so. According to Ryder (1939, n.p.):

The Emperor, steadying himself with his heavy cane, closed his eyes and commenced reciting the Lord’s Prayer. Even the hoodlums were silent, and when he asked the audience to repeat the Prayer with him, some of them joined in [...] Then he made a little speech of his own [...] When [he] requested the crowd to disperse, it did so quickly, without dissent. There were no windows broken in [...] Chinatown that night.

In this situation, Norton took advantage of contextual information and assumptions, goals, and emotions that he could impute to his audience. For example, he was no doubt aware that such “typical” gatherings often resulted in violence against the Chinese immigrant community (recent events and recent utterances). We may assume that he had a very strong and very accessible goal to prevent violence and to get the crowd to disperse. He may have believed that directly contradicting a demagogue and ordering an angry mob to disperse rarely works. So his strong, accessible goal motivated him to expend more cognitive effort to search for a rhetorical solution. If he thought of ways to calm the crowd, he might readily have come up with the Lord’s Prayer. He could reasonably conclude that most of the folks of European heritage in the crowd had Christian backgrounds (knowledge of the audience). He probably knew that the Lord’s Prayer is common to all Christian denominations and appears in their scriptures (Matthew 6:9–13;

encyclopedic knowledge; knowledge of linguistic cues). He could presume that they were all familiar with the Prayer and that they associated it with contexts of quiet, contemplation, and supplication, rather than contexts of violence (knowledge of audience and of previous utterances witnessed by them). He would expect that closing his eyes while reciting the prayer would reinforce the recollection of such contexts, making them more accessible to his audience (non-verbal cues). Asking the audience to join him in reciting the prayer further functioned to evoke the context of the church, which would generally be inconsistent with violent action (knowledge of the audience and previous utterances witnessed by them).

He made his message (the perlocutionary objective of which was to calm the crowd's violent emotions and change their immediate goals to peaceful ones) relevant to the audience: He chose an utterance – the prayer – that did not directly or literally communicate its message, so interpreting it would normally require more effort from the audience. But by choosing sentences that evoked a “chronically accessible” context for the audience, Norton could take advantage of the changes his utterance (and theirs, too, when they agreed to repeat it with him) would easily work on them to calm them before he switched to a more traditional oratorical mode and asked them to disperse.

Even this little analysis is elliptical, and there is much more that can be said about this case, but it goes some way toward showing how principles of RT and CPR theory can contribute to a rhetorical understanding both of how orators might construct their utterances and audiences understand them.

7 Looking forward

This chapter has introduced cognitive pragmatic rhetorical (CPR) theory, which provides a framework for analysis not available in classical pragmatics, in the relevance theory (RT) of Sperber and Wilson, or in contemporary rhetorical theory. CPR theory is cognitive in that it embraces theories from cognitive science, including cognitive heuristics and automaticity and RT itself. It seeks to characterize human communication in ways consistent with the wide-ranging programs of empirical research into it.

CPR theory is overtly pragmatic in that it adopts and adapts most of the machinery of RT. It extends that machinery by synthesizing work of RT theorists who have acknowledged the need for RT to account for speaker and hearer goals in communicative production and interpretation. CPR theory contributes to RT a production procedure that explains the great efforts speakers will make to contrive a complex communicative performance when the stakes (expressed as speakers' strong and accessible goals and emotions) are high.

CPR theory measures cognitive effect not just in terms of increasing the hearer's assumptions – or propositional knowledge about the world. By focusing on hearers' emotions and goals, on the accessibility of assumptions and goals, and on a framework for assessing accessibility, CPR theory helps to clarify what is and is not relevant in human communication for hearers. Whether a speaker's utterance will seem optimally relevant to a hearer and thus warrant interpretive effort will still depend centrally on the hearer's goals for and emotions about the exchange and the accessibility of the assumptions she will need to search to generate necessary interpretive machinery – that is, on the cognitive effort.

Finally, CPR theory is rhetorical in that it seeks to explain the available means of persuasion and the process of rhetorical production. It also seeks to make rhetoric an explanatory discipline rather than just a knack born of experience. It may permit rhetoricians not only to identify rhetorical constructs like “rhetorical situations”, “identification”, and “genre”, but also to explain their operation in cognitive terms.

Many questions remain. CPR theory may not be consistent with the empirical findings of researchers in cognitive science and RT. A closer comparison of CPR-theoretic principles with outcomes in such studies is necessary. And despite the toy and possibly apocryphal examples analyzed in this chapter, CPR theory has not yet proven that it can provide new and useful insights to rhetorical analysis not available with other approaches. Future work will thus determine whether CPR theory is a safe bridge, allowing travel between pragmatics and rhetoric.

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The Body Relevant

Abstract: In the sociological-phenomenological field the role of the body has been stressed in particular during the past twenty years. Alfred Schutz's work, best known for his project to develop a comprehensive sociology inspired by phenomenological principles, inspired some reflections on the role the body and corporeality may hold in our everyday actions and interactions. The aim of this essay is to address the role of the body and of intercorporeality in the production of our intersubjective and social relations and to consider its role in respect to Alfred Schutz's concept of "system of relevances". For this purpose, concepts from the phenomenology of the body of Maurice Merleau-Ponty, recent sociological theories of the body inspired by phenomenology, as well as the enactive paradigm in phenomenology shall be considered.

1 Introduction

The theme of body and embodiment has been tackled for many years only partially in sociology. As some social theorists and researchers in this field acknowledge, it was not until the 1990s that the body explicitly became the focus of sociological discussions (Gugutzer 2004; Gugutzer 2006). Forefathers in the sociological discipline have not ignored this topic. Georg Simmel is probably one of those who could be named a proper pioneer in this respect. However, it is only in the second part of the 20th century that the body became more clearly a topic of the sociological field. Norbert Elias drew attention, for instance, to the civilization process that forms the body and renders the body social. Pierre Bourdieu or Michel Foucault are authors who also gave particular attention to the role of the body in connection to power relations (Bourdieu 1979; Foucault 1975) defending sociological approaches in which the body plays a central role.

However, in their work, the main conception is that society holds a prominent position, forming individuals while influencing representations and presentations of their bodies, as well as their praxis repertoires. In their perspective, the body holds a rather passive role. It is a first layer material which waits to be modified and worked upon. The instance that constantly prevails in the perspective of the previously mentioned authors is the social. The social is primary while the body

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(more particular, the individual's body) is secondary. The intention of this essay is to highlight the role of the body in the constitution of intersubjective relations while considering its potential in the structuration of what in the social phenomenology of Alfred Schutz is known as the "system of relevances" (Schutz 1970).

A first line of interrogation that draws attention to the importance of the body for social life and for the constitution of our intersubjective relations prolongs the "classical" established view according to which the body is something pathic. This implies that in most situations, social structures prevail over individuals, configuring different forms of corporeal socialization. Sociologists such as Bryan S. Turner, Anthony Synnott, Chris Shilling, Loic Wacquant are known to be defenders of such a view. And yet a sociology which is phenomenologically inspired and which defends our corporeal experiences in the realization and construction of social and intersubjective relations emerges only in the 1990s and early 2000 (Crossley 1996; Williams/Bendelow 1998; Nettelton/Watson 1998; Gugutzer 2002; Gugutzer 2004). If the work of Maurice Merleau-Ponty and Edmund Husserl was constantly mobilized while discussing the importance of corporeality in the constitution of intersubjectivity (Gallagher 2005; Synnott 1993; Tanaka 2012), Alfred Schutz's conceptual heritage is less concerned with this aim. This is partly justified by Schutz's epistemological interests, which go more into the direction of a mentalist perspective. And yet, some of his texts (Schutz 1962 [1953]; Schutz 1970) point out quite explicitly the role of the body for the configuration of experiential types and for our stock-of-knowledge-at-hand.

With the so called "return of the actor" as a central theme in sociological discourse, a new orientation appeared. This orientation revised the perspective on the status of the body in the realization of intersubjective relations and revived the debate and definition of such a controversial concept as that of "subjectivity", a concept often related with philosophical insights. Thus, an inquiry on the body provided a fresh perspective not only for the issue of the emergence of intersubjective relations but also for the status of "subjectivity" in the sociological field. The subject qua embodied subject acts and takes decisions which have concrete consequences, hence her stance is a pragmatic one. It is a subject that is not legitimated by transcendental principles or that grounds the legitimation of her own position in herself. She defines herself through concrete actions and interactions with other fellow humans. In particular the constructionist orientation in social sciences, developed by Thomas Luckmann and Peter Berger, has contributed to highlight such a view, which relies partly on the heritage of the phenomenological orientation. Phenomenology faces new imperatives especially with respect to the theme of the body in a sociological context.

How should one understand the subjectification of the body and the status of the phenomenological background within the field of a sociology of the body? What

does the body explain about the subject's relation to otherness and about its meaning endowing skills? One of the first attempts that drew attention to the subjectified level of the body and that relies on a phenomenological background was initiated in social theory by Nick Crossley (1995; 1996). In anthropology, the legacy of Thomas Csordas (1990; 1994), who defends embodiment as representing a consistent paradigm for carrying out anthropological inquiries, is also of note in this respect. Furthermore, in Germany, Robert Gugutzer's contemporary contribution to the phenomenological paradigm in the sociology of the body needs also to be mentioned.

The intention of the present essay is to show in the following that a theory which seeks to argue for the constitution of social relations in terms of corporeally based relations can complement and revise the role of the system of relevances, a central concept in the writings of Alfred Schutz (Schutz 1970). To do so, the theoretical classical phenomenological background of the body and corporeality shall be evoked. Further recent sociological (Crossley 1996; Gugutzer 2012) and philosophical positions (Fuchs/Froese 2012; Fuchs/De Jaegher 2009) inspired by the phenomenology of the body shall be presented and correlated to Alfred Schutz's perspective on the role of the system of relevances. This shall be done in order to defend a view according to which the body shapes social and intersubjective forms. In this process of "shaping" the role of intercorporeity and its relation to the system of relevances shall be highlighted.

2 Phenomenolog(ies) of the body

Before Merleau-Ponty's elaboration of a phenomenology which clearly places the body at the center, important theoretical elements, which were integrated by Merleau-Ponty himself in his own approach were already advanced in the writings of Edmund Husserl (1973 [1928]; 1952). Husserl establishes an important categorical differentiation that characterizes the status of our body, a differentiation that extensively inspired contemporary sociological approaches to the body and corporeality (Abraham 2002; Gugutzer 2002; Gugutzer 2004; Lindemann 1996). This categorical separation refers on the one hand to the body in relation to subjective experiences (*Leib*). What we feel and experience as our own constitutes the sphere of a lived body; on the other hand, the body as an object of the natural sciences (Husserl 1952), or the body as objectified by cultural practices and habits which constitutes a special type of knowledge (Lindemann 1992, 335), is phenomenologically understood as *Körper*, an objective body. This differentiation has major consequences for the understanding of the role that the body possesses in the phenomenological approach and in other fields which consider the theme of corporeality and embodiment.

Merleau-Ponty's writings hold a crucial position in defending the role of the body. He marks a paradigm shift within the classical phenomenological discourse. If the conception and importance of the lived body (*Leib/corps propre*) was first advanced by Husserl, phenomenologically, it is with the writings of Merleau-Ponty that the lived body becomes a central topic. The lived body holds a fundamental role both in its being a primordial experiential sphere and as an instance enabling us to have an unmediated access to the surrounding world and to other human beings. It is due to our corporeality that we are intersubjectively and mundanely open. As Merleau-Ponty argues,

the body is the vehicle of being in the world and, for a living being, having a body means being united with a definite milieu, merging with certain projects, and being perpetually engaged therein. [...] For if it is true that I am conscious of my body through the world and if my body is the unperceived term at the center of the world toward which every object turns its face, then it is true for the same reason that my body is the pivot of the world (2012 [1945], 84).

Corporeality, understood as *Leiblichkeit*, is also characterized by a feature which is at the core of many (and not only) phenomenological debates, namely intentionality. By postulating an intentionality which is present at the corporeal level, Merleau-Ponty changes the focus of the phenomenological inquiry from the role of consciousness in the realization of meaning to the role of our own body. The intentional dimension connects two issues: The first is an existential dimension which is fundamental for our relations to one another and for our relations to the objective world in general. Second, corporeality is the meaningful background which opens us to forms of signification other than those granted by mental structures and justifies the understanding of the body in terms of a body subject. This second aspect was also one of the main foci in the work of Merleau-Ponty.

The body is therefore an instance which rests our capacity to be intentional beings on another basis. If in the phenomenological Husserlian perspective more attention was given to the role that transcendental consciousness has in the realization of meaning and thus to its being an intentional pole, Merleau-Ponty questions this approach and argues for the possibility of an *embodied intentionality*. One needs to note though that this concept finds a first theoretical development in Husserlian phenomenology. Husserl advances the concept of operative intentionality (*fungierende Intentionalität*), one of the core concepts in genetic phenomenology and further used by Merleau-Ponty to develop his own project of a corporeal phenomenology. According to Merleau-Ponty, operative intentionality is

the intentionality that establishes the natural and pre-predicative unity of the world and of our life, the intentionality that appears in our desires, our evaluations, and our landscape

more clearly than it does in objective knowledge. Operative intentionality is the one that provides the text that our various forms of knowledge attempt to translate into precise language. (Merleau-Ponty 2012 [1945], XXXII)

It is necessary to mention operative intentionality in the context of the present essay because it allows us to point to the role of the body qua center of our experiential life. Such a notion is capital in a theory that seeks to reconsider the role and understanding of the “system of relevances”. Moreover, operative intentionality introduces a specific dimension in the understanding of our relations with other fellow humans from a phenomenological stance, because it is via our own body (*corps propre/Leib*) that our primary connection to otherness is realized. This orientation towards the other is already there when we are born into the world. It begins even before, since the embryo is connected to her mother by a bodily milieu, and therefore a proto-relation and proto-directedness towards the other starts already at this stage of life.

Merleau-Ponty draws attention to the centrality of the body in his writings also because he intends to overcome a classical dichotomy maintained in the philosophical tradition for centuries. This dichotomy, known especially in relation to René Descartes’s separation between *res extensa* and *res cogitans*, gives predilection to the role of the mind as a principle of knowledge. One of Merleau-Ponty’s intentions was to fight this hierarchy defended by the intellectualist orientation (2012 [1945], 33). Another paradigm he criticizes in order to defend his phenomenological program is empiricism. Empiricism constitutes a view reducing the analysis of the body to an objective stance, a *Körper*. As Merleau-Ponty mentions,

empiricism, by once again defining what we perceive through the physical and chemical properties of the stimuli able to act upon our sense organs, excludes from perception the anger or the sadness that I nevertheless read on someone’s face, the religion whose essence I nevertheless grasp in a hesitation or a reticence, the city whose structure I nevertheless know in the attitude of an officer or in the style of a monument. (Merleau-Ponty 2012 [1945], 25)

Such a conception excludes the complex role of one’s own body, which joins us to one another and to the world around us.

In sociological studies, Merleau-Ponty’s contribution was often quoted especially in relation to the former idea mentioned: that of the mind-body dualism (Gugutzer 2012). This conceptual distinction influenced other disciplines than philosophy proper. In the sociological field for example, one very often finds binary conceptions leading to similar problems like those in the philosophical-phenomenological field. The primacy of mental structures often remained unquestioned when explaining the constitution and functioning of social configurations. Especially theoretical orientations interested in explaining social action privileged this aspect, and thus the role of the body was neglected in

such discourses in order to make place either for reason – action theories have a strongly mentalistic orientation – or for macro-theories of social structures.

The phenomenological insights developed by Merleau-Ponty are valuable precisely in drawing attention to this lack of conceptual equilibrium, more specifically insofar as the discussion of the constitution of social relations is concerned. Therefore, it is worth noting that in his view, the body becomes not only a principle per se having more weight than other characteristics that play a crucial role in the realization and development of our relations to other human beings (and to the world of physical objects in general). The body is a *field*, or to be more precise, the body can only be justified in its connection to a field of other bodies. It is also an instance that conjoins both physical/biological properties and sense-giving properties. These aspects are not separated but integrated within the same configuration. While considering the understanding of the body as a “body social”, a wide range of categories comes into discussion. This perspective, stressing the complexity of our being a body, is endorsed for instance by the sociologist Anthony Synnott:

The body social [...] is both subject and object at the same time; it is individual and personal, as unique as a fingerprint or odour plume, yet it is also common to all humanity with all its systems, and taught in schools. The body is both an individual creation, physically and phenomenologically, and a cultural product [...]. (Synnott 1993, 4)

To highlight the phenomenological importance of the body-subject (Crossley 1996, 28) equally implies to consider the position that this body has qua spatial, qua material entity and how it is marked in its specificity. Husserl, Merleau-Ponty, but especially Alfred Schutz in his theory of the constitution of the social world pointed out that the body qua body-subject imposes a spatial distinction between a “here”, which is the sphere proper to the subject, and different forms of “there” (1962 [1959], 147). The body delineates a specific sphere of the self, namely the “here”, which is differentiated from another human being’s body. The latter’s body is mostly identified as “there”. This differentiation recognizes the central role the lived body holds as a primordial site not only for our experiences, but also for the realization and maintenance of our intersubjective relations.

In the social phenomenology of Alfred Schutz, it is especially this second property that is highlighted. Thus “my own body”, affirms Schutz while discussing Husserl’s intersubjectivity thesis developed in *Cartesian Meditations*, “is for me the center of orientation in the spatio-temporal order of the world. It alone is given to me as the center of the ‘Here’, whereas the Other’s body is given to me as being ‘There’” (Schutz 1962a [1942], 178). Schutz associates, in his discussion of the realization of intersubjectivity, a temporal dimension with the spatial demarcation of the I, which is corporeal:

what was pointed out for the perspectives of ‘here’ and ‘there’ has to be worked out [...] in a further development of the general thesis of the alter ego by analyses of the time-bound perspectives of ‘Now’ and ‘Then’, the social perspectives of ‘We’ and ‘They’ and the personal perspectives of familiarity and strangeness. (Schutz 1962a [1942], 178)

These distinctions allow us to consider different forms and layers of action possibilities. However what one needs to note in the consideration of these distinctions is that, if the body-subject posits a limit qua “own” body, her belongingness to a cultural world, to a lifeworld and to a natural world and especially her quality as being embodied opens and transforms precisely this sphere of “ownness”.

Given that the strata of experiences – either related to the existence of fellow humans or to different horizons of the world – are primordially elaborated from the “zero point” which is our body, any phenomenological prospect associating the constitution of knowledge with selective processes shall be necessarily understood as corporeally bound. The selectivity of our experiences starts with our body qua lived and living. Moreover, our being a corporeal “here” clearly marks our specificity with respect to otherness. However, our capacity to perform an interchangeability of points of view with other human beings, meaning that we can change from “here” to “there”, contributes to our possibilities of understanding them. This process of interchangeability not only takes place in mental models, but very often on a corporeal basis. Despite the variety of the sets and stocks of knowledge of which we dispose and which we use differently according to the contexts and situations with which we are confronted, the basis of our actions and interactions remains corporeal.

The “reciprocity of perspectives” proposed by Schutz in his theory of intersubjectivity works primarily upon an intercorporeal basis. To recall once more his understanding of this concept,

the ‘reciprocity of perspectives’ [...] is founded on the open possibility of an interchange of the standpoints, that is – metaphorically speaking – on the establishment of a formula of transformation by which the terms of one system of co-ordinates can be translated into terms of the other. (Schutz 1962d [1959], 147)

But again, this works only if we consider the range of bodily techniques accompanying them and the contexts which they simultaneously form and by which they are formed. If there is the possibility of an interchange, this also happens because there is a moment when subjectivity lapses into the Other and therefore the I becomes an Other. What is meant by this process of “lapsing into the Other” refers to the fact that our habitus repertoire, which involves corporeal practices and interactional models, belongs not only to oneself but is from the beginning of our life something shared with fellow humans. Reciprocity of perspective is not a

fully conscious process, although it may. Its possibility is grounded by a passive background of meaning which is of bodily nature.

Although Schutz grants the lived body a secondary role in his theory of intersubjectivity, he provides important elements to stress the role of corporeity and intercorporeity in general, for the realization and maintenance of our various systems of relevances. Especially his consideration about the principle of attention (2004 [1932], § 23) while discussing the making of our actions and the resonance they have for a fellow human is of import.

To evoke the Merleau-Pontyan concept of intercorporeity is necessary at this point because it completes and challenges the Schutzian thesis of the “reciprocity of perspectives”. According to Merleau-Ponty,

communication or the understanding of gestures is achieved through the reciprocity between my intentions and the other person's gestures, and between my gestures and the intentions which can be read in the other person's behavior. Everything happens as if the other person's intention inhabited my body, or as if my intentions inhabited his body. [...] The gesture is in the world and invites me to join it there. Communication is accomplished when my behavior finds in this pathway its own pathway. I confirm the other person, and the other person confirms me. (Merleau-Ponty 2012, 190–191)

If we are born in a cultural world of artifacts, we are also born in intersubjective displays of human relations that we maintain and develop by means of our bodies. What remains constant is our intercorporeal manner of being with one another; it is intercorporeity that represents the basic manner in which we live, forming and influencing concrete contexts and interactions.

The Schutzian idea of the reciprocity and congruency of systems of relevances (1962b [1953], 12) is also defended as a key concept for the realization of intersubjective relations in contemporary phenomenological discourses. The role of the lived body plays a crucial role in this case. Hence our lived body and its quality as a living being allows us to establish what Dan Zahavi names a

congruity between one's own experience and the experience of another, a congruity which according to Husserl is the foundation of every subsequent experience of intersubjective objects, that is, objects which are also experienced (experienceable) by Others. (Zahavi 1994, 73–74)

The congruity at the level of the subject's lived body reorients the phenomenological perspective on the realization of our intersubjective relations towards another level in that both the constitution of subjective experiences as such and the constitution of our experiences qua shared with other fellow beings start with our being bodies. This has deep consequences for sociological perspectives on the body and embodiment inspired by phenomenology.

3 Sociological presuppositions

A sociological perspective focusing on the relation between the system of relevances and our corporeal anchorage cannot omit that our bodies are *living* and, second, that the *congruity* of our experiences with fellow humans is precisely motivated by the quality of our body of being “living”. Our resonance qua living beings to the experiences of our fellow human brings into argument the concept of “intercorporeity”. This concept is highly important precisely for its quality to support a primary intersubjective background. In social theory, the term intercorporeity was used interchangeably with that of intercorporeality, as Nick Crossley’s texts show (Crossley 1995; Crossley, 1996), a terminological oscillation which sometimes leads to confusions. In the present essay, the concept “intercorporeity” was used because it is closer to the French Merleau-Pontyan term, namely “intercorporéité”.

Intercorporeity is a phenomenological concept that led to the birth of a sub-field in the sociology of the body: that of “carnal sociology”, the proponent of which is Nick Crossley. The originality of Crossley’s carnal sociology resides in that it elaborately starts out from two Merleau-Pontyan concepts: intercorporeity and flesh/carnality. Defending especially the notion of intercorporeity, Crossley affirms that

this notion [...] suggests that subjects are joined by their belongingness to a common world. Furthermore, it denotes that they ‘open’ onto each other. To see the other is not to have an inner representation of her. It is not to have her as an object of thought – although this is possible. It is to be-with-her. (Crossley 1995, 57)

This conception of being-with revises also the thesis related to the system of relevances which is proposed by Alfred Schutz in that, if as Schutz argues, “in daily life I construct types of the Other’s field of acquaintance and of the scope and texture of his knowledge” (1962b [1953], 15), these types start at the corporeal level, implying that this is a knowledge which is not intellectual but bodily grounded.

In the present essay, the term “intercorporeity” shall refer to the process through which bodily intersubjective relations develop and shape concrete social contexts and interactions, and, at a larger scale, our everyday lifeworld.

Although Crossley’s intuition concerning the Merleau-Pontyan developments is valuable, the notion of intercorporeity, even in a sociological context, cannot be discussed apart from that of the lived body. Our attunement and resonance with one another are possible due to an intentional background of which our lived bodies dispose. We are corporeally open towards fellow humans, a quality which is possible precisely due to our ability to incorporate meaning configurations and, in a second step, to actualize them. The process of incorporation is

a constant development all along our lives. It starts with the first moments of our existence and becomes more and more complex with different experiential strata we acquire. These strata constantly form our stocks of knowledge at hand (Schutz 1962b [1953], 9; Schutz 1970, 75), our habitus repertoires (Bourdieu 1980) and our concrete possibilities of action and interaction (Goffman 2005 [1967]). A perspective which seeks to defend the role of the body as a main principle in the constitution of our intersubjective relations, with a special focus on the system of relevances as defined in Alfred Schutz's social phenomenology, needs to consider these levels and their interdependency.

How does the lived body reconfigure intersubjective relations and interactions? What is its role when we adopt a phenomenological perspective in sociology which inquires on the role and status of the system of relevances? If relevance in the Schutzian perspective is understood as the mind's selecting activity (Schutz 1970, 13), the intention of the essay is to show with a focus on the phenomenology of the body that this selection process, which leads further to the structuration of our experiences, starts at a corporeal level. The selecting activity is also steadily influenced by other human beings with whom we may interact, as well as by everyday life contexts in which we live. In order to propose a possible answer to this issue, I shall briefly evoke two theoretical views inspired by Merleau-Ponty's phenomenological works.

The first refers to the perspective of the sociologist Robert Gugutzer. Gugutzer uses some of the Merleau-Pontyan concepts in his epistemological program in which he proposes an embodied sociology (*verkörperte Soziologie*) (Gugutzer 2012). He draws attention to a distinction which individualizes and combines two orientations in the sociology of the body. So far as one tries to understand the body and its active role in the construction and constitution of social contexts and interactions, the following two views need to be considered. On the one hand, as Gugutzer argues, the body is a product of society. This refers to "manners (*Umgangsweisen*) of dealing with the body, the knowledge and the images we have of it, as well as the body's sensing [which] are shaped by social structures, values and norms, technologies and systems of ideas" (2004, 6, my transl. D.B.). But on the other hand, "[t]he human body is [also] a producer of society to such an extent that social living with one another and social order are influenced by the corporeality of socially acting and socially influenced individuals" (ibid.). Gugutzer's intention is therefore to highlight our being bodies in our acting. Corporeity is not a passive principle, as it was sometimes claimed in classical sociological perspectives (Bourdieu 1979; Elias (1969) [1939]; Turner 1984). The body responds to social structures and contributes to their active formation.

A similar position is defended by Nick Crossley, who, as previously mentioned, proposes a sociology of the body directly built on Merleau-Ponty's

phenomenological insights. The idea that both sociologists stress remains however that of a body which shapes the social. Such a perspective justifies not only a sociology done to the body, but a sociology which places the body at its center.

Under these circumstances the project of a “carnal sociology” as proposed by Crossley gains importance. Carnal sociology revives the role of intercorporeity and it also revives the principle of a body-subject. As Crossley argues, “carnal sociology [...] addresses the active role of the body in social life. It is concerned with what the body does, and it stresses and examines the necessarily embodied bases of the praxical-symbolic constituents of the social formation” (1995, 43). Another characteristic that both Crossley and Gugutzer stress in their defense of a body-centered sociology is the role of *perception*.

Perception is one of the basic categories in phenomenological analysis and a predilection theme in the phenomenology of the body. Perception is also one of the mechanisms that Alfred Schutz considers when elaborating his theory of intersubjectivity. For instance, the face-to-face relationship, which is in his view the basis for our experiencing otherness and especially for unmediated experiences, relies on our perceptual capacities. It is also perception that grants our fellow humans their quality of being fields of expression (*Ausdrucksfeld*) (Schütz 2004 [1932], 245). Perception is furthermore a property that allows the body-subject to identify in another human being’s behavior meaning configurations qualified as actions. It also facilitates a specific form of corporeal openness that gives the body-subject the possibility to unfold her experiences. Our fellow beings are therefore primarily and immediately experienced through perception which also confirms our intercorporeal display. As Gugutzer argues,

the constitution of sociality is founded in the corporeal being-to-the-world (*Zur-Welt-Sein*) and in the interchangeable corporeally sensitive (*leiblich-sinnlichen*) perception of the social actors. Yet intercorporeity is not only the condition of possibility for sociality; it is furthermore a form of communication [...]. If human beings meet one another, they communicate and interact corporeally (*leiblich*) at a prereflexive level; they perceive one another sensitively (*sinlich*). In the corporeal perspective interchange, they sense the expectation of the other’s behavior better than when they perceive it in a conscious manner. (Gugutzer, 2006, 31, my transl., D.B.)

Perception is thus granted an active role in the constitution of intersubjective relations in that it facilitates the “interchangeability of the standpoints” (Schütz 1962b [1953], 11), but it is also a mechanism of selection. It is a property which gives us even more reason to assert the constitution of the body-subject not as an object anymore, but as a subject within this relation proper. Moreover, playing an active role in the constitution of intersubjectivity as carnal and therefore as

inter-corporeal, perception presupposes, according to Robert Gugutzer, two other levels: that of incorporation (*Einverleibung*) and that of embodiment (*Verkörperung*) (Gugutzer 2006, 32). The first refers to our specific subjective experiential sphere (*Innensicht*), while the second concerns our ability to change external structures and hence is an external aspect of corporeality (*Außersicht*). Being with and being towards the other means an extension of one's body, but also an integration of the other's body in our own. I am not only a body on my own but a "body-to" which tends and extends towards the other, thus embodying the perceived presence of another human being and thereby confirming our corporeal openness. Hence any selection I intend as a subject includes the other. If the background mechanisms of this incorporation are represented, in a first step, by our perceptual capacities and our kinesthetic qualities, through more elaborate processes of socialization, these capacities and qualities gradually change and become loaded with additional layers of meaning. These more complex layers are represented by sign and symbol systems, manners of acting that are culturally formed, or language, which is in Alfred Schutz's view "the typifying medium par excellence by which socially derived knowledge is transmitted" (1962b [1953], 14).

Another element which gives the body a central place in a sociological perspective is the body's relation to *praxis* and, correlatively, to *action*. Alfred Schutz's theory of relevance refers partly to these aspects, among which the second holds an obvious preeminence. However, in his classification of relevance types, when he refers to three categories of relevances, the body plays only a secondary role. The first category of relevance is named by Schutz "thematic"/"topical", the second "interpretative" and the third "motivational". If the first is strongly related to our capacity of isolating an experiential unit as being problematic and unfamiliar in a specific context (Schutz 1970, 26), the interpretative and motivational relevances are related in a more specific manner to our praxis possibilities and actions. What needs to be noted at this point is that despite the productiveness of this categorization, Alfred Schutz does not develop his relevance analysis enough in order to include corporeality. If he considers the role of the body in relation to the system of relevances, it is only in as far as the body represents a lived space, "espace vécu", a term he borrows from Merleau-Ponty (Schutz 1970, 174). Yet the body's quality as a background for our being-with-others and therefore as a possibility in engaging and developing praxis repertoires with other human beings is not explicitly considered. The body is, in Alfred Schutz's view, a guarantee for the subjective position, situating the subject and separating it from others (1970, 175–176). This conception clearly differs from Merleau-Ponty's and from the perspectives in sociology including some Merleau-Pontyan insights (Gugutzer 2006; Gugutzer 2012).

Praxis is a crucial sociological category, very often discussed in sociology in relation to the perspective of Pierre Bourdieu (Bourdieu 1980). In more recent sociological perspectives, partly influenced by phenomenology, bodily praxis (*Körperpraxis*) (Gugutzer 2006, 20) represents one of the possibilities by means of which human beings relate to one another. Bodily praxis manifests itself therefore as an active principle of the social world. The importance of bodily praxis was already stressed in the writings of Merleau-Ponty. For instance, Merleau-Ponty's specific interest in motility, proprioception or behavior confirms a preoccupation with the practical/praxis aspect. These elements were further included and developed in sociological theories drawing on his phenomenological views. An interest in the praxis aspect is also justified by the fact that the existence of the body is an engagement with the world and with other human beings, an engagement that cannot be reduced to processes taking place at the level of consciousness. It is already acknowledged in the phenomenological discourse that consciousness is embodied (Zahavi 2005; Gallagher/Zahavi 2008). Therefore, any act of meaning and any type of intentionality is implicitly correlated to a corporeal dimension. Moreover, sociologically, the practical interest and the position of the body as both the material of praxis as well as its effect (Gugutzer 2004), influences the phenomenological understanding of our actions and the conception of the role that the system of relevances holds in their realization.

To focus on an embodied action rather than on a mentally projected action reverses, for instance, the presuppositions of Schutzian social phenomenology. In Schutz's view, understanding and action accomplishment is mostly correlated to ideal types and typifications (Schutz 1962a [1951], 73; Schutz 1962b [1953], 17–27; Schutz 1970, 56–57) related to routine, familiarity and generalization processes which ground the stock-of-knowledge individuals share. However, what a phenomenological sociological perspective focusing the role of the body stresses is not the character of a type qua ideal, or qua repeatable. The focus is rather on the quality of practicality. Hence the accent is different than in the Schutzian perspective. Ideal types, understood as results of processes in consciousness are replaced by “doing” or practical corporeal types, which are precisely identifiable primarily in their being “practical”, and only secondarily as having the quality of “types”. To recall once more Nick Crossley's view, such a sociological perspective considers that “to understand [...] consists in competent bodily action, whether that be the action of applying a learned mathematical formula or of driving a car. It is an attribute of meaningful and embodied behavior and not of a disembodied consciousness” (1995, 55). In such a perspective, the body acknowledges its status as a milieu for meaning realization, transforming the environment into a world, and more specifically into a socially structured world.

A sociological perspective focusing on the active role of the body needs to combine different levels of corporeality in order to properly describe how the relevance system functions. Praxis is primary among these elements. An inquiry on the practical body and its engagement with and towards others becomes in this context more than necessary because it extends the discussion from the realization of intersubjectivity in terms of intercorporeity to that of an inter-corporality developed at the level of the social world. What both Robert Gugutzer and Nick Crossley stress in their sociological projects is precisely this practical engagement that our bodily existence comprises. Furthermore, in as far as one considers social reality as a meaningful relation between bodies, a relation which is constantly created and questioned, one reaches a phenomenological level. At this level, one can discover other habitual forms that contribute not only to a better understanding of how our action repertoires are formulated and distributed, but more generally to complementary forms of intentionality that condition our relations to other human beings.

Hence, reconsidering the Merleau-Pontyan heritage in a sociological perspective helps to focus some crucial aspects for a social phenomenology, complementing the project advanced by Alfred Schutz. Not only the practical side and our engagement in the world, which involves an engagement with alterity, are of import, but also such concepts as embodied intentionality and operative intentionality which Merleau-Ponty recovers from Husserlian phenomenology revise our engagement with otherness and the realization of intersubjective relations for which the system of relevances plays a crucial role. These elements rehabilitate the status and the implications that the lived body has, first for a conception of the body-subject in terms of horizons of possibility as such, and second, for the role that the quality of “living” has in opening the body-subject towards the others, reformulating the conception of our intersubjective relations.

4 The “Extended Body”

A complementary view that supports the thesis of our intersubjective encounters as being primarily corporeally realized is that of Fuchs/Froese (2012) on the “extended body”, and of Fuchs/De Jaegher (2009) on “mutual incorporation”. Despite its discussion and application in a psychological and philosophical field, the “extended body” thesis carries a major potential for a sociological phenomenological perspective which places the body at its center. This is also supported by the fact that the authors rely partly on the Merleau-Pontyan concept of intercorporeity while elaborating their theory of the extended body, granting particular

attention to action and interaction. They therefore promote an “enactive” approach, which is also defended by other contemporary phenomenologists (Gallagher 2005; Gallagher 2011; Gallagher/Myahara 2011). The two processes by means of which the “extended body” emerges are, according to Fuchs/Froese for instance, our *inter-bodily resonance* and our *inter-bodily memory* (Fuchs/Froese 2012, 212–213). The first process plays a particular role with respect to the production and development of a system of relevances upon a corporeal basis in that it provides the first elements in the realization of a selection in which the I relates to another human being.

According to Fuchs/Froese, inter-bodily resonance is described as a cycle between the expression of an emotion by a human being and the impression it creates for another human being. This contributes to the formation of the extended body, which “may be described as a form of pre-reflective face-to-face interaction, or embodied communication, which is taking place on the basis of” (2012, 212) this implicit inter-bodily resonance. The process termed inter-bodily resonance recalls what in the Merleau-Pontyan view was defined as *embodied intentionality*. It also corroborates another Merleau-Pontyan conception of the lived body as being at the same time object and subject of its living acts. This is due to the lived body’s capacity of experiencing double sensations (Merleau-Ponty 2012 [1945], 95).

Another concept from the phenomenology of embodied intersubjectivity, of import for the present essay, is that of “mutual incorporation” (Fuchs/De Jaegher 2009). This concept complements that of “extended body”. Mutual incorporation is probably even more valuable for a socio-phenomenological perspective interested in the process of selection that constitutes our stock of experiences and of knowledge because it draws attention to the active processes that the body supports in the constitution of our intersubjective relations. In Fuchs/De Jaegher’s view, “mutual incorporation” refers “to the reciprocal interaction of two agents in which each lived body reaches out to embody the other. [...] The other’s body influences our bodily movements and sensations, and vice versa. Thus, face-to-face contact elicits a process of empathic perception which Merleau-Ponty attributed to the prereflective sphere of ‘intercorporeality’ and which he regarded as the basis of social understanding” (2009, 474, 475).

Another conceptual distinction that Fuchs/De Jaegher introduce while defining the process of “mutual incorporation” is that there are different degrees of coordination and synchronization characterizing the interaction proper between the lived body and the other’s body. They speak, for instance, of *unidirectional incorporation*, in which the subject is *coordinating* to (i.e. the case of a blind person who moves by using a stick in order to experience space) while when being engaged in a *mutual incorporation*, the subject experiences a *coordination*

with (2009, 474). For a theory of sociality, the latter notion is essential since it refers to a primary tendency that we develop from early childhood and that is constantly appropriated, negotiated and developed all along our lives. Moreover, mutual incorporation is probably even more significant when defending a view that stresses the primacy of corporeal relations between human beings because it puts a stronger accent on our relational capacities with one another. It highlights the process that our bodies as living bodies co-create in their intentional moves towards one another.

The “extended body” and the perspective of “mutual incorporation” overcome the idea of a “body per se”, suspected of reducing the role of the body to a body-subject. Such a view further confirms that mentalist approaches which try to explain our intersubjective engagement may very often be misleading. To quote once more Fuchs/De Jaegher, “the other’s body influences our own bodily movements and sensations, and vice versa. [...] Interactional social understanding is not an inner modeling in a detached observer, but on the contrary, the other’s body reaches out to my own, and my own reaches out to the other” (2009, 475).

Another essential element in the enactive phenomenological approach which has fundamental consequences for a phenomenological conception of intersubjectivity is that the mechanism of mutual incorporation results in an extension of the lived body, revising the role of operative intentionality. Intentionality justifies and grants the subjective instance a crucial role in the realization of meaning, may that be under the form of an intentionality of consciousness or in the form of a passive intentionality, as it is the operative one. The idea that Fuchs/De Jaegher defend is that operative intentionality, besides its being a quality of corporeality, a feature which Husserl and Merleau-Ponty already acknowledge in their texts, reaches another dimension when considering intersubjective relations. This aspect recognizes alterity in its quality of alterity. “There are now two ‘centers of gravity’ which both continuously oscillate between activity and receptivity, or ‘dominance’ and ‘submission’ in the course of the interaction [...]. This unity of centering and decentering is the presupposition for embodied intersubjectivity” (2009, 476). Within this corporeal movement, operative intentionality gains another level, surpassing the subjective sphere and leading to “joint sense-making” (2009, 477).

The mutual incorporation process leads therefore to a new conception of our face-to-face relationship, recalling a process which in the phenomenology of Merleau-Ponty is named reversibility. Our relation to another human being implies that we are perceived and that we ourselves perceive, that we act upon and that we are in return acted upon; we are thus engaged in a double form of affection (Merleau-Ponty 2012 [1945], 96; Zahavi 2005, 54) – namely, our body is affected by others, but we also affect fellow humans by means of our corporeality

and interaction. These processes are both passive and active and represent basic features of corporeality. Thus, the previously mentioned Schutzian distinction between the body-subject which is associated spatially to a form of a *Hic* and which confronts the other, defined in terms of *Illic*, of a spatial “there”, is obviously questioned by the thesis of mutual incorporation.

Following these ideas, one may finally argue that the body-subject, a concept so often considered in phenomenological debates remains only a theoretical possibility and helps only partially to describe experiential models. In concrete effective relations we are engaged in an altered-body-subject and thus in intercorporeal lifeforms and action possibilities.

5 Conclusion

The aim of this essay was to draw attention to a major phenomenological concept which could re-orient the understanding of the formation of our social and intersubjective relations and exchanges on other bases than mentalist ones. A role of predilection was therefore given to the body in its understanding of a lived body and to intercorporeity. If some attempts in this respect were made by some contemporary sociological approaches, the phenomenological-sociological community remains however divided when defending an approach of how the body shapes our social forms and interactions.

Sociologists who tried to integrate in their theoretical approach concepts such as that of intercorporeity or other major phenomenological ideas on the status of perception and motility often built their theories in contrast to a so called phenomenological approach privileging the role of consciousness or our intellectual capacities. While confronting philosophical and socio-theoretical views, it was intended to show how corporeality qua intercorporeity can complement rather than counterpoise such views, and revise conceptions on the constitution of knowledge in Alfred Schutz’s phenomenological-sociological paradigm with respect of what he defined as “system of relevances”. Therefore, classical perspectives could be further developed in order to defend new conceptions of intersubjectivity and sociality. On the other hand, a recent sociological project as that of Nick Crossley, who advances a carnal sociology, cannot ignore achievements on the role of the systems of relevances in the construction and constitution of our interactions. Hence while “incorporating” these new theoretical developments to more classical ones, the phenomenological perspective in social sciences can gain new levels for a better understanding of how the body shapes social relations and configurations, providing thus new fields of study.

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Factors

Francisco Yus

Relevance From and Beyond Propositions. The Case of Online Identity

Abstract: In recent research, it has been argued that an extension of the relevance-theoretic (and also cyberpragmatic) scope of research is necessary in order to account for elements of communication that do not have a direct link to the relevance of the propositional information being transferred among Internet users, but which are important to determine the eventual (ir)relevance of the act of communication as a whole. Using the relevance-theoretic terminology, ostensive acts of communication online would be covered by the communicative principle of relevance, whereas other *non-propositional effects* and *contextual constraints*, not directly linked to this information transfer, but which matter in the eventual (dis)satisfaction with the outcome of communication, would be covered by the more general cognitive principle of relevance. In this paper, I will show how this extension offers a nice potential for explaining the discursive management of online identity.

1 Introduction

Where does the relevance lie in an act of communication? According to the relevance-theoretic proposal (Sperber/Wilson 1995), the relevance of an input (an utterance, a gesture...) lies in the fact that it offers the highest informational reward (*positive cognitive effects* in its terminology) in exchange for the least amount of mental processing effort. As such, relevance is claimed to stem mainly from information shaped as propositions. As Sperber/Wilson (1995, 57) state, “there is very good reason for anyone concerned with the role of inference in communication to assume that what is communicated is propositional: It is relatively easy to say what propositions are, and how inference might operate over propositions”. However, in my opinion addressees may find relevance in a myriad of interpretations, conclusions and effects, sometimes not overtly intended and often non-propositional. These added sources of information and reward might even constitute the main relevance of the act of communication as a whole. This addition to the main “propositional relevance” is a key aspect if we want to explain why Internet users are glued to their screens and, specifically,

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to explain why certain effects “leaking” from Internet-mediated acts of communication end up relevant for the users’ discursive management of their identity (offline and online). The label “Internet-mediated communication” comprises a whole range of types of interactions, including asynchronous interfaces (blogs, web fora, email, comments to Facebook entries...) and synchronous ones (chat rooms, desktop or mobile instant messaging, Internet-mediated phone calls, videoconferencing, 3D virtual worlds...). Of course, a high speed of transference may generate the feeling that asynchronous forms of communication are quasi-synchronous. And vice versa, typically synchronous interfaces may be used asynchronously, as happens with mobile instant messaging applications, whose users often do not expect immediate replies to their messages.

The chapter is organized as follows: In the next Section, a brief overview of relevance theory is provided. Section 3 is devoted to my proposal of adding two terms to the relevance-theoretic model, namely *contextual constraints* and *non-intended non-propositional effects*. The next Section is devoted to general issues concerning identity and its discursive management. Section 5 is devoted to intentional and propositional acts of online identity management. Finally, Section 6 deals with the role of contextual constraints and non-propositional effects in the eventual relevance of identity-related acts of communication on the Net.

2 Relevance and cognition

Human cognition is relevance-oriented. It dismisses potentially irrelevant inputs and focuses on what might yield benefits for the individual. On an ordinary basis, we unconsciously focus only on what is relevant and draw relevant conclusions by combining new information and existing (i.e. background) information. And this general tendency to focus on relevant inputs is also applied to communication. Indeed, addressees inevitably tend to select the interpretation that produces the highest amount of cognitive effects in exchange for the least effort, often not realizing that other possible interpretations were also possible (but initially not as relevant). This relevance-seeking procedure guides the addressee when turning the schematic literal meaning of the utterances into a fully contextualised and relevant interpretation of an explicit and implicated quality (called *explicature* and *implicature* respectively in relevance-theoretic terminology). But even if verbal communication is the main focus of relevance theory, there is an emphasis that human cognition constantly focusses on what might be relevant, combines existing and new information, and derives conclusions both in communicative and non-communicative scenarios. As Sperber/Wilson (2002, 6) summarise,

the human cognitive system is automatically set up to attend to relevant information in the environment. Our perceptual mechanisms are geared to monitor and select relevant stimuli, including utterances, from the environment. Memory is programmed to select from its vast databases only relevant assumptions that would enable comprehension.

This general tendency is covered by the *Cognitive Principle of Relevance*: “Human cognition tends to be geared to the maximisation of relevance.”

The main idea underlying the cognitive Principle of Relevance is that our perceptual systems are constantly trying to pick up the stimuli which are bound to be relevant; similarly, our background information is accessed in a relevance-driven way, retrieving relevant information in specific contexts, and our inferential systems are geared to the maximisation of the cognitive effects. And inside this general cognitive principle of relevance, there is a sub-principle that is directly applied to ostensive verbal communication (instances of intentional communication whose underlying intentionality is also identified by the hearer), the *Communicative Principle of Relevance*: “Every ostensive stimulus conveys a presumption of its own optimal relevance.” This principle is at work when selecting explicit and/or implicated interpretations. And concerning the latter, they may be arranged on a continuum between *strong* and *weak*. Consider this example (adapted from Carston 2010):

- (1) Tom: How was the party? Did it go well?
Ann: There wasn’t enough drink and everyone left early.
- (2) a. There wasn’t enough alcoholic drink to satisfy the people at the party and so everyone who came to the party left it early, roughly before 2 o’clock.
b. The party did not go well at all.
c. Parties in which alcohol is scarce and people leave early are not good.
d. Ann thinks alcohol is essential in parties.
e. Ann only enjoys herself at parties when she is surrounded by many people.

When Tom interprets Ann’s utterance, the literal meaning of her words is not relevant enough and has to be enriched at the explicit level. In this case, the concept *drink* is adjusted (narrowed) into specifically *alcoholic drink*; the scope of *everyone* is narrowed to “everyone at the party”, and *early* has to be interpreted as the time in their culture in which leaving a party at a certain time is considered early (for instance, 2 o’clock). The resulting proposition would be the explicature in (2a). Of course, as an answer to Tom’s question, she also strongly implicates (2b) (an implicature), in the sense that it is clear that she backs up the derivation of this implicature. This is obtained by pairing the explicature in (2a) with encyclopaedic information about what it takes for parties to be successful (the

information in 2c). However, Tom may also derive further implicatures, this time weaker ones (Ann probably did not intend to communicate them, but these are anyhow triggered by her utterance), such as (2d) or even more unlikely ones such as (2e), this time derived by his sole responsibility.

3 Beyond propositional relevance

Relevance is a comparative notion. Human cognition is capable, on every occasion, of assessing the interest and mental effort of competing propositional interpretations and automatically opts for the most relevant one in a specific context. However, relevance is also variable and subject to contextual features. On the one hand, it may be affected by a number of factors that alter the intended relevance of an input even before it is produced (e.g. said, typed). On the other hand, addressees may find relevance in some inferred information that “leaks” beyond the propositional interpretation intended by the speaker. In order to account for these elements, in previous research an extension of research has been proposed by adding two elements that play a part in the eventual relevance of Internet-mediated communication, but which are not specifically tied to the content being communicated (see Yus 2011b; 2014a; 2014b; 2015a; 2015b; 2015c; 2016a).

Firstly, the term *non-intended non-propositional effect* refers to feelings, emotions, impressions, etc. which are not overtly intended by the “sender user”, but are nevertheless generated from the act of communication, and add (positively or negatively) to the cognitive effects derived from the interpretation of propositional content.

Secondly, Internet communication is also affected by a number of interface-related and user-related qualities that may also alter the eventual relevance of the act of communication, and have an impact on the eventual (un)successful outcome of Internet-mediated communication. These are mainly related to the users’ management of the interface, the kind of relationship existing between interlocutors, the user’s personality, etc. To account for the mediation of these qualities, the term *contextual constraint* was proposed, restricted to aspects that *underlie* the acts of communication and the users’ interactions (i.e. they exist prior to the interpretive activity) and *constrain* their eventual (un)successful outcome. They *frame*, as it were, communication and have an impact not only on the quality of interpretation, but also on the willingness to engage in sustained virtual interactions. Constraints are placed outside communication (i.e. they precede it, framing it), but their influence makes it necessary to include them in whatever analysis is carried out to determine the eventual relevance of Internet-mediated communication. Specifically,

constraints have an impact on (a) how much discourse is produced; (b) what kind of discourse is produced; (c) what kind of discourse is expected (audience validation); (d) what kind of discourse is possible (interface affordances); and (e) what kind of site is preferred (to channel communicative needs).

Needless to say, both non-propositional effects and contextual constraints exist in every act of communication, not only in Internet-mediated ones, but their influence is much more noticeable on the Internet, where interactions are often devoid of physical co-presence and typed utterances often exhibit a cues-filtered quality. And these terms allow us to explain frequent situations such as the one under analysis in this chapter: the management and shaping of online identity (see below).

4 Discourse, identity, and the Net

Identity has been broadly defined as the ways in which individuals and collectivities are distinguished from other individuals and collectivities in their social relations (Jenkins 1996). In this chapter, identity will be conceptualised as typical, constructed, shaped and adapted to different contexts (and exhibiting parallel discursive variability), rather than as inherent, stable and unique (Tagg/Seargeant 2016; Georgalou 2015, 25), although some effects on identity may be exerted unintentionally, see below. This idea of “constructed identity” is in line with theoretical stances such as the ethnomethodological stress on “doing identity” (Bucholtz/Hall 2005, 588). As Tagg (2015, 221) summarises, “identity is not a predetermined, stable property of an individual, but a set of resources on which people draw in presenting and expressing themselves through interactions with others. People actively co-construct and negotiate ‘who they are’, and present themselves in different ways depending on the contextual circumstances in which they are interacting”.

Needless to say, discourse is an essential tool for the shaping and management of identity, both offline and online (Chatora 2010, 21). Human beings tend to get together in social groups providing an essential sense of belonging and involving particular discursive features which work as inherent sources of intra-group identity and also as a means for inter-group differentiation. Also from constructivist approaches such as the one assumed in this chapter, identity has been regarded as a non-stable but inherently interactive phenomenon, since it takes place in specific interactional occasions, yields an array of identities instead of unitary selves and mainly results from processes of discursive negotiation that are eminently social (Yus 2014c; 2015d; 2016b; 2016c; Shophocleous/Themistocleus 2014).

Concerning the relationship and cross-breeding of (discursively managed) online and offline identity, up to five stages have been isolated in previous research:

- (a) *Online identity as irrelevant*. Mainly in the 90s of the last century, when the Internet had hardly any impact on users' identity, since identity in virtual scenarios played hardly any role in people's overall identity.
- (b) *Offline inverted triangle vs. online re-inverted triangle* (Yus 2001). This was typical at the end of the last century, in which offline sources of identity can be pictured as an inverted triangle. The broad top part would be related to broad "inherited" sources of identity such as nationality, race, or sex. The middle part would be related to interactions within groups that the person chooses to belong to and interact. Finally, the narrow bottom part of the triangle would signal the user as holder of a unique identity. As was claimed in Yus (2001), on the Net, this triangle would be *re-inverted*, as it were, since the former broad top of the triangle is narrowed due to the capacity of the Internet to filter out or mask "inherited" social aspects. The middle part would roughly be the same though this time these groups would be sustained online. Finally, the former narrow bottom part of the triangle would now be broadened, due to the possibility to play with different identities online.
- (c) *Real virtualities*. At the beginning of this century a process of growing virtualisation of physical places for interaction was perceived in parallel to a growing importance of online sources of identity management (Yus 2007). Indeed, typical scenarios such as bars and streets started to lose importance for identity shaping (i.e. they became *virtualised*) while, at the same time, people started to rely more and more on the Net for their interactive and socialising purposes, with an increasing impact on these people's identities.
- (d) *The user as a node of intersecting online-offline interactions*. This stage is typical nowadays, with users seamlessly shaping their identities online and offline without differentiating them in terms of strength (Yus 2010, 2011a). Users log onto the Net for socialisation and interactions and then continue these interactions offline, seamlessly jumping from online to offline scenarios.
- (e) *Presumption of online-offline congruence*. This is roughly the same pattern as (d), the difference being that now the user is expected to remain the same unique person in both environments, online and offline. As Zhao et al. (2008, 1819–1820) correctly state, "users regard their online presentations as an integral part of their overall identity production and seek to coordinate their online identity claims with their offline self-performance".

5 Propositional online identity management

A cognitive pragmatics (and cyberpragmatics) of the relevance of identity management for Internet users has to focus on propositionally managed information (Yus 2011a), but also on how non-propositional effects have an impact on the user's self-concept, and on why certain constraints alter the estimation and extent of the relevance of identity-centred acts of communication (see next Section).

Intentional acts of communication are mainly propositional, typically coded as different kinds of verbal discourse, many of which act as tools for identity management (Vásquez 2014, 68). However, there is no reason why the propositional quality of verbal utterances could not be extended to images and pictures such as the ones uploaded on users' profiles, which are devoid of verbal content (Grzankowski 2015). For instance, in Yus (2008), it is claimed that readers also engage in inferential operations in order to work out the intended interpretation of pictures and images. The reader has to infer whether the image has a purely denotative purpose (e.g. linking its decoding to the viewer's mental referent), in which case it would be a *visual explicature*, or it has a non-coded (and wholly inferential) connotative meaning beyond denotation, this time called *visual implicature*. The former is easy to process: the reader simply identifies the visual information and matches it to the most appropriate referent. The latter, on the contrary, is fully inferential and has to be obtained by linking the denotative interpretation of the image and context in order to yield the intended implication. Saraceni (2003, 32) provides an interesting example in a series of panels in a comic portraying a couple celebrating their anniversary:

(3) Scene 1: The couple is sitting, watching TV. She is wearing a striped jacket. He is wearing striped trousers and a checked shirt. The sofa where they are sitting is also striped, as well as the TV.

Scene 2: The couple are in bed. She is wearing striped pyjamas; the wallpaper is also striped. She gets up, looks at her husband sleeping, goes to the window (which has a Venetian blind), pulls down one of the strips of the blind and looks out.

A reader of these panels may well process all of this visual information, identify the prototypical referents of all the images (in terms of *visual explicatures*) and get his/her expectations of relevance satisfied. But these scenes contain a deeper symbolic (i.e. *implicated*) interpretation that cannot be simply inferred denotatively from the images but requires a connotative layer of processing: All the striped lines in the panels represent the tedious monotony in the couple's

relationship and since the Venetian blind is also drawn as a series of straight lines, the girl's bending of the strips of the blind

represents a break in the mechanical regularity that pervades the relationship between the two characters. Also, this break allows the girl to gaze outside and this acquires an extra significance: All the straight lines inside can be seen as the bars of a cage in which she feels trapped.

By means of different types of uploaded (verbal-visual-multimodal) discourse, users *position* themselves as unique individuals (Davies/Harre 2001) and upload content on their profiles with expected audiences and interpretations, a kind of *identity performance* (Chatora 2010, 20–21); and thanks to the affordances of new media, “addressee users” also co-construct, co-produce text in a joint generation of content (Dayter 2016, 17). The user's profile is, therefore, the area where identity is exhibited, shaped and co-constructed socially (Boyle/Johnson 2010, 1392; Bolander/Locher 2015, 100; Cover 2016, 40). As boyd (2008, 129) summarises, profiles can be seen as a form of digital body where individuals must write themselves into being in order to express and represent salient aspects of their identity for others to see and interpret.

Actually, the eventual relevance often lies in this mixture of propositional content creation and propositional reactions to this content. For instance, users often assess another user's Facebook profile and his/her entries by looking at the comments that the user gets, which are regarded as more realistic sources of information about the user than the “enhanced” version that the user often uploads.

5.1 Personal identity

Personal identity is conceptualised in this chapter as the person's awareness of their uniqueness both in physical terms (body shape, inherited bodily traits) and psychological terms (personality, beliefs, opinions, moods). Users manage and shape their personal identities with the aid of uploaded content and the impact that this content has on friends and acquaintances in terms of verbal replies, non-verbal reactions, etc., constituting a very relevant source of information for users beyond the information communicated by this self-related content.

Self-disclosure and self-presentation are essential for personal identity shaping and discourse is essential for this task, especially on social networking sites, since the cues-filtered quality of typed texts demands a greater depth and breadth of self-disclosing behaviour (Trepte/Reinecke 2013, 1102–1104). In fact, according to the Internet-Enhanced Self-Disclosure Hypothesis, adolescents tend

to disclose more through typed text than face-to-face, and the support they get from their peers contributes to their well-being (Gonzales 2014, 198; Huang 2016, 123). Besides, self-presentation is influenced by the qualities of social media and their respective audiences (Bazarova et al. 2013, 122). Papacharissi/Gibson (2011, 46) correctly comment that users edit their discursive self-presentation in a kind of “coherent and polysemic performance of the self that makes sense to multiple publics without compromising one’s authentic sense of self”.

Visual discourses are also essential for personal identity management. An obvious case is the *selfie* and the relevance of the comments that these photos trigger on the user’s profile. Users – especially young ones – use photos in order to promote a desired or hoped for identity, and their friends evaluate and leave comments in response to these photos, providing feedback for these displays (Salimkhan et al. 2010). In Zappavigna’s (2016, 273) words, “a user’s stream of images is an unfolding construal of identity in which the particular phenomena photographed are a presentation of personal style”.

5.2 Social identity

Together with personal identity, social identity is also essential (and relevant) in everyday interactions, both online and offline. Tajfel (1972) defined it as the individual’s knowledge that the person belongs to certain social groups together with some emotional and value significance that this group membership exerts on this person. The individual, by being acknowledged by others, gets his/her identity continuously validated in a society of peers and acquaintances (Xinaris 2016, 64).

As suggested in previous research concerning social networking sites (Yus 2016c), the list of friends provides users with the extent and quality of their social identities (Wang et al. 2010, 321). This is particularly noticeable in profiles owned by adolescents. As Mallan/Giardina (2009) underline, this “friends list” is extremely important for students, “because it demonstrates popularity, proves membership of a social group, marks one’s status and also provides a way of getting to know new people”. Informants in Schwarz (2010) also stressed the importance of the Friends list, arguing that the number of contacts implies that one is socially successful. In a similar fashion, boyd (2011, 43) adds that

by serving as the imagined audience, the list of Friends serves as the intended public. Of course, just because this collection of people is the intended public does not mean that it is the actual public. Yet, the value of imagining the audience or public is to adjust one’s behaviour and self-presentation to fit the intended norms of that collective.

Furthermore, although users exhibit and manage their social identity by uploading verbal, visual or multimodal content that links the user with activities involving peers and collectivities (photos of friends having a meal, teachers gathered at a conference...), very often the main source of relevance lies in the “audience validation” (i.e. its positive reaction), rather than in the quality of the content uploaded. This is so essential that when users upload content, they are constantly predicting their peers’ reaction and also expecting it (Stern 2008, 106; Maghrabi et al. 2014, 370; Vitak/Kim 2014, 466; Greitemeyer 2016, 185). This is especially pervasive in content uploaded by youngsters, always desperate to get legitimation through comments and reactions (Salimkhan et al. 2010). In Manago et al. (2008, 454), several theories are mentioned that fit this idea of selective self-presentation and audience validation: *shared reality theory* (aspects of one’s sense of self derive from public displays of behaviour) and *theory of social comparison* (individuals are more likely to rely on the consensus of others in situations where physical reality is ambiguous).

5.3 Interactive identity

Identity is typically divided into *personal* and *social*. However, in previous research the term *interactive identity* was also proposed (Yus 2014c), a kind of hinge that *feeds* the other two identities. For example, fruitful interactions arising from a user’s new profile photo will impact the user’s personal identity; similarly, a successful interaction involving jargons and innovative vocabulary whose meaning is only available to the group will impact the user’s social identity. In this sense, Koller (2010) proposes a four-block matrix for the analysis of identity that may clarify the role of interactive identity: (a) *individual-personal* (the self as a person, the individual self, who exhibits a specificity and a personal kind of discourse); (b) *individual-social* (the self as a person who interacts with others in the everyday dialogues in which he/she participates); (c) *collective-personal* (interactions of the person in a delimited group, emphasizing the in-group discursive features of the participants); and (d) *collective-social* (interactions with other groups that reveal discursive differences and stress the intra-group bonds). Interactive identity would cover blocks (b) and (c), thus feeding the other identities (a) (mainly personal) and (d) (mainly social) with information arising from sustained interactions.

Several studies have underlined the importance of interactions for identity management. Xinaris (2016, 59) comments that users’ identity needs a network of others for recognition, to the extent that “identity is now, more than ever, located not in an essential self or a fixed body, but rather in one’s relations and communications with

others". Gheorghiu (2008, 67) conceptualises identity as a product of interaction, and in order to differentiate ourselves from others, we have to spend quality time with others. And the experiences arising from these interactions shape the person's identity. In Bolander/Locher's (2015, 102) words, by engaging in interactions individuals "construct their own identities and make assumptions about the identities of others. This process is fundamentally relational in that ties between interactants are created and recreated, shaped, challenged and confirmed" (see also Tagg 2015, 146).

Interactions are initiated and sought either by the user or by the user's friends on his/her profile. Concerning the former, in previous research the term *interactivity trigger* was proposed (Yus 2014c) to account for the fact that very often certain entries are uploaded for the sole purpose of obtaining interactions which shape the user's identity. In Yus (2016c, 79) the following example is proposed, taken from a user's Facebook profile entry and the comments generated by this initial utterance:

(4) User A packs warm clothes.

User B: where to?

User A: to Minnesota...

User C: Say hello to Tom's folks from me!!

User A: I will. Will you be visiting during the holidays?

User D: Hoy lucky and glamorous! Some go to Minnesota and others to Córdoba. We should add "city" so that it becomes more glamorous ;)

User A: Montilla City, lawless city. . .

User E: Have a wonderful trip!

User F: hahaha, you'll never stop!!! hehehe. Enjoy it

In (4), user A provides information about packing the suitcases, but her intention is specifically to raise some replies on the reasons for the trip, destination, etc. Several users join in the good wishes for the trip and user A's identity is immediately enhanced.

Concerning the user's friends' initiated interactions, social media usually include in their affordances a certain amount of non-verbal signals of intended interaction or, at least, of the user's awareness of the initial entry, for example "pokes" on Facebook. These are part of what is generically labelled *paralinguistic digital affordances*, that is, cues in social media associated with a single icon, including also "likes", which facilitate communication and interaction without specific language associated with their messages and which possess phatic connotations (Carr et al. 2016, 387). As happens with other elements in social media, users often ascribe identity-related meanings beyond the initial purpose of this interface affordance.

6 Online identity: A non-propositional account

If we base the eventual relevance of Internet-mediated acts of communication only on the interest and value aroused by the propositional content transferred to other users, we will be unable to explain much of the appeal and the specificity of the Net in terms of user satisfaction and engagement. The aforementioned additional terminology aims to complement propositional relevance so that a valid explanation of user (dis)satisfaction with online interactions may be provided.

As was pointed out above, relevance is centred upon an interplay of interest (i.e. “cognitive effects”) and mental effort, but the extent to which a piece of information ends up relevant depends on a number of elements that are located beyond the interpretation of the propositional content inferred from coded discourses. These elements may decrease the eventual relevance by adding mental effort, or by making the discourse inadequate, and also increase it by adding relevant effects that cannot be obtained only from this propositional information (and which are managed by the cognitive principle of relevance, since human cognition is always geared to obtaining relevance, even if it is located non-propositionally).

On the one hand, we can state that relevance is prone to being affected by a myriad of aspects beyond the information contained in the utterances transmitted virtually, which “frame” the interaction and alter the eventual formula of “cognitive effects vs. processing effort”. These *contextual constraints*, as they were labelled above, may be divided into *interface-centred constraints* (when the design of the interface for interactions has an impact on the user’s mental effort when producing or interpreting Internet-mediated discourses) and *user-centred constraints* (when aspects such as the user’s personality, among others, influence the eventual relevance formula).

On the other hand, users often do not obtain relevance simply from the information provided by the content itself, but also (and nowadays especially) from the feelings and emotions that this content produces in addressee users, often beyond the interlocutors’ awareness. In fact, a lot of the information that is currently sent through the Net is informationally useless. As Miller (2008, 398) correctly claims in his seminal paper on the so-called *phatic Internet*,

we see a shift from dialogue and communication between actors in a network, where the point of the network was to facilitate an exchange of substantive content, to a situation where the maintenance of a network itself has become the primary focus. Here communication has been subordinated to the role of the simple maintenance of ever expanding networks and the notion of a connected presence.

The kind of effect that is important in this case is the one which exhibits a non-intentional and non-propositional quality, sometimes adding to the relevance of the propositional information and, crucially, often making up for the “objective irrelevance” of the information contained in the discourse communicated, that is, the lack of relevance that the actual information contained in the text provides to the user. Again, these effects may be produced from interactions with the interface or from interactions between users. These will be briefly commented upon below.

6.1 Interface-centred contextual constraints

The design of the interface and its usability have an important impact not only on the effort that has to be devoted to obtaining information from the site, but also on the willingness to interact with other users through that interface. The arrangement of links, the congruence between the link-mediated discourses, the existence of tabs or frames directing navigation, etc. influence the final relevance by increasing or decreasing mental effort (Yus 2014a).

In general, identity-related acts of communication are constrained by the site’s affordances and the changes introduced by the company to make it more interactive or social (Marwick 2005). This is the case of Facebook, which initially only had the “wall” for interactions on content uploaded, but now has an integrated area for instant messaging. Graham (2016, 310) points in the right direction when stressing the link between technological constraints of the interface and identity management, since certain digital environments offer more options for the interactive co-construction of identity and relationality.

6.2 User-centred contextual constraints

The eventual relevance of Internet-mediated acts of communication may also be affected by the user’s attributes and motivations. Somehow in-between interface-centred and user-centred constraints we can list the user’s familiarity with the interface and its menus, frames, etc., together with the user’s task when using the web (the expectations of relevance are different when one is looking for a specific piece of information or just browsing content without a purpose).

Undoubtedly, the most important contextual constraint is the user’s personality and its online/offline interface. As was pointed out above in passing, nowadays, the user is expected to exhibit some congruence between online

and offline identity (Zhao et al. 2008, 1817). However, users tend to present an enhanced version of their selves and the act of presentation, even if faithful to the user's offline identity, is always constrained (qualitatively and quantitatively) by the user's personality, self-esteem, strength of ties, feelings and emotions (Manago/Vaughn 2015, 198; Michikyan et al. 2014, 180; Emanuel et al. 2014, 147; Scissors et al. 2016, 1502–1503). Hollenbaugh/Ferris (2015, 458) write that extroversion is typically linked with publication frequency, and narcissists are likely to use Facebook intensely in order to get the feedback that they need for satisfaction. The same applies to users with lower self-esteem, typically using Facebook in order to obtain a stronger emotional connection to the social network. Winter et al. (2014, 195) also comment that extraverts benefit the most from using social media since they are able to extend their networks and pursue their communication needs (the so-called *rich-get-richer hypothesis*), whereas introverts have also been assumed to benefit since these platforms allow for a compensation of their communicative deficits in the management of interpersonal contacts in a comfortable way (as claimed by the *social compensation hypothesis*).

Finally, the user's content uploaded is also constrained by general expectations of conformity to norms and group-related expectations. This is especially the case of young users, always eager to find ways to leave a positive impression on their audiences, and in the process they are constantly monitoring what their peers expect from them (Siibak 2010). This idea is related to two kinds of self-construal: *independent self* and *interdependent self* (see DeAndrea et al. 2010, 427). The former underlines the need of being autonomous and different from other people, whereas the latter emphasizes desire of conformity and assimilation with the group. Needless to say, these kinds of self-construal influence the quantity and quality of self-related information, with users typically complying with other user's expectations (Cheung et al. 2015, 286; Mascheroni et al. 2015; Shim et al. 2016, 532). As Chatora (2010, 19) summarises,

identification with others depends on individuals subscribing and adhering to the modes or codes of acceptable behaviour of that group. People evaluate and monitor themselves in relation to the people around them and because of this self surveillance people become conscious of their behaviour in relation to societal norms and values.

6.3 Interface-centred non-propositional effects

The use of an interface may produce a number of non-propositional effects in the user. In general, the ability to use the menus, frames, tabs, links, etc. properly

generates an offset of positive effects in terms of self-concept, while an interface lacking the necessary degree of usability may increase mental effort gratuitously, thus affecting the user's feeling of control over the interface.

6.4 User-centred non-propositional effects

In a pragmatic analysis of virtual communication, non-intended non-propositional effects are often the key to an explanation of why Internet-mediated interactions turn out (ir)relevant regardless of the actual value of the content transferred to other users. Several of these effects have an impact of the user's self-concept or overall sense of identity. Among others, the following may be listed:

- (1) Feeling of connectedness, social awareness, feeling of being part of the interactions and friendships. Many users engage in “chained” acts of communication (typically trivial ones) because they eventually obtain an awareness of friends and peers and a feeling of connectedness. What used to be obvious in situations of physical co-presence is managed nowadays through persistent online interactions, many of which are casual and the information transferred through these interactions often lacks interest from a purely objective point of view. The notion of *ambient awareness* (Thompson 2008) points in this direction, since it refers to an awareness of the others arising from non-stop dialogues and uploaded content, often fragmentary, which nevertheless gives users a more or less thorough picture of their friends (Lin et al. 2016). According to Levordahska/Utz (2016, 147), the term “ambient” emphasizes “the idea that the awareness develops peripherally, not through deliberately attending to information, but rather as an artifact of social media activity”. In this sense, although it is assumed that browsing social media is sufficient for awareness to develop (typically non-consciously) even in the absence of intentional communication directed at others, my opinion is that today's pressure to send messages compulsively also has to do with an attempt to obtain other users' awareness of the initial user. This would be the case of text messages, but also of images and photos (e.g. selfies or photos of dishes, landscapes, etc.) that are meant to generate a sort of “presence in the absence” (Zappavigna 2016, 272).

Furthermore, there is a fear in users of being unnoticed, of not being acknowledged and of missing the conversations that are taking place somewhere on the Net, what has been generally labelled “fear of missing out”, which also triggers massive postings as indicators of presence and of the user's non-stop connection.

- (2) Feeling of being noticed by the network of friends, by the user's community, of feedback, of social support. Sustained interactions not only generate connectedness, but also feelings of in-group membership and communal support, of being "attached" to the other members of the group (Yus 2007), that is, an awareness of "the group members' affective connection to and caring for a virtual community in which they become involved" (Cheng/Guo 2015, 232). Carr et al. (2016, 386) emphasize the importance of social support for Internet users, conceptualised in this chapter as a genuine non-propositional effect. This is especially the case of adolescents, with a need of being socially valued.
- (3) Generation of social capital. The term refers broadly to the benefits we receive from our social relationships (Steinfeld et al. 2008, 435), the resources linked to membership in a group or network of relationships, facilitating actions among these members (Quinn 2016, 584). It is typically divided into *bridging* and *bonding*. The former is accumulated from interactions with weak ties, whereas the latter is found in strong ties and relations, for instance close friends and relatives. In this sense, virtual interactions aid in producing social capital that would otherwise be impossible if people only relied on physical co-presence for its generation. Indeed, one's ability to form and sustain relationships lies at the heart of the capacity to build up social capital, and nowadays the Net is the main scenario for its generation.
- (4) Feeling of increased mutuality of information among friends and acquaintances. According to relevance theory, the goal of human communication is not so much the mere transfer of information to others, but to generate a mutuality of this information (a *mutual manifestness*, in its terminology). The mutual satisfaction at sharing may be itself a source of satisfaction beyond the quality of the information exchanged (Parks 2011, 139).
- (5) Feeling of enhanced/decreased self-esteem and generation of positive/negative emotions. Finally, another positive/negative non-propositional effect has to do with self-esteem as managed and shaped through virtual interactions. On the positive side, virtual interactions may increase self-esteem. Barker (2009, 210) comments that Facebook may be of particular benefit to users experiencing low self-esteem, since they are usually less secure in face-to-face contexts and therefore feel more relaxed in cues-filtered virtual scenarios. Besides, the aforementioned "enhanced self" may aid in increasing self-esteem. As Cho (2014, 203) asserts, users usually post their good aspects in a kind of self-verification process. Eventually these good aspects will generate a good image of a person and be more attractive among their close friends as well as their weak acquaintances. Furthermore, in several studies cited in Song et al. (2014, 447), Internet use was associated with decreased depression and loneliness and with significantly increased both self-esteem and social support.

On the negative side, the user may end up with an offset of effects related to decreased self-esteem. For example, Manago (2015) mentions that the typical emphasis on popularity that abounds on the Net could devalue the importance of close, intimate relationships as contexts for identity development, especially in the case of young people's lives. Instead of seeking belonging within smaller, intimate groups, young people may increasingly seek acceptance within large, shallow networks, which demand the promotion of a socially desirable self, thus turning into a pressure for their identity management. Similarly, unhappiness tends to result from users negatively comparing themselves with other people's status updates, making them feel envious or depressed (Korpijaakko 2015, 27; Greitemeyer 2016, 185; Stronge et al. 2015, 202).

7 Concluding remarks

The interplay of propositional relevance, contextual constraints and non-propositional effects is, in my opinion, an important means to understand why certain, apparently irrelevant acts of Internet-mediated communication arouse so much interest in Internet users. As has been analysed in this chapter, the relevance of identity-related acts of Internet communication are also at work across the propositional/non-propositional and intentional/unintentional board.

Furthermore, the analysis proposed in this chapter allows for a pragmatic explanation to several social issues that are a focus of sociological attention nowadays. Take, for instance, the tendency to use instant messaging texts instead of phone calls when communicating with others, or the tendency to look at the mobile phone screen constantly instead of paying attention to the person sitting opposite us (*phubbing*). The interplay of constraints and sources of relevance, both propositional and non-propositional, allows us to explain these phenomena. In a nutshell, as was proposed in Yus (2016d), an explanation would be that, compared to one-to-one, face-to-face communication, mobile-mediated communication entails more positive contextual constraints and generates more positive non-propositional effects associated with that virtual interaction. Indeed, using typed text instead of oral communication is positively associated with constraints such as (a) immediacy of communication, constant connection; (b) lack of imposition on addressee's reply; (c) non-compulsory commitment to the conversation, no need to sustain long interactions; (d) ability to plan and design messages; (e) chance for shy users to control how much information is provided, especially of the non-verbal, "exuded" kind; and (f) ability to engage in playful text-image combinations.

Besides, typed text generates a number of positive non-propositional effects, some of them identity-related and often beyond the user's awareness, which are absent or at least not so strongly felt in face-to-face interactions, including (a) feeling of connectedness, of mutual awareness; (b) feeling of being acknowledged by group of peers; (c) feeling of "connected presence" from having lots of synchronous conversations despite the physical distance; and (d) feeling of group membership, of being part of a community of users and of socialisation therein.

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David N. Rapp and Matthew T. McCrudden

Relevance Before, During, and After Discourse Experiences

Abstract: Relevance plays an important role when we prepare to read, during our reading activities, and even after reading is completed. The current chapter highlights empirical research on this role for relevance based on work in cognitive and educational psychology. Multi-method projects from these fields have usefully identified the underlying cognitive processes enacted as readers engage with texts, as well as the behavioral consequences of those processes. The accumulating findings have informed understandings of the nature of our discourse experiences. The goal of this work, and the current chapter, is to provide a theoretical account of relevance as related to discourse comprehension and production, as well as to support the design of instructional activities and interventions.

Our goals, expectations, interests, and preferences exert critical influences on our attention to, decisions about, and comprehension of information, for even the most routine of our everyday experiences. Consider the following: When we skim a chapter, looking for the most critical or novel ideas, we attend to particular elements of the contents while downplaying or ignoring others. Identifying healthy food choices necessitates taking careful, strategic notice of ingredients that will support our dietary intentions, or that should be avoided when they offer little nutritional value. And deciding who to vote for during an election year involves considering which candidate best represents our core values, sometimes even after their behaviors and statements might seem to contradict a particular political stance. These examples highlight how the topics and content comprising our daily dealings regularly receive more or less attention depending on what we wish to gain from the information we are presented with and seek out.

People tend to focus on and expend more mental resources considering information that is relevant as compared to information that is less relevant or irrelevant to their particular goals (McCrudden/Schraw 2007; Kaakinen/Hyönä 2011). Relevance can be defined as the degree to which informational contents or features are associated with successful completion of a task. People, for example, often focus on the aspects of a written presentation or the productions of a particular interlocutor when those linguistic contents and utterances connect to

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their goals for the task. To do this they consider whether the information is relevant to what they hope to accomplish for the activity (McCrudden et al. 2011; Wilson/Sperber 2004). Similarly, people may actively ignore particular productions, speakers, and sources that they deem irrelevant; for example, they pay less attention to content unrelated to or believed to be of little benefit for completing a task (Andrews/Rapp 2014; Peshkam et al. 2011). The current chapter focuses on the role of relevance for these kinds of discourse experiences, and in particular, on reading. This focus is due to (a) the rich empirical literature from cognitive and educational psychology on the effects of relevance for text processing and comprehension, (b) the view that reading is a routine and core activity we engage in to acquire information and learn about the world, and (c) our own research projects in the area. Importantly, many of the claims derived from work on reading are argued to generalize to other discourse experiences (e. g., conversation; visual presentations) that constitute our everyday interactions with information and with others (e. g., Gernsbacher et al. 1990).

Much of the empirical research on relevance in psychological domains focuses on how it influences the processes and products of reading comprehension (e. g., Graesser et al. 1994; Kaakinen/Hyönä 2011; Magliano/Graesser 1991; Rapp/Mensink 2011; van den Broek et al. 2001; Zwaan 1994). Processes here refer to the ongoing, moment-by-moment activities that take place during reading. These include basic processes such as identifying letters and establishing syntactic frames, and higher-order processes including, but not limited to, where and how individuals focus their attention, the encoding and retrieval of information into and from prior knowledge, and the generation of inferences that go beyond what a text explicitly describes. All of these processes operate in the service of comprehension, as readers attempt to ascribe meaning to text content as relevant to their goals. Products here refers to the consequences of these processes, which includes resulting memory for what was read, and judgments and decisions that might be derived by considering previous content. Products are often, but not always, the observable consequences of processes.

With respect to the current volume, examinations of processes and products have identified how and when participants make decisions about what is relevant, the kinds of comprehension strategies that readers enact given their goals and tasks, and how unfolding reading experiences dynamically influence decisions and evaluations (e. g., Rapp/van den Broek 2005). The goal in much of this work has been twofold: First, researchers attempt to build accounts of the precursors to and effects of relevance for comprehension, in efforts to better understand its role in comprehension. Second, researchers attempt to identify factors that support or challenge contemporary considerations of relevance as they might relate to instructional and leisure activities.

The focus of the current chapter, in light of the above considerations, is on the role of relevance at different points of a reading experience. In line with previous work, we divide these points into three focal periods – prior to reading, during a reading experience, and after reading is completed. In what follows we summarize previous research that considers how relevance might be construed by a reader, how considerations of relevance are implemented in the service of accomplishing reading goals, and the processing patterns and consequences of relevance for each of these focal periods. Thus, our chapter is intended as an introduction to the empirical examination of relevance as conducted in the psychological and educational sciences, as well as an overview of the ways in which relevance exerts an influence on our comprehension experiences.¹

1 Before reading

Reading is an inherently goal-directed activity; we do it for some purpose. As such, our goals shape what we seek from a text. Sometimes our goals are general and not necessarily tied to specific information in the text, such as when we read for entertainment while resting in the warm summer sun. In these situations, we might seek mental stimulation or the opportunity for a vicarious experience. In other situations, our goals may be very specific, such as when we need to understand why polar bears have white fur whereas grizzly bears have brown fur, or when we want to identify the benefits and side-effects of a particular medical treatment. For this latter type of reading, we aim to reduce or eliminate a discrepancy between what we know and what we want to know. Some information more adequately addresses a discrepancy than other information; that is, some information is more *relevant* to our concerns and goals.

When we read for an assigned task, which is quite common in educational settings, task instructions are pre-planned. This occurs when students in a literature course are asked to read a novel to identify recurring themes, or when students in a science class are asked to answer questions before they read to activate their prior knowledge about a topic and direct their attention in the text. As these cases exemplify, task instructions can signal the relevance of text information in relation to a goal or purpose for reading. Instructions can give readers criteria or standards for determining the relevance of text information in relation to

¹ Recent discussions of the role of relevance that provide a broader, extended overview than offered here appear in the edited volume by McCrudden et al. 2011, and chapters in Rapp/Braasch 2014. We refer the reader to those books for additional discussions and proposed models beyond the scope of and/or that complement the current chapter.

their goals. These *standards of relevance* can affect the extent to which readers process different ideas or information within a text (McCrudden/Schraw 2007; McCrudden et al. 2011; van den Broek et al. 2001).

Interestingly, standards of relevance can be so powerful that individuals who read the *same* text, but who receive *different* task instructions, can show different patterns of moment-by-moment processing, with different memory for the text. Memory here specifically refers to both the stored information that a reader might opt to use if encouraged or driven to do so, as well as the specific, actively retrieved information that individuals work with to solve problems and make decisions. A mixed methods study by McCrudden et al. 2010 helps to exemplify this distinction, as well as characterize the effects of pre-reading task instructions. The first, quantitative phase of the study involved an experiment. All participants read a text about four remote countries, including Pitcairn and Honduras. The text described various features of each country including its location, geography, climate, history, government, economy, transportation, and language. Participants were randomly assigned to one of three conditions and given different pre-reading task instructions. Students who received the *Pitcairn* task instructions were asked to imagine that they would be living in Pitcairn for several years and to focus on information that would help determine the positives and negatives of living in that country. Students who received the *Honduras* task instructions were asked to imagine that they would be living in Honduras for several years and to focus on information about Honduras to determine the positives and negatives of living there. Students in the *control* condition were asked to read for understanding and were not given instructions highlighting a particular country as relevant. The text was presented on a computer screen, one sentence at a time, with participants' reading times per sentence recorded. These data were used to assess moment-by-moment focus during reading. When participants finished reading, they were asked to recall as much of the text as possible, to assess their memory for the material.

The reading time data showed that participants spent more time reading information that was relevant to their pre-reading task instructions than reading information that was not relevant to those instructions. Specifically, participants who received the Pitcairn task instructions spent more time reading Pitcairn than Honduras information, while participants who received the Honduras instructions spent more time reading Honduras than Pitcairn information. Their attention was directed to information specifically related to the instructions. Further, participants in the control group did not differentiate between the two types of information, spending approximately the same amount of time reading content associated with both Pitcairn and Honduras. These findings indicate pre-reading task instructions affect readers' moment-by-moment processing, guiding attention to content associated with instructionally-set goals (also see Lewis/Mensink 2012).

The recall data also showed that participants recalled more information relevant to their pre-reading task instructions than information that was not relevant to those instructions. Specifically, participants who received the Pitcairn task instructions recalled more Pitcairn than Honduras information, while participants who received the Honduras task instructions recalled more Honduras than Pitcairn information. Participants in the control group showed no difference in their recall of either type of information. Thus, pre-reading task instructions affect readers' memory for text, such that they recall information relevant to those instructions. These combined reading time and recall findings indicate that instructions result in complementary effects for reading processes and products.

In the follow-up, qualitative phase of the study, interviews with participants in the experimental conditions revealed that while people generally focused on task-relevant information derived from the pre-reading instructions, they often differed in their attention to task-*irrelevant* information. Some participants directed little attention to task-irrelevant content. For instance, one student said, "I focused more on the sections that dealt with Honduras and quickly went over the rest of it because it wasn't as relevant or didn't seem as relevant" (McCrudden et al. 2010, 236). In contrast, other participants focused on both task-relevant and task-irrelevant information. For instance, one student said, "I focused on the comparison of the other countries to Pitcairn. I took Pitcairn and I read all this other information and then I sat there and I compared and contrasted the other three countries to Pitcairn" (McCrudden et al. 2010, 236).

These interview data were corroborated and exemplified by the reading time and recall data. Consider that some participants stated in their interviews that they focused on both task-relevant and task-irrelevant information. These participants actually spent more time reading task-irrelevant sentences, and also recalled more task-irrelevant information, than did participants who reported focusing almost exclusively on task-relevant information. While the results highlight that instructions affect processing and memory, readers who receive the same instructions for the same text may also interpret and/or implement those instructions differently, as illustrated by people's reports and actual attention to task-irrelevant content.

These findings suggest that instructions help people focus on usefully relevant information, and that attention to irrelevant information can differ depending on the strategies and approaches that a reader adopts for a text. This raises the question of what happens when readers are specifically asked to avoid distracting information. Distracting information might problematically draw attention away from more critical content, and thus, the degree to which attention might be guided by instructions to prevent such distraction is a crucial consideration (Lehman et al. 2007). For example, textbooks often include information

or visuals to spice up the content, with the aim of increasing reader engagement with the materials (Harp/Mayer 1997; Harp/Mayer 1998; McCrudden/Corkill 2010). Suppose a science teacher asks students to read a passage about how lightning forms. The textbook might include interesting information that is actually irrelevant to understanding the process of lightning formation, but intended to engage readers. This could include details such as, “Eyewitnesses in Burtonsville, Maryland, watched as a bolt of lightning tore a hole in the helmet of a high school football player during practice. The bolt burned his jersey, and blew his shoes off. More than a year later, the young man still won’t talk about his near death experience” (as developed for use in research by Harp/Mayer 1998). Although people may find these details interesting and engaging, they are irrelevant for attempting to understand the process of lightning formation.

What can be done to encourage readers to specifically avoid irrelevant elements of texts? A study by Peshkam et al. 2011 investigated whether particular instructions might help readers focus their attention away from irrelevant information during reading. Four different types of pre-reading instructions were contrasted: (1) Participants in the *specific relevance* instruction condition received six pre-reading questions and were told the questions might help them understand the text; (2) participants in the *specific irrelevance* instructions condition received the same pre-reading questions, but were told that they would not help them understand the text; (3) participants in the *general irrelevance* instruction condition were warned to avoid irrelevant information because it can interfere with comprehension; and (4) participants in the no instructions condition did not receive any instructions beyond the introduction to the task that all participants received, which asked them to read the text carefully and that they would be given a test about it afterwards. These conditions allowed the researchers to examine whether particular task instructions would help readers avoid irrelevant information.

Further, Peshkam et al. examined whether the specificity of those different instructions would differentially affect moment-by-moment processing and memory for the text. In Experiment 1, participants read a text about the effects of space travel on the human body; in Experiment 2, a different group of participants read a text about the process of lightning formation. Both texts included *seductive details*, which are interesting pieces of information that are *not* important for understanding a text’s overall meaning (e. g., “Monkeys helped pave the way for space travel by humans by providing valuable information about the effects of space travel on living organisms. In fact, their participation was celebrated with parties in the woods after returning with lots of bananas and room to swing endlessly from trees.”) (Garner et al. 1989; Lehman et al. 2007). The respective pre-reading questions pertained to those seductive details (e. g., Where were the monkeys thrown a party?).

In Experiment 1, participants in all four groups spent more time reading seductive details than base sentences (i. e., ideas that were important for understanding a text's overall meaning), with no reading time differences between the groups for those seductive details. The seductive details were therefore more salient to readers than were the base sentences, and the irrelevance instructions failed to make them less salient. However, participants who received the general irrelevance instructions subsequently *recalled* fewer seductive details than did participants in the other instructional conditions. In Experiment 2, participants again spent more time reading seductive details than base sentences; however, participants who received the general irrelevance instructions did not spend more time on seductive details. With respect to the recall data, participants who received the general irrelevance instructions again recalled fewer seductive details than did participants in the other conditions. Thus, general irrelevance instructions affected moment-by-moment processing and memory for the text, helping readers avoid unimportant but interesting information in contrast to performance observed in the other conditions.

Combined, these results indicate that general warnings that information in the text is irrelevant can be more effective than instructions highlighting specific text contents. Because general irrelevance instructions are vague, they are unlikely to activate or prime knowledge related to specific information that readers should avoid thinking about, preventing unwanted attention to those materials. Thus, readers are less likely to already be contemplating potentially irrelevant information prior to reading. In problematic contrast, specific instructions might actually pique interest in upcoming topics by simply introducing them, drawing attention when the goal was to discourage it.

We have described the above results to highlight how task instructions can affect considerations of relevance *before* a reading experience. In the next section, we consider how factors that unfold *during* a reading experience play an important role in helping people determine what is most relevant as they read.

2 During reading

In many situations, people make determinations about specific elements of texts as a function of instructions or guidelines that surface not just *before* they read, but *as* they read. For example, halfway through a reading assignment, an instructor might ask students to determine whether concepts that were discussed previously connect with recently presented information. Or someone looking over a newspaper editorial might be asked by a family member to describe what they are currently reading, which leads to decisions about what to summarize. For these

kinds of situations, the findings outlined previously with respect to the role of relevance before reading are obviously appropriate. The instructions and tasks that readers take on while working through a text guide attention to what is considered most relevant, help readers determine what to discount or ignore, and can encourage reflection about information already encoded into memory. So what we know from previous work on instructions and goal-setting generally should also prove useful for analogous situations that emerge during a reading experience.

Readers also make various determinations about relevance as texts unfold. For example, a reader engaged with a text can establish that some of the content is less crucial than other content for building the kinds of understandings they seek. This regularly occurs when students study for exams, when researchers and theorists consult research publications, and when people leisurely peruse novels and magazines. As a reader's understanding of content develops, and as they grow more familiar with what they are reading, they make more informed decisions about the elements of the text they should allocate more or less attention to. Unlike instructions that set the stage for expectations about how to proceed through a text, decisions about relevance like these arise during a discourse experience through interactions with the content. Importantly, like instructions, emerging decisions about relevance influence the kinds of processes that are applied during reading (e. g., attention allocation; inference generation; rehearsal of content; visual imagery; etc.) (Anmarkrud et al. 2013). But unlike instructions, relevance considerations during reading need not be preplanned; they can be grounded in the ongoing interactions between a text and a reader.

During reading, individuals might receive explicit instructions from an external source or even from within a text that prescribe considerations of relevance. Textbooks, for example, include study questions peppered within the content that provide prompts for contemplating core concepts. Authors of fiction can analogously include explicit remarks or comments conveyed by story narrators and characters that indicate when or how aspects of the plot should be attended to more closely.² These examples demonstrate that readers utilize directed cues during reading to motivate consideration and reconsideration of particular aspects of a text's contents as relevant or irrelevant for comprehension.

But sometimes cues that motivate considerations of relevance during reading are quite different from explicit instructions. Consider the following story:

² A clever author might even do this in efforts to confuse or distract readers from important story elements so as to make the plot more suspenseful or surprising, as occurs in mystery novels and thrillers.

Charles was running for a seat on the Senate. The New York Times put his lackluster campaign several points behind in its final poll. Today was Election Day, and people were coming out to vote. At the end of the day, the ballots were tabulated and the outcome declared.

In a series of experiments, Rapp/Gerrig 2006 had participants read multiple stories like this, followed by an outcome sentence. Participants were asked to judge whether they believed the outcome was likely to happen. After reading the stories (and again, the example above is just one of the stories people read with the effects to be described observed across the materials), participants tended to agree much more with the outcome “Charles had failed in his bid to become senator” than the outcome “Charles was successful in his bid to become senator”. The claim was that readers’ expectations for what would happen next relied upon information that could inform those expectations. The most relevant information in this particular story involves the New York Times poll, which provides the context for a probable election victory. Importantly, some participants read a version of the story in which that contextual sentence read “The New York Times put his efficient campaign several points ahead in its final poll.” In this case, participants were more likely to agree with an outcome indicating that Charles would succeed rather than fail.

The instructions asked participants to contemplate the appropriateness of story outcomes, drawing their attention to elements of the texts that would inform their inferences and expectations about subsequent story events. What was relevant depended upon readers’ decisions about what would matter most for the circumstances described in the stories, whether it involved election decisions, determining the winner of a marathon race, evaluating the likelihood of a job promotion, or appraising the palatability of a birthday cake. Thus, the relevance of particular sets of information in the stories influenced readers’ judgments of the likelihood of story outcomes.

Follow-up experiments indicated that other types of information can influence what people consider relevant for making their decisions, and their subsequent expectations about future story events, in interesting and sometimes surprising ways. As an example, consider a version of our previous story about Charles that now includes additional information:

Charles was running for a seat on the Senate. Charles had worked hard to help the underprivileged and underrepresented have a voice in government. The New York Times put his lackluster campaign several points behind in its final poll. Today was Election Day, and people were coming out to vote. At the end of the day, the ballots were tabulated and the outcome declared.

This text differs from the earlier version with the addition of the second sentence intended to instantiate a preference for Charles to succeed. It is important

to note that this positive preference contrasts with the failure that the text indicates should happen, based on the newspaper poll. Overall, participants who read this text were again more likely to agree with an outcome indicating that Charles would fail as compared to an outcome indicating Charles would succeed. But that difference did not emerge to the same degree as was observed with the earlier version of the text that omitted the second sentence. With the inclusion of that sentence, some participants actually now believed Charles *would* succeed. Similar effects emerged with respect to preferences for failure outcomes: When Charles was described as being corrupt rather than a voice for underprivileged constituents, some participants were more likely to agree with the outcome that he would fail, regardless of the New York Times poll. What readers wanted to happen, as associated with preferences instantiated by that second sentence, were no longer based on expectations derived only from the contextual supports in the texts.

The explanation for these findings, again, is that the content that readers found most relevant for their decisions influenced their judgments for outcomes. Statements providing an indication as to the likelihood that an event should occur (e. g., the results of a political poll; the distance left in a marathon; work productivity; the care with which someone bakes a cake) offer useful evidence for whether that event will take place. When readers feel neutral or ambivalent towards characters and events (which one might argue is rarely the case), relevant information for generating predictions about story events usually focuses on contextual evidence for event likelihoods. But readers' wishes and desires for what they want to happen, derived in the experiment described above from beliefs about whether characters should succeed or fail, also matter. When readers hope for particular events, based on pre-existing beliefs or emerging from story encouragements, plot elements associated with those hopes become especially relevant (also see Rapp/Gerrig 2002).

We've described these experiments to emphasize two important points. First, the contents of text materials can vary in the degree to which they are considered more or less relevant to a reader's goal of comprehension. Second, what readers might consider relevant can change dynamically over the course of a reading experience. Readers may opt to consider particular elements of a story as critical to determining what will occur next, and what they consider critical can change as they acquire new information from the text.

Another example of how relevance can emerge over the course of a reading experience can be seen in work on people's seeming reluctance to engage in careful evaluation of text contents. A host of projects have convincingly demonstrated that when people are presented with inaccurate information, those inaccuracies can influence subsequent decisions (e. g., Ecker et al. 2011; Gerrig/

Prentice 1991; Marsh et al. 2016; Marsh et al. 2003; Rapp 2008; Rapp 2016). Most problematically and perhaps surprisingly, this occurs even when participants should know better; despite possessing relevant background knowledge, people can defer to the inaccuracies they have just read rather than their existing, appropriate understandings.

One set of projects demonstrating this effect asked participants to read stories in which characters discussed a variety of topics unrelated to the core plot (Rapp et al. 2014, based on materials from Marsh 2004). Included in these mundane discussions were several objectively true or false statements, which prior norming established participants should know to be true or false. For example, in one of several stories participants were asked to read, characters discussed their recent travels around the world. One paragraph in the story read:

Let's see...what else did we do? We seemed to spend a lot of time visiting Shirley's relatives. That's why we had to go to Russia, because her family lives in the capital city St. Petersburg. I had made such a fuss about missing the mosques in Morocco that she let me see the Kremlin while we were in Russia.

After reading these stories, participants took a quiz that included many trivia questions, with some questions related to ideas presented in the stories. For example, one question asked, "What is the capital of Russia?" The correct answer, of course, is Moscow. But the text that participants just read, as in our example, might have presented incorrect information (e. g., St. Petersburg). Participants' responses to these questions indicate whether they might rely on information they read even when it was incorrect and they should already know the correct answer.

Across many replicated experiments, participants have been shown to rely on the inaccurate information presented in stories. That is, participants sometimes incorrectly write "St. Petersburg" to answer the quiz question. And participants are more likely to produce that incorrect response after reading inaccurate information than after reading an accurate version of the statement (e. g., "That's why we had to go to Russia, because her family lives in the capital city Moscow."), or after reading a version that did not provide clarifying information to answer the question (e. g., "That's why we had to go to Russia, because her family lives in the capital city."). Even more problematically, some experimental findings have indicated that participants might confidently indicate they knew the answers to the questions based on prior knowledge, even though it is unlikely they ever read or learned that information outside of the experimental session (Marsh et al. 2003).

While a variety of situations are ineffective at helping people reduce this reliance on inaccurate information, one manipulation that has proven useful

is directly related to issues of relevance. Specifically, readers have shown reductions in their use of inaccurate information when the inaccuracies were implausible (Hinze et al. 2014). Using our previous story, if the critical statement read, “That’s why we had to go to Russia, because her family lives in the capital city Brasilia”, participants were unlikely to use that information to answer the related trivia question. St. Petersburg may have been a potential lure because it shares a variety of critical, relevant features with the actual capital of Moscow. Both cities are in similar geographical locations, share cultural traditions, and are routinely mentioned with regard to Russia. In contrast, Brasilia is in a different geographical location, with a culture and language distinct from Russian traditions. Brasilia is therefore much less relevant for the topic of Russia, helping to reduce any confusion or contemplation as to its appropriateness for answering the question. The above example helps demonstrate that plausible information often shares important characteristics that are relevant to topic-related considerations. This can be a problem when that plausible information is inaccurate and we rely upon it. In contrast, when information is implausible, it is so different and unrelated to our considerations and expectations that it is likely to be deemed irrelevant for our concerns, and discounted or ignored.

Importantly, relevance here is something that readers must make determinations about as they progress through the text. While people certainly might have as an overarching goal the desire to learn new information and avoid acquiring any misleading content, this goal is not something they seem to regularly enact effectively across many text situations, as exemplified by a willingness to use patently inaccurate information in empirical projects. But when information raises a reader’s skepticism by being less relevant for current considerations (e. g., that Freud invented the smallpox vaccine; that Heathrow is located in Tokyo; that Einstein invented the telegraph, as a few examples of implausible inaccuracies), readers are less likely to use that information later. Readers could certainly be told prior to reading that the information they will encounter in the text is potentially inaccurate and to be careful, but instructional guidance of this form has not been particularly successful (e. g., Eslick et al. 2011). Rather, readers’ use of any presented inaccuracies decreases when that information is less relevant for the specific contexts in which they are described.

The cases discussed in this section have focused on how unfolding discourse experiences can encourage considerations of relevance on a *moment-by-moment* basis, rather than *prior* to any reading experience. In the next section, we consider how *post-reading factors* influence determinations about what is relevant.

3 After reading

Readers are often asked to produce and discuss information from a text after they have completed reading and the text is no longer available. For example, a friend may be aware that you already read a book she was assigned for her book club, and ask you what it was about. You may have read George Orwell's *1984* several years ago and reflected upon striking similarities between the book and current affairs. Or a student could be asked to read in preparation for an upcoming exam, unaware of which elements of a text will be assessed until taking the test. Across these instances, people can of course establish goals that help them determine relevance before they read, as well as while they are engaged with a text. But these mundane examples involved relevance decisions *after* reading. Determinations of what is most relevant before and during reading may have different functions and effects than do determinations made after reading is completed.

A study by Anderson et al. 1983 classically showed just such distinctive effects. In their project, high school students were asked to read a short text about two boys who left school early, opting to go to one of their houses. Participants were randomly assigned to one of two pre-reading instruction groups before reading the story, portions of which described the house that the boys were going to visit. Participants who received the *burglar* pre-reading instructions were asked to read the story from the perspective of a person contemplating burglarizing the house. This was intended to highlight relevant aspects of the text associated with burglary, including the valuable property and the ways in which one could enter or exit the home. Participants who received the *homebuyer* pre-reading instructions were asked to read the story from the perspective of a person contemplating buying the house. This would include information associated with real estate issues, including the size and condition of the property.

After reading, participants were asked to recall the text from either the pre-reading perspective they had been previously assigned, or from the other perspective they were unaware of and had not thought about yet. For example, half of the participants initially asked to read the story from the perspective of a burglar were also asked to recall the information from that perspective, while the other half were asked to recall the information from a homebuyer perspective. Similarly, half of the participants asked to initially read the story from the perspective of a homebuyer were also asked to recall the information from that perspective, while the other half were asked to recall from a burglar perspective. Overall, participants recalled more information relevant to their pre-reading perspective than information that was not relevant to that perspective. For example, individuals assigned to the burglar condition tended to recall elements of safety, valuable materials, and so forth, more than information unrelated to those

ideas. Importantly, participants also recalled more information that was relevant to a newly assigned perspective than information irrelevant to that new recall perspective. So while participants utilized pre-reading instructions to direct their focus during reading, they were also able to redirect their focus to other, unrelated information that only became relevant after reading had been completed.

In a similar vein, other work by Anderson/Pichert 1978 demonstrated that readers can reorient their considerations to reflect on and consider information that would not have been deemed relevant based on earlier instructions. This investigation examined the effects of focusing instructions when participants were asked to recall the same text twice, but from different perspectives each time. Using the same story involving the schoolboys, participants were asked to read the text from either a burglar or homebuyer perspective. After a brief unrelated task intended to discourage memorization strategies, participants were asked to recall the text from that pre-reading perspective. Then, after a second interpolated task, participants were again asked to recall the text, with the recall instructions either aligned with the pre-reading instructions and first recall, or invoking consideration of the other, new perspective. For example, participants might have been asked to read the story from the perspective of a homebuyer, and to subsequently recall the text from that perspective, but at a second recall to consider things from a burglar perspective.

For the first recall task, participants recalled more perspective-relevant than perspective-irrelevant information, in line with the particular perspective they were asked to take in the pre-reading instructions. On the second recall task, participants who were asked to recall the text from a different perspective than was instantiated earlier recalled additional information relevant to the new recall instructions. For instance, when the burglar perspective was instantiated prior to reading and for the first recall task, but the homebuyer perspective was instantiated for the second recall task, participants recalled more homebuyer information on the second recall task compared to the amount of homebuyer information they recalled on the first recall task. Conversely, when participants were asked to recall the text from the same perspective instantiated by their pre-reading instructions on the first and second recall task, they recalled less of the information that was irrelevant to their perspective. Thus, changing perspective on the second recall task helped participants recall additional information from the opposite perspective, whereas keeping the same perspective resulted in lower recall of information from that opposite perspective as it never became relevant.

These findings indicate that relevance instructions can exert benefits after reading, even when they run counter to previously encoded relevance instructions. Subsequent work has indicated that these benefits have limits, though. In work by

Baillet/Keenan 1986, participants read texts from a specific pre-reading perspective or without being assigned a particular perspective. After a brief intervening task, participants were asked to recall what they had read. Participants in an immediate recall condition were asked to recall the text information a second time right after the intervening task. Other participants completed a delayed recall condition that asked participants to recall the text a second time after a 1-week delay. In line with earlier experiments, participants in these two temporal conditions were assigned either the same perspective or different perspectives for their pre-reading and recall instructions.

Analogous to the Anderson/Pichert 1978 findings, for participants in the immediate recall conditions, a perspective shift promoted recall of previously irrelevant information. Participants were able to recall new information they had not previously considered when tasked with thinking about the story from a new perspective. This necessitated retrieving encoded details that they had not previously utilized, given the nature of the task. However, for participants in the delayed recall condition, the perspective shift failed to promote recall of previously irrelevant information. After the longer delay, participants were unlikely to recall new information that had previously gone unconsidered when tasked with imagining the story from a new perspective. While relevance instructions can facilitate the recall of information that was not originally of particular interest or focus to a reader, this facilitation seems to decrease with the passage of time.

These results indicate the important contribution of relevance after reading has concluded. They also suggest that attention as a function of relevance can involve dynamic considerations, given that reader focus can be encouraged by instructions that occur prior to, during, and even after reading is completed.

4 Future considerations for work on relevance

The empirical findings described in this chapter indicate some of the ways in which relevance can guide reading and comprehension of discourse. In this closing section, we offer suggestions for three directions research might take to further inform contemporary accounts of relevance.

As exemplified in this chapter, work on relevance has tended to use explicit instructions as a means of manipulating and motivating reader decisions about what matters in a text. Instructional materials and explicitly identified goals certainly play an important role in our everyday interactions with texts. However, the cues that motivate attention to different elements of a text can

be quite distinct from clearly delineated instructions. Suggestions and advisory statements likely also influence relevance considerations, but are presumably less authoritative or conveyed with less certainty. Additionally, implicit cues contained within texts, or that are part of a pre-reading or post-reading experience, also play important roles. Earlier we considered preferences of characters as derived from less explicit cues. A host of other implicit features, ranging from subtle lexical inclusions and persuasive elements, to emotional contingencies and genre expectations, also can influence processing. Identifying the range of explicit and implicit cues that motivate considerations of relevance will support the descriptive and explanatory power of emerging accounts, and of course necessitate careful examination with respect to their potential interactive effects.

From a more applied perspective, researchers and educators should also contemplate how notions of relevance can be levied to support effective learning. This would include reflecting on the design of instructional interventions intended to help learners focus on elements most crucial to topics in a field (e. g., Fogarty et al. 2017). More broadly, it should also involve building instructional supports that help students make their own determinations of what matters in a text, reflecting on their evaluations in ways that support comprehension and decisions about study. This necessarily requires collaboration with educators to ensure the development of applications that are useful and appropriate for school settings. Such work should also make connections with informal educational settings, such as museums, as a means of supporting instruction outside of school settings where a substantial amount of learning occurs, and where determining relevance might represent distinct challenges.

Finally, work on relevance has tended to focus on how people make particular determinations that are reflective of text, reader, and task influences. Relatively little work has examined how writers, content creators, and instructional designers take into account notions of relevance as they construct their materials. When authors write novels, for example, they devise descriptions in ways intended to focus readers on particular aspects of plot, while at times obfuscating or drawing attention away from other elements. Mystery writers are particularly adept at this, as they want their readers to take careful notice of some clues, while simultaneously attempting to disguise others so that surprises emerge naturally over the course of a story. Textbook authors engage in similar practices, attempting to focus student attention on critical concepts while also, at times, downplaying irrelevant considerations and inaccurate accounts. Understanding these practices, and identifying the knowledge that authors possess for encouraging particular kinds of attention in readers, will crucially enhance accounts of relevance.

5 Conclusion

Relevance can influence comprehension of and memory for text, being enacted prior to, during, and after reading. Empirical evidence from cognitive and educational psychology highlights the processes and activities that occur as readers are engaged with texts, as well as the products of those enacted processes. While the focus of this chapter has been on reading, the findings are relevant to broader discourse experiences including conversational interactions and media presentations. Work in this area has the potential to inform theoretical accounts of how relevance functions, while also supporting the design of effective instructional experiences.

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Social Distribution of Knowledge in Action: The Practical Management of Classification

Abstract: In this paper we attempt to revisit the concept of social distribution of knowledge Alfred Schutz once put forward to be the central concept in sociology of knowledge, operationalising this in the context of practical action. In doing so, we examine how the notion of relevance is deployed as the members' practical concern in the context of librarianship. Thus, this is an attempt to look into activities where members not only operate under auspices of organised stocks of knowledge, but also modify the organisation of those stocks of knowledge as needed in their attempts to accomplish their work. Examination of librarians making books available to users through classification in a university library in the U.K. revealed that their activities involve their management of professional and organisational corpuses of knowledge, in this case, through the medium of classification schemes. Librarians in the university studied were using the "local version" of the DDC (the Dewey Decimal Classification), and were adapting it to the needs of the library service as they saw them. The notion of "relevance" extensively informs their work, two dimensions of relevance being prominent. The librarians understand their work to be responsive to the varying and changing requirements of users, their decisions being shaped to provide what they construe as "what readers want". The other significant relevance we considered is that of aligning the library's classification with the relational features of academic and scientific fields as embedded in documented "subject matters". Thus, relating the stocks of library materials to the current shape of the professional corpus in domains of knowledge so that it stays relevant to collectivity members seems to be central to the community, and what the relevance consists of may vary depending on the community.

1 Introduction

In both science and industry, it has been noted that the production of knowledge has become increasingly "open": Michael Gibbons (1994) pointed this out by using the term "Mode 2" to describe a different way of producing knowledge

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where interdisciplinary teams are brought together to work on problems in the real world for a certain period of time, which is different from Mode 1, where knowledge production is motivated primarily by specialised disciplinary knowledge. Michael Lynch (1993) also pointed this out with respect to science on the basis of laboratory studies produced in the 1990s. “Open innovation” might be another keyword for referring to a more open production of knowledge in industry since the beginning of the 2000s (Chesbrough 2003). With the expansion of the Internet, these developments have been accelerating with the movement toward open source programming, crowd sourcing of various kinds of knowledge work, and citizen science, to name a few. It has become extremely easy for individuals and organizations to make their knowledge “public” using various Internet platforms and services. People can now “distribute” and “redistribute” knowledge of various kinds and quality to vast numbers of people. This may also lead to drastic changes in how specialised knowledge is available to people and how professionals work in the future, as Richard Susskind and Daniel Susskind predicted (Susskind/Susskind 2015).

However, it is still often the case that Internet search engines such as Google present knowledge of various kinds in an unstructured way, as in a flat list. This means on the one hand, finding *relevant* knowledge has become a more central issue to individuals in everyday life. On the other hand, making knowledge publicly available has become a more central issue with the introduction of the Internet: individual organizations now face the issue more commonly as part of their activities. Here, it should be noted, that the term “knowledge” is used to mean what individuals take themselves to know, without any evaluation by the analyst as to whether something should otherwise be counted as “knowledge” or “information”.

This all means that we are living in a time when the distribution of knowledge as a social phenomenon has become much more complex than it was when Alfred Schutz introduced the concept. Schutz originally intended the concept of “the social distribution of knowledge” to be the core of the sociology of knowledge, but the concept has so far received only perfunctory acknowledgement by scholars such as Peter Berger and Thomas Luckmann (1966), Burkart Holzner (1968), and Fritz Machlup (1962; 1980). It is probably not too late to take Schutz’s project seriously. In this paper, an attempt is made to develop the theme of the social distribution of knowledge in ethnomethodological terms. As part of this attempt, this paper focuses on the practices of librarians who are professionally specialized in making stocks of knowledge publicly accessible over space and time – they engage in the practical management of the social distribution of knowledge. Such a move has been pioneered by Harold Garfinkel through looking into “perspicuous settings” to see how members encounter and deal with a problem as their practical matter, instead of researchers trying to deal with an issue purely from a theoretical perspective (Garfinkel/Wieder 1992). As it turns out, looking

into librarians' practices of making documents accessible to people involves their management of professional and organisational corpuses of knowledge, in this case, classification schemes.

2 Developing Schutz's theme of the social distribution of knowledge

2.1 The problem of the social distribution of knowledge

Schutz repeatedly expressed dissatisfaction with the sociology of knowledge which had then been developing (see for example, Schutz 1962; Schutz 1964; Schutz 1966). He saw its predominating concern with epistemological problems, especially the socially constrained nature of knowledge, as missing an opportunity to investigate the problem of social distribution of knowledge, which he thought to be the central issue.

True, we have a so-called sociology of knowledge. Yet, with very few exceptions, the discipline thus misnamed has approached the problem of the social distribution of knowledge merely from the angle of the ideological foundation of truth in its dependence upon social and, especially, economic conditions, or from that of the social implications of education, or that of the social role of the man of knowledge. Not sociologists but economists and philosophers have studied some of the many other theoretical aspects of the problem. (Schutz 1964, 121)

It is obvious that the target of Schutz's criticism was mainly Mannheim's sociology of knowledge, which had been developed at almost the same time as Schutz was writing about the sociology of knowledge, both in the first half of the twentieth century.

The concern with the socially constrained nature of knowledge (i.e. the existential determination of knowledge) was, as Schutz saw it, an attempt to provide causal explanations to the phenomena of the social distribution of knowledge, which is available as part of a "common sense understanding" of the notion of knowledge. That knowledge was differentially distributed in relation to social positions is a taken for granted assumption within society. The attempt of the sociology of knowledge to provide causal explanations to the socially constrained nature of knowledge meant, for Schutz, turning this "common sense" assumption that knowledge is socially distributed into an empirical problem, so that causal accounts can be provided. In so doing, he thought, the problem of the social distribution of knowledge was left unexplicated, with the result that the postulate of *Verstehen*

is excluded from reflective consideration. This is what Bittner called a theoretical “short circuit” (Bittner 1973). Thus, Schutz’s proposal for the “so-called” sociology of knowledge was to examine the organisation of the distribution of knowledge which is available as part of members’ “common sense” experience of the everyday world, and then, to construct theories based on this examination.

The centrality of the problem of the social distribution of knowledge was, for Schutz, something that underlies various sociological issues such as those of profession, charisma, authority, etc. – any social phenomena where the relationship among people in a social group or groups can be accounted for in terms of a differentiated distribution of knowledge (Schutz 1964). Thus, he saw that the problem of social distribution could not be confined to one area of sociology. By founding sociological theories of social organisation on the “common sense understanding” of social phenomena, especially in terms of the social distribution of knowledge, Schutz thought, it was possible for sociologists to construct theories which take into account *Verstehen*.

2.2 Members’ knowledge management as a topic

The present study is an attempt to understand some implications of this proposal which are still relevant in the context of the recent development of the sociology of knowledge. How this proposal can be developed so that its implication can be operationalised to a fuller extent will be explored. Garfinkel’s application of Schutz (Garfinkel 1952) is found to be the most productive in the sense of paying attention to how knowledge is distributed and redistributed as part of members’ organising their activities in the actual situation. However, the problem of the “large scale” social distribution of knowledge has not been particularly taken up by Garfinkel and other ethnomethodologists so far. Thus, the present study will explore a way to develop the investigation of the problem of the social distribution of knowledge with ethnomethodological import. That is to say, it will seek a way to treat this concept as a practical accomplishment by the members, i. e., as a practical concern of the members. Further, it will focus on how people attempt to manage knowledge and make knowledge available in a certain manner, e. g., through systematisation as part of their attempts to enable themselves to accomplish their activities in an orderly manner. In other words, we will look into the practice of working on a systematised corpus of knowledge which has not been paid much attention in ethnomethodology, while much attention has been paid on how people work from within a corpus of knowledge in a particular setting.

This would pose questions about how members organise, preserve and accumulate knowledge so that they can share with others not only in a “face-to-face”

relationship, but also with their contemporaries, predecessors, and successors. What kind of mechanism do members have to organise and distribute knowledge so that they can collectively share a corpus of knowledge as social stock of knowledge upon which collectivity members can draw in carrying out their activities? To put it more specifically, we are going to examine the ways in which members make a corpus of knowledge available to others as a collectively shared and standardly organised stock of knowledge, in other words, as a “transcendental” arrangement of knowledge, remaining consistent beyond the “here and now” (i.e. the stock of knowledge at hand), as well as beyond the “you and I” (i.e. the locally collective corpus of knowledge). Mostly it is carried out through socialisation, but in some cases, it is carried out by organising bodies of knowledge into systematised and impersonal structures of knowledge, whereby “transcendentality” of knowledge is produced and sustained.

At the same time, we are going to examine how members recognise and treat a corpus of knowledge as a social stock of knowledge as part of their activities. Participants find that they are to refer to the social stock of knowledge assumed in the setting in “consistent” ways so that others would understand the setting in orderly ways, and they expect the same from others. We call this “management of consistency”, whereby we examine how the social stocks of knowledge are available to members as socially enforceable. Thus, this study deals with members’ practical management of the structure of the social stock of knowledge as a topic of their activities.

2.3 Classification as social structure

Classification has been occasionally studied as social structure, as a source of social order by sociologists and anthropologists. One such example is Michel Foucault’s study of classification in natural history in comparison with a scheme in biology (Foucault 1970; 1972). In natural history, as Foucault describes it, what had been dealt with was not life, but living things. He refers to Carl Linnaeus’ description of the work of the natural historian, who, Linnaeus writes, “distinguishes the parts of natural bodies with his eyes, describes them appropriately according to their number, form, position, and proportion, and he names them”. Thus, Foucault characterises natural historians as concerned with the structure of the visible world and its denomination according to identifying characters. He further argues that in natural history, names are given to the thing via taxonomy, and at the same time the thing becomes orderable. In biology, on the other hand, life is the object being dealt with, and any particular living thing is classified in the continuum of life. Thus, Foucault emphasises the difference between natural history and biology by examining the way classification was carried out in

natural history and biology and warns historians not to overlook the existence of the fundamental “discontinuity” between the two disciplines. Because Foucault regards the system of classification as a social structure available for members of the knowledge field in studying and recognising objects they encounter, he is able to gain insights on how members in each knowledge field, i. e., in natural history and biology, were studying objects at that time with the scheme at hand. This is how he came to see the discontinuity between the two fields, i. e., natural history and biology; and this is how he further reflected on the problem of differentiating between bodies of knowledge in different disciplines.

Bowker and Star (1999) studied classification as infrastructure, in the sense that the work of making, maintaining and analysing is central to the work of modernity, and therefore, to modern social life. While they claim that “Foucault’s practical archaeology” is their point of departure, they explicitly claim that they have a specific moral and ethical agenda, implying dissatisfaction with Foucault’s analysis. They argue that classifications should be recognized as powerful technologies in the sense that they are the site of political and ethical work, by demonstrating how the creation of a specific category can create a “silence” of the excluded remainder. Classification schemes are powerful, they also argue, as they are mostly “invisible” being working infrastructures of information environment, i.e. they are routinely applied rather than reflected upon. They examine categories in the texts of these classification schemes: (1) International Classification of Diseases (ICD), (2) taxonomy of viruses, and (3) Nursing Intervention Classification (NIC). Thus, Bowker and Star regard classification schemes as social structures, which “invisibly” impose an order that may not be ethically and morally desirable, making things or individuals invisible or “abnormal”.

More recently, Watson and Carlin (2012) examined “library classification in action” in their attempt to respecify the formal-analytic project of the “Philosophy of Information”, as, for instance, formulated by Luciano Floridi (2002a; 2002b). They examine situated practices of members dealing with “information” in various settings, including classification practices at different academic libraries. With the analysis of classifying “information”, i.e. classifying books as a members’ accomplishment, they remind us how the concept of information put forward by formal analysis is a decontextualized version of the concept.

In the more recent context of information studies, research on classification has focused on the omnipresence of classification and category in today’s digital information infrastructures, as tagging and the classification of what we do and know has become part of our everyday life (Andersen/Skouvig 2017). These studies deal with the ideological aspect of classification in knowledge organization and look at social, cultural and political ramifications in various parts of our life, not limited to libraries. In these studies, what practices and activities of

knowledge organisation do to global and local information infrastructures is seen as a challenging question.

The following study is close to Watson and Carlin (2012) in the sense that it examines practices of librarians' classification. This can be characterised as putting back the classification scheme in the context of practices, on one hand. On the other, this study is distinctive in the sense that it looks into librarians' practices in terms of how they add modifications to their classificatory schemes as part of their practices, i. e., how they work on the classification scheme from within it. Thus, it is an attempt to examine the management of classification schemes as the local accomplishment of a generic order. It is an examination of the members' operation of the formalised scheme, which has not been paid much attention in ethnomethodological studies. Librarians' management of classification schemes is presented as an example of "social distribution of knowledge in action". In this sense, this is a study that looks into the question of global and local information infrastructures from a members' perspective in the local context.

3 Librarianship and its professional corpus of knowledge

A person working as a librarian¹ has a specific interest in ordering the social stock of knowledge available mainly in published form to meet the needs of those engaged in knowledge production, by providing navigation mechanisms which enable people to have access in orderly ways to already existing knowledge available as published materials. Firstly, the stock of knowledge is made available within a library through the orderly distribution of documents themselves onto (primarily) shelves, that distribution in its turn being made accessible through catalogues, etc. Secondly, the stock of knowledge outside one library is also made accessible through national bibliographies, catalogue information of other libraries, both of which are now usually available in electronic form (i.e. data CDs, on-line bibliographic databases). Thirdly, the library provides services which enable the reader not only to get access to information about the available stock of knowledge inside and outside one library, but to actually read it using reader's services which include both internal services and external services through an established world-wide network with other libraries.

¹ These are university librarians. Thus, their concerns reflect their organisations' mission to accumulate documents that are primarily concerned with "information" or "knowledge".

Librarians are prominently, though not exclusively, concerned with impersonalised accessibility to the stock of knowledge through the classification of bodies of knowledge and their elements as embedded in document structures. This is achieved in the form of devising catalogues, which characteristically consist of two main elements specifying the content of the document and its location within the library. As will be described in more detail below, classification schemes used for this purpose are not closed schemes but ones which are open to internal expansion, thus librarians were found to be constantly reviewing them so that they can continually update the schemes as their own corpus of knowledge relevant to their work.

There are two internationally recognised sets of rules for producing formatted formulation of books: one are cataloguing rules (e.g. the *Anglo-American Cataloguing Rules*) and the other is the classification scheme (e.g., the *Dewey Decimal Classification*, the *Library of Congress Classification*). For example, The Cataloguing Rules are a codified set of rules which is designed to enable the cataloguer to produce a formulation of a book's character (including its "knowledge character") in a standard format, and the rules provide instructions to treat a particular item as an "instance" of a standard pattern. For this to be possible, they are designed to cover variations of items and different degrees of detail in description. The *Rules* are widely used for cataloguing books written in English. The *Dewey Decimal Classification* is another codified set of rules which is designed to enable the classifier to deal with each item as an "instance" of an underlying pattern provided by the scheme, as we will discuss in detail. They are both part of the professional corpus of knowledge in librarianship, and cataloguer and classifier carry out their work regarding them as their "frame of reference" respectively. We will focus on the *Dewey Decimal Classification* scheme (hereafter, the DDC) as an example of a systematised corpus of knowledge via codification.

The originator of the DDC is Melvil Dewey. When working as a student library assistant at Amherst College, he came up with the idea of *relative location* by introducing a classification scheme of knowledge which uses numbers for "a classification of all human knowledge in print" (Dewey 1958, 5). In 1871, when he was twenty, he proposed a "not only a revolutionary classification scheme for the library, but also a carefully considered account of its merits and how it was especially adapted to the needs of the Amherst Library" (Dewey 1958, 6). Dewey writes retrospectively about that period:

In visiting over 50 libraries, I was astounded to find the lack of efficiency, and waste of time and money in constant recataloging and reclassifying made necessary by the almost universally used fixt [sic] system where a book was numbered according to the particular room, tier, and shelf where it chanced to stand on that day, insted [sic] of by class, division and section to which it belonged yesterday, today and forever. Then there was the extravagant

duplication of work in examining a new book for classification and cataloging by each of a 1000 libraries insted [sic] of doing this once for all at some central point. (Dewey 1920, 151, quoted in Comaromi 1976b, 3)²

Thus, Dewey saw there were methods of classifying and cataloguing books almost as numerous as the numbers of libraries and thought that the duplication of work would be eliminated by standardisation of the methods. Furthermore, he saw the disadvantages of a *fixed or absolute location system*, which would not allow books closely related in content to be shelved close to each other; instead, under the previous practice, they could be shelved far apart if one book was received a long time ago and, with its fixed number, would be physically remote from the place on the shelves which would be given to a more recently received book.

Thus, the introduction of a classification scheme which allowed a relative location system to structure collections revolutionised the methods of classification and, at the same time, standardised the librarians' work a great deal (Comaromi 1976b, ch. 1). The scheme initially proposed to the Amherst Library was later published for the library as *A Classification and Subject Index for Cataloguing and Arranging the Books and Pamphlets of a Library* in 1876 (Dewey 1876). Since then, consecutive editions have been published up to Edition 23 (Dewey 2011). However, as can be assumed, it has been not without great efforts. Up to Edition 14 (Dewey 1942), the DDC had been for sixty years under the editorship, with a unified direction sustained, of Dewey and his "apostolic" colleagues and successors who personally shared his ideas. When Edition 15 (Dewey 1951) was published in 1951, most librarians saw it as a "disruption" in the DDC history. The reduction was extensive – the number of pages was reduced from 1,927 to 716 pages, while the Decimal Classification Committee had originally projected that the Standard Edition would be 1,000 to 1,200 pages. Two thirds of all users, i.e. cataloguers who responded to the questionnaire administered to decide policies on the next edition, stated that they could not use Edition 15 as a complete scheme in its own right (Comaromi 1976a, 327). In the end, it was decided that a revised version of edition 15 should be published, and especially the need for an expansion of the Relative Index was thought acute.

The causes of the "practically unmitigated disaster" of the 15th edition were considered to be (1) lack of communication with professional librarians,

² Dewey was also a founder of the Spelling Reform Association established in 1876, and was a strong advocate of simple spelling. He used the simple spelling system in the DDC as well as his papers, letters, etc. In this chapter, his spelling will be retained whenever either his writing or an excerpt from the DDC are quoted. The indication of "sic" will be omitted hereafter.

and (2) inability of the Decimal Classification Committee to provide editorial leadership, not being able to find an appropriate Editor at an appropriate time (Comaromi 1976a, 327–328). Eventually, the American Library Association was approached to secure additional professional expertise for the stable development of the DDC and the Library of Congress was approached to secure further expertise as well as financial security. As a result, a drastic reorganisation of the editorial system was conducted; especially following the initiative of the Library of Congress which set the direction the present DDC took, this was done with the users' participation, i. e., librarians' participation in the "design process". Since Edition 16 (Dewey 1958), while there have been various organisational changes, the DDC had become librarians' "collective, public, structural, and corporate knowledge", not only in the sense that librarians classify books according to it, but also in the sense that it is assembled and maintained by the corporation of library professionals themselves (i. e., including librarians and educators) under a division of labour derived from the structured editorial system. The phrase "collective, public, structural, and corporate knowledge" is meant to express the fact that it is "collective" as it is the knowledge of the library community, "public" as it is publicly available, "structural" as it is structured for applying it to books so that they get systematically classified and shelved, and "corporate" as it is shared, produced and maintained in a corporate manner among members of the librarians' community.

4 The locally customised DDC

The library studied and reported here was founded in the mid-nineteenth century. At the time of the study in 1995–1996, it was ranked as the third largest academic library in the United Kingdom with resources extending to more than five million items, of which 3.5 million were printed books (Ikeya 1997). The DDC has been used in this library for about 100 years. The scheme used in the library was mainly based on Edition 13 (Dewey 1932), with some partial adoption from different editions as well as some internally developed parts. Some sections such as Philosophy and English literature were based on Edition 6 (Dewey 1899). The library's original medical classification used since 1922 had been converted to Edition 20 (Dewey 1989) with some adaptations, since the original scheme which had been used in the medical library became obsolete. Thus, the scheme of this library does not correspond to the latest edition of the DDC, and is considered as a locally customised version.

Yet, however this scheme differs from the present official DDC, the library makes its current organisation available through a Subject Index both in printed and computerised forms, with which one can trace where all related subject terms are located within the current organisation of this local DDC. Thus, the user will know all the relevant locations to look for from all the relevant numbers listed by searching the Subject Index under a subject term. There is also a Reverse Subject Index in printed form for librarians, a schedule arranged according to numbers with detailed subdivisions. Both are also available to users of *this* library, so that librarians can do classification in orderly ways and, at the same time, so that library users can search for books in orderly ways. Thus, the scheme is made publicly available in articulated and formalised forms, so that it provides librarians and users with a “unifying pattern” within the library, namely, a *thematic presence* (in terms of which the library’s layout and the arrangement of its collection is ordered) for carrying out their respective activities in orderly ways. In other words, the scheme is made available as systematised collective, public, structural, and corporate corpus of knowledge, situated in *this* library.

We now focus on the scheme in relation to the librarians’ work, especially the work of classification. In order for them to classify items in collaboration with each other so that individually classified items can be placed in a locally “consistent” collection which would allow orderly searches, it is required that there be agreed, standard ways of doing classification in the application of the scheme. Further, it is also required that there be agreed, standardised ways of maintaining and developing the scheme, i.e. of making revisions, including extensions of the scheme, whenever it is necessary.

In the case of the official DDC, its formally agreed and standardised procedures for application are made public to its users (i.e. librarians) in articulated and formalised forms in its Introduction, Manual, notes in the Schedules, etc. Furthermore, there are formally agreed and standardised procedures for maintaining and developing the scheme, which are publicly made available in articulated and formalised ways as part of editions, e.g. in Preface, Introduction, etc. Thus, both standardised procedures for application, as well as for maintaining and developing of the official DDC are made available as collective, public, structural, and corporate knowledge.

Cataloguing is seen as skilled work, not just as a matter of placing individual books in the number scheme and in shelf locations. It is undertaken by subject specialists in charge of the management of the specialised knowledge field(s). It is recurrently problematic to match the classification schemes and a published work. Classifying the item in the same way a similar book was classified in the past is the fundamental principle, considering the coherence of the collection

and the users' physical accessibility of the books, until it is determined by the librarians that too many books are located in one section and the librarians need to consider changing the scheme both in terms of accessibility to users and of keeping pace with knowledge. Yet, in considering changing the scheme, they also need to consider the organisational capacities of the library to which they are affiliated, including the workload generated as a consequence of changing the scheme, i.e. the workload required for the rearrangement of books, vis a vis the amount of backlog waiting to be catalogued (as in so many occupations, the workload is commonly heavier than can be completed in current working hours, hence the often large number of works awaiting classification, the "backlog"). It is the subject specialists who will be in charge of changing relevant parts of the scheme.

In contrast to the "official" DDC, in the case of the customised version of DDC belonging to this library, its standardised procedures for its application, maintenance, and development are available as informally agreed procedures among the library's cataloguers, as orally shared know-how. In other words, they are available as organisationally localised oral traditions, rather than as collective, public, structural, and corporate knowledge. This situation is a little similar to the earlier days of the DDC. At an earlier time, when Dewey was still alive, editorial policies were informally agreed among several editorial staff (Comaromi 1976a). Standardised procedures for the application were not formalised as extensively as they are in the recent editions and its related publications. Yet, we should not overlook the difference between the earlier editions of the DDC and the customised DDC: the former were always presented as a scheme generally applicable to "any" library, whereas the latter is made available only locally, within *this* library.

In the following, we are going to examine what kind of "underlying pattern" the staff derive from the orally shared know-how among themselves in doing classification, and in maintaining and developing their customised DDC in the library.

5 The management of the "transcendentality" of the scheme

5.1 Transcendentality of the scheme

The DDC is one of library professionals' attempts to systematise their professional corpus of knowledge in the mode of collective, public, structural, and corporate

knowledge, so that they can formally share a certain corpus of knowledge collectively as professionals. Thus, the DDC is a *standardising tool* for librarians pursuing their professional concern with the organisation of knowledge which can be used by library users searching for knowledge to navigate the library stocks. This is to say, it is designed to be “transcendental”, to be available beyond the here-and-now and the “you and I” (i.e. the collective), in the sense that it covers a variety of knowledge from different disciplines and that it can be used in different kinds of libraries, i.e. small or big libraries, public libraries, school libraries, or academic libraries. In other words, the DDC is designed to be itself a standardised device for creating “consistent knowledge representations” of “any” written items which could make up “any” library’s collection. By revising the scheme and issuing new editions, they try to maintain its “transcendentality”, by keeping pace with changes in knowledge, as well as by responding to the diverse needs of users (e.g. internationalisation).

This management of “transcendentality” does not mean that the “transcendentality” of the scheme is *automatically* transferred when it is actually applied to a local context. In fact, it is the continuous work of the librarians that preserves its “transcendentality” in their local setting by aligning the local organisation with the larger scheme. Its “transcendentality” in the local setting is the members’ continuing accomplishment. They might try to adjust it according to prescribed, standardised options officially provided, or they might try to do it in their own ways. If they try to apply the DDC to their local contexts by preserving its “transcendentality” in both senses, they are to follow the changes of each edition either by adhering to its instructions for relocation, or by ignoring the consistency of its own collection and following each new edition with the help of readymade cataloguing data from a central agency such as that of the Library of Congress (i.e. CIP data). Yet, this latter choice can be opted for only in those libraries where books are not kept for a long time, such as small public libraries, while university libraries tend to keep the collection for good.

Alternatively, they can customise the DDC to their local needs according either to provided standardised procedures, or to their localised ways, whereby they manage to preserve “transcendentality” in the sense that the scheme “represents” different knowledge fields, but not in the sense that it covers different libraries in the same way. In terms of the library examined in this study, it had opted for the latter way, by customising Edition 13 (Dewey 1932) in ways unique to this library. By revising it whenever they find it necessary as they work along, they try to track changes in the organisation of knowledge and the development of knowledge fields, so that they can provide their library users with some navigating mechanisms such as catalogues, shelves, etc. In the interview below, the classifier talks about the importance of managing the continuity of the organisation

of this library, rather than considering how books should be classified by referring to the British Library's way, for example.

[...] it's more important to find out how it's been classified here rather than what a particular edition of Dewey says, that's the way we look at it. It's been just looked at as what is the right thing to do in this library, rather than, say, we haven't looked at what the British Library is doing and say we ought to classify the way they classify, we just say this is the way it's been done, and we may try to improve what we are doing now, but usually we carry on this way, we can see where it needs improving, [...]. (JC2, 7)³

So, we are going to focus on the ways in which the librarians try to manage the “transcendentality” of the scheme through working on it.

5.2 Coordinating the Subject Index

We are going to take a closer look in the following. There are various kinds of adjustment the librarians continuously make to their classification scheme, which often involves relocation. So, some attention is paid also to the ways in which they cope with the problem of relocation which is, and has always been, a controversial issue in making the “official” DDC. Like any other organisation, libraries operate with limited staff and resources. One of the criteria for measuring effectiveness in libraries is how long it takes for a newly acquired book to be processed for the use of readers, or how much backlog (i.e. as-yet-unprocessed books) they have. The library in question had eliminated some substantial backlogs to the point where it would take only for three to four weeks for a newly acquired copy to become available for users as opposed to one to two months. Yet, changing the schemes in order to keep the pace of knowledge and increase accessibility to users needs to be carefully considered in terms of the workload which will be generated as a consequence.

There are at least four categories of adjustment made in this library; although there may be more to be added to the list, the following four ways are the ones discussed in interviews conducted with the librarians there. *Integrating sections* by diverting one section to another is one of the most common practices, since there are cases where books on the same subjects are scattered across more than one section. In this case, the librarians choose one section for future use and discontinue the use of others. *Making subdivisions* is another common practice where they break down one section into sub-classes

³ Here and in the following, “JC2” refers to the transcript of an interview done as part of the research reported in Ikeya 1997.

so that they can classify books more closely to each other. *Changing sequences of books without changing the scheme* by relocating books is also common, but less frequent, compared to the first two practices. It is done to create special collections by collecting books otherwise scattered all over the Library for specific purposes, e.g. Reference collection, Near Eastern collection, etc. Adjustment of the scheme by *converting some parts of the scheme to another* by importing a completely different arrangement from outside the existent scheme is a rather drastic adaptation which does not take place often, but the medical section was converted to DDC 20 (Dewey 1979).

Whatever change is made, one thing which must be maintained is that the scheme remains a standardised device for producing a “consistent knowledge representation” of the entire collection of this library, so that any item can be traced by library users whether it is old or new, whether it is in store or in open shelves, whether it is a book, manuscript, or microfiche. So, any change made to the scheme can affect the consistency of search procedures, which the scheme is designed to sustain. In other words, the “transcendentality” of the scheme can be put in jeopardy if this is not carefully managed. Thus, one person is in charge of coordinating the adaptation of the scheme, and he integrates changes made in the scheme and advises other classifiers about the changes so that they can take notice of the changes in their own classificatory operations.

For example, in order to integrate changes to the scheme, links must be made between a number in an older version of the catalogue and the new number in the up to date version so that books classified under the old number can be still traced through the new number. This is made possible in the Subject Index, where you can find beside the new location (510.8.225), the old location (510.8) as is shown in Table 1.

Table 1: A Part of the Subject Index of the University.

COMPUTER SOFTWARE ENGINEERING:: Debugging	510.8.225
COMPUTER SOFTWARE ENGINEERING:: Debugging (some older books)	510.8

Through this index, not only library users but also cataloguers would know about the changes, hence they would use the new number in future. The librarian in charge of coordinating the scheme updates the subject index weekly in the OPAC.

5.3 Integrating sections

As librarians work along with the scheme, they often find that books on the same subjects are classified in two or more sections. Each classifier is to report to the coordinator about problematic parts of the scheme as well as their ideas about how these problems may be resolved. The coordinator is in charge of gathering such problematics of the scheme for consideration as to what to do with the scheme and collection to solve the issues. That books on the same subject are classified differently is not desirable, since it does not allow users to carry out thorough searches. Yet, this is not an uncommon thing to happen, especially in a situation where different cataloguers are doing the work; hence, communication between them becomes vital. Or, where the collection has been maintained over a long period, it is also vital to be aware of what has been done over the years in this library, which may be difficult to trace if one is not careful. Furthermore, this problem can happen due to one of the features of the DDC: that it is arranged by discipline and not by subject and that, therefore, there may well be no one single place for a given subject, as the DDC 20 has clarified in its Introduction (Dewey 1989, xxvi–xxvii).

Marriage, for example, has aspects which fall under several disciplines, such as music, philosophy, sociology, and law. Music for marriage ceremonies belongs in 781.581 as part of the discipline of music; ethical considerations in marriage in 173 as part of the discipline of philosophy; sociological studies of marriage in 306.81 as part of the discipline of sociology; and legal aspects of marriage in 346.016 as part of the discipline of law. (Dewey 1989, xxvi)

Thus, works with a strong interdisciplinary flavour would be “borderline” cases which are difficult to deal with. The “official” DDC has recently expanded its instructions for these “borderline” cases, and they do provide solutions to a certain extent, but in most cases the final decisions have to be made for particular cases individually. Yet, even if books are classified under the same subject, if the two possible numbers are linked to each other in the record, then searches can be made in both sections. However, if the two numbers are not linked together, then books in only one section can be searched, and books in the other section remain unfound even if they are on the same subject. We can find in the Relative Index of the DDC, under the entry of “marriage”, various sections which deal with the topic in different disciplines, whereby links between different sections are displayed. The Relative Index assembles the disciplinary aspects of a subject in one place (Table 2).

Table 2: The Relative Index of the DDC*.

Marriage	306.81
citizenship issues	
customs	392.5
ethic	173
religion	291.563
Buddhism	294.356 3
Christianity	241.63
Hinduism	294.548 63
Islam	297.5
Judaism	296.385 63
folklore	368.27
sociology	398.354
law	346.016
literature	808.803 54
⋮	⋮
⋮	⋮
music	781.587

*DDC, Edition 20 (Dewey 1989), p.xxvii

In the case of the customised DDC we are examining, the librarians make links between the sections under which books on the same subjects are classified and choose one of them for future use, firstly, so that classifiers would use one of them, and secondly, so that the library user can be directed to search for books in other sections as well as in a section in which he or she initiated the search.

Let us return to the original problem which the coordinator faces: books on the same subjects are classified under diverse topical headings. How does the cataloguer try to solve this problem of integrating books in one section to the other? How is it decided which section is to be used in the future over the other? What is to be done with the books in the section which is being closed down? In the following excerpt, the coordinator explains their orally shared guiding principles for dealing with this problem

It is usually pragmatic. If you find twenty books of subject classified in one number, five classified somewhere else, you normally decide to carry on using the number with the twenty books, and just say nobody is to use the other number again. (JC2, 2)

They would normally choose a section where more books are classified than the other, as it is thought that it is desirable that more books can be found under the chosen, preferred subject than the other way around. They do not reclassify the books in the section which was not chosen, as another of their orally circulated guiding principles is not to waste time on re-classifying books which are already classified, but to spend time on classifying new books.

Ideally, it is considered desirable to integrate the two sections by reclassifying books in the section not chosen. It is considered so, especially, in terms of the ease of users' search for books, since if the books are not reclassified, then this means that they have to search two different sections to find books on the same subject. Yet, due to the other ideal of the effective use of time, which can conflict with the one of facilitating the ease of search for users, the guiding principle recommends that the old books may be kept but that it should be made sure users will be provided with some means of linking to them.

With regards to communication with other cataloguers about changes, the coordinator lets them know about any changes of the scheme by making an entry into the Shelf List, an inventory of the whole collection. The Shelf List is a set of files classified according to the DDC, consisting of lists of books and their book numbers, i. e., the unique numbers under which each book is kept.⁴ They usually mark the shelf list and indicate "do not use", so that anybody recording any further relevant books will not use the number (JC2, 2). Further, the coordinator updates the subject index weekly in the OPAC, which the classifiers usually use.

5.4 Making subdivisions

When librarians decide that there are too many books under one class, and also expect that new books fitting that classification are likely to be published, they break the class into subdivisions. For example, the section "338.4.1 Energy (Economics)" has been subdivided into "338.4.12 Water power", "338.4.13 Wind power", "338.4.14 Solar energy", "338.4.15 Nuclear energy", etc. "Computer software engineering" used to have only one number, 510.8, but has been subdivided into "510.8.1 Computer systems organisation", "510.8.2 Computer software",

⁴ The book number and classification number together make up the "shelf number" of a book.

“510.8.21 Computer programming: Techniques, general”, “510.8.211 Computer programming, functional”, etc. This is meant to enable users to do more specific subject searches. Before these subdivisions were created, there were too many books under one class without being distinguished from one another therefore, so that the librarians recognised it would be difficult for users to selectively identify “relevant” books by number. If the books under one class are distinguished from each other a little further with subdivisions, it becomes possible to do closer searches with more specific subject terms, and it becomes easier to find “possibly relevant” books within the searched set. Since quite a few disciplines have been developed since DDC 13 (Dewey 1932) was edited, the librarians in our library have developed their own subdivisions which they suppose will be useful to the users.

The “official” DDC has developed its subdivisions over the years, in order to “keep pace with knowledge” and to allow librarians to do discriminating classification. But since the scheme of this library is based on DDC 13 with different editions and adaptations, their subdivisions are mostly of their own devising. When somebody started this practice, subdivisions were not initially expressed with numbers. They were in words, for example, in “338.2 Mines and mining”, there were “338.2–coal”, “338.2–oil”, “338.2–rock”, etc. When they first computerised their subject index, they decided to convert them into numbers, so they were changed into “338.2.24 Coal”, “338.2.27 Oil”, “338.2.28 Fuel Gases”, etc.

The inclusion of subdivisions is carried out on an *ad hoc* basis. Some sections have very detailed subdivisions, but others may be very general. Librarians often become aware of those classes which are “badly sorted”, with very few subdivisions, and with too many books in one class where searches in shelves would be difficult to make, though this, of itself, does not trigger them to relocate the books while they create subdivisions. When librarians create subdivisions, they often do not introduce them immediately to the level of the shelves, but only at the level of the OPAC, taking into consideration the workload of relocating books. Thus, if users try to browse books at shelves, it was suggested by a librarian that it would still be difficult if there are rows of books under one classification number.

In developing subdivisions, they usually introduce them for subject searches in the OPAC. They don’t usually use the detailed numbers for shelves, since they see that if the numbers are too long, they are difficult to remember, and they also see that not much precision in terms of subject is required for searches along the shelves. When they find that subdivisions should be used also on the shelves, they follow the guiding principle mentioned earlier: try not to waste time on reclassifying old books. Hence, they link the new number and the previous number in the Subject Index as was also mentioned earlier.

5.5 Changing sequences of books without changing the scheme

One way of making the physical search for books easier in the library is forming subject specific collections such as Deaf Education Collection, Near Eastern Collection, Latin American Collection, etc. in order to meet library users' requirements. Forming special collections is a way to bring together items that otherwise would be scattered in many places in the library, without the need to make any changes to the sequences of the scheme.⁵ "Special collections" are formed in terms of specific subjects in response to the needs of academic institutions within the university. For example, the Deaf Education Collection holds books relevant to the subject which is taught in the Department of Deaf Education. By keeping books which are relevant to the subject of the course which otherwise would be placed in various places in the library, it becomes easier for the students studying in the course to search relevant books by going to one specific section of the library. It has all the books classified under "371.92 Deaf education", but also those with other classification numbers that are relevant to deaf education as taught in the institution:

[...] they might be books on psychology of language in the 400s, they might be books on Anatomy from 611, they might be some psychology books from 136.5 [...]. (JC2, 4)

These are books which would be located on different floors of the library if they were arranged normally by their classified numbers. What librarians do is, as with the Reference Collection, to classify normally according to the scheme, and then put "DE" in front of the classified number of each book. Thus, they can be searched under each subject in the OPAC like any other books, whether or not the user knows that the books one is searching for are in the Collection. In this way, the librarians attempt to meet the needs of students studying in the deaf

⁵ Changes of actual sequences of the DDC can be found occasionally; for example, "571 Pre-historical archaeology" (Dewey 1932) was transferred to "913 Antiquities archaeology" (Dewey 1932), which itself was modified to accommodate "Archaeology general". One of the reasons suggested by a librarian concerned with the decision was that books on Pre-historical archaeology should be kept together with the rest of Archaeology books so that archaeology students can search books on Pre-historical archaeology together with other books on Archaeology. If Pre-historical archaeology books were kept in 571, next to "572 Ethnology, Anthropology", under "570 Biology, Archaeology", then it would be inconvenient for students from the Archaeology Department, and also students from the Social Anthropology Department would not benefit very much from the DDC arrangement since they would not use the pre-historical books as much as Archaeology students.

education course by allowing them to access books relevant to them in one block which otherwise may be scattered within the building.⁶

Similarly, in the Near Eastern Collection, books on the history of the “Near Eastern” area written in “Near Eastern” languages such as Arabic, Persian, or Hebrew are put together. Books which are classified in different sections of the library may also be put into the Collection if they are on the history of the geographical region, whether it is on the general history of the region on the history of its scientific development, as well as if they are written in one of the “regional languages”. If they are written in English, then they would not be put in the Collection even if they are on the history of the area. As with other collections, they prefix the notation “NE” to each classification number for books included in the Collection. Again, these notated numbers are available in the OPAC so that users are alerted that the searched for book is in the Collection which is arranged in one block of shelves.⁷

In an interview with a librarian, it was suggested that the Near Eastern collection was developed in response to some discussions between the library and the Middle Eastern Department where there are students who would find it easier if they can find the books in one area.

It's a quite important department [the Middle Eastern Department], and a lot of them [students] actually come from those Middle Eastern countries, it was thought to be helpful to separate most of the books they were going to be using. It is quite likely that academic staff in the department may have discussed with the library. I think that's quite likely. (JC2, 5)

The Latin American Collection is a similar example. If arranged normally according to the classification, Spanish and Portuguese language and literature books would not be differentiated in terms of whether they are actually from Spain or Portugal, or from Latin America. If they were distinguished, students would know which books searched for in the OPAC are from which parts of the world. For solving this problem, the library has formed a special collection of Latin American language and literature books by making a separate sequence with the notation “LAM”. It only applies to books on language and literature, not on other subjects such as the history or geography of Latin America. It was suggested by a

⁶ According to a librarian the researcher (N.I.) spoke to, the Collection used to be kept in a separate room in the Library with separate membership so that people who did not belong to the University could use them.

⁷ As part of the introduction of this Collection, the librarians actually changed a sequence of the DDC as well, so that certain countries can be shelved close to each other. For example,

North Africa 961 (DDC) → 953.6

Egypt 962 (DDC) → 953.1

librarian that this arrangement had been made especially for students studying Spanish and Portuguese languages.

Thus, these collections, e. g., the Deaf Education Collection, the Near Eastern Collection and the Latin American Collection, have been formed more in response to the perceived needs of users from specific institutions of the University.

5.6 Conversion of the scheme

The Library completed the conversion of the Medical section into DDC 20 (Dewey 1989) in 1994. The Medical Library was separate from the Main Library until 1981 and had been using its own original classification scheme which started in 1922. By 1981, the old Medical scheme was fairly obsolete in terms of the subject categories being used in then contemporary medical research and medical training and increasingly inadequate for keeping pace with the recent development of medicine. Furthermore, there was another problem in keeping the old medical scheme. As a result of the Medical Library becoming a part of the Main Library, it became apparent that unless one introduced a way to integrate the two schemes – that of the Main Library and the Medical Library – consistent searches could not be facilitated. In other words, a biochemistry book might be classified differently depending on which scheme the librarian had been using. The librarians tried to manage the problem of an integration between the existing two schemes by making links between numbers in the Subject Index. They were aware that this was not really convenient for users, since it meant that they had to search for books shelved in different places, and so they eventually concluded that another way of integrating the two schemes was needed.

The decision was to convert the Medical scheme into the medical section of DDC 20 (Dewey 1989). The reasons for the decision were fairly obvious, since the majority of the books were classified by the DDC in the Main Library, yet its base was Edition 13 published in 1932 (Dewey 1932), which had already been obsolete for the medical section. Hence, they opted for the latest edition of the DDC, at that time, Edition 19. They started the conversion in 1988, and then switched to Edition 20 when it was published in 1989. The conversion involved a medical expert from the Medical Department. They had expected to finish the conversion in one year, but it took much longer, until 1994.

When the new scheme was completed, they started classifying new medical books according to it. The books already classified under the old scheme were kept as they were, following again, the guiding principle: not to waste time reclassifying old books. Yet, the old books are traceable in the OPAC. For example, if one looks up the subject term “Psychiatry” in the Subject Index, the OPAC will display the information as shown in Table 3.

Table 3: ‘Psychiatry’ in the Subject Index.

PSYCHIATRY ::		616.89
PSYCHIATRY ::	(Books before 1994)	132.0.6
PSYCHIATRY ::	(For Nurses)	610.73689
PSYCHIATRY ::	(Books before 1994)	X20
PSYCHIATRY ::	(Further books before 1994)	131
PSYCHIATRY ::	(Further books before 1994), bibliography	B131
PSYCHIATRY ::	Audio-visual aids	610.78
PSYCHIATRY ::	(Books before 1994)	A1.98
PSYCHIATRY ::	Comparative :: (Books before 1994)	R3

One can see that books on Psychiatry are shelved under various numbers. Before the conversion in 1994, most such books in the Main Library were classified under Psychology, such as 131 or 132, while in the Medical Library, the same books were classified in sections such as X20, A1.98, R3, etc. under its own scheme. After the conversion to DDC 20, they were usually classified under 610 (Medical sciences). And as the above example of display shows, all of them are traceable in the OPAC regardless of the kinds of schemes in which they are classified.

6 Discussion

We have examined librarians’ management of their professional corpus of knowledge as part of their practice as an example of studying the “social distribution of knowledge” with ethnomethodological input. This is to say, we made an attempt to operationalise Schutz’ concept of the social distribution of knowledge by translating this into phenomena practically achieved by members of society. It was demonstrated that the “transcendental” nature of the social stock of knowledge, that is to say, its “being available beyond the here and now” is a members’ accomplishment involving librarians in continually maintaining and revising classification schemes. As part of this management of the transcendental nature of the classification scheme, it was demonstrated that librarians were concerned with issues such as managing the scheme so that it would facilitate systematic searches and that, at the same time, it would be updated by representations of changes in the forms of knowledge fields, whilst preserving “ease of use” for envisaged user types.

The notion of “relevance” extensively informs their work, two dimensions of relevance being prominent. The librarians understand their work to be responsive to the requirements of users, their decisions being shaped to provide what they

construe as “what readers want”. We have paid particular attention to the way that “ready availability” of materials in the library stock is taken as a leading relevance that library users have, and the way that requirement is catered to in the ongoing reworking of the classificatory scheme. The other significant relevance we considered is that of aligning the library’s classification with the relational features of academic and scientific fields as embedded in documented “subject matters” and reflected in the topical character of documents. We have discussed one way in which the librarians attempted to blend the requirement of “ease of access” with that of “keeping pace with changes to knowledge” through applying the principle of consistency. The principle of consistency is important for librarians to follow in managing their collections with integrity, so they try to manage the scheme such as to preserve its standardisation through changes in such a way that their colleagues can continue to work in accordance with the principle. Thus, keeping up with the pace of knowledge is also important in so far as new books can be classified with consistency. In other words, librarians do not try to keep up to pace with the development of knowledge relentlessly, but they make a trade-off between the desirability of making changes to the scheme and the time and resources needed to rearrange the collection to fit the changes to the scheme.

Thus, maintaining the professional corpus so that it stays *relevant* to the collectivity members seems to be central to the community, and what the relevance consists of may vary depending on the community. Further, the existence of a national or worldwide professional corpus of knowledge may not suffice in terms of making their professional principles work, and the ways in which a professional corpus of knowledge gets localised may vary depending on the professional community of organisers who seek to respond to the changing relevancies of users, as we have observed in the case of librarians.

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Ana Horta and Matthias Gross

On Cooling the Relevance Out

Abstract: Given a general rise in dog pets in many societies, dog poop becomes an increasingly important issue. However, it appears as a subject less worthy of serious attention albeit it is known as a source of pollution and, when left on sidewalks and other public spaces, as a significant nuisance to human communities. Public authorities in many countries have considered it as a socially relevant issue by requiring owners to clean up after their dogs. For that to happen, however, dog walkers need to have incorporated the disposition to do so routinely, as a practical mastery enacted without conscious attention. In our research we observed a tendency to establish a respectful distance to others, including when something objectionable – but still with a socially ambiguous relevance, like not scooping dog poop – has been done. In such contexts, embodied dispositions to actively ignore dog waste may be used to save the face of those involved. We discuss several ways how nonknowledge emerges as a form of cooling its relevance out.

1 Introduction

The issue of dog waste in urban environments can illustrate dynamic relationships between relevance and irrelevance. For several reasons this issue is deemed irrelevant. By definition, waste is something that has no value, and in anthropocentric cultures the relations between animals and society have long been considered not worthy of serious attention, let alone dog waste. However, dog waste is a source of pollution and, when not scooped, may be a considerable nuisance to passersby and has been categorized as an environmental pollutant. Dog poop can be placed in the same category as toxic chemicals and acid drainage (cf. Cinquepalmi et al. 2013). Overall, dog poop is not a good fertilizer at all.

Moreover, it not only harms the health and aesthetics of urban spaces as it can be a form of social embarrassment, since its presence in public spaces is felt by some individuals as an indication of lack of cleanliness and, hence, casting shame over the whole community. The existence of legislation requiring owners to pick up after their dogs in many places indicates that this has been perceived by public authorities as a socially relevant issue. However, since the enforcement

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and sanctioning of these regulations are considerably difficult to implement, this legislation requires self-governance, that is, dog owners choose to comply with it (Borthwick 2009). In line with strands of the interpretative or cultural turn in sociology –which emphasize the experiences of everyday life in the construction of meaning, instead of rational action – and in particular with the work of Pierre Bourdieu, we attempt to analyze the problem of dog waste in urban spaces, not as resulting from choices of dog owners, but as dispositions they have incorporated based on their lived experience and interactions in everyday life. From this point of view, we suggest that whereas some dog owners have embodied the disposition to comply with the regulation, others have not. We try to explain this in articulation with the ambiguous relevance socially construed around dog waste.

We use nonknowledge as a useful concept to understand how individuals experience their urban environment in everyday life and, in particular, deal with information about dog waste available in those spaces. We suggest that nonknowledge can be understood as an embodied disposition that allows for some information (the existence of dog waste on the sidewalk, for example) to be “placed beyond the grasp of consciousness” (Bourdieu 1977, 94), and hence avoids the need to act about it.

From this point of view, individuals’ past experiences and environments inscribe durable dispositions (*habitus*) into their bodies, which constitute orchestrated schemes of perception, thought, expression and action that enable them to cope with the situations they face in their everyday life (Bourdieu 1977). Although individuals can adapt to situations and be creative, these predisposed ways of being and acting outrun conscious intentions and therefore actions that appear to be organized as strategies may correspond to a practical mastery and may not really result from genuine strategic intentions (Bourdieu 1977). In the case of activities such as walking, for example, habitual movements learned by the body occur without any conscious attention (Seamon 1979). These embodied dispositions that constitute routines of everyday life become “stabilizing forces”, as they make life easier since only in surprising or out of the ordinary situations individuals have to pay attention (Seamon 1979, 60). From our point of view, regulations such as those on dog waste scooping require that this doing becomes an embodied disposition – that is, performed routinely, without conscious attention or the need to be prompted. To understand how such regulations can become an embodied disposition it is therefore important to analyze how individuals experience dog waste in their lifeworld.

We base our analysis on our observations in Germany and in particular Portugal, but also adding insights from observation in Poland, Norway, Japan, France, and the UK. We draw additionally on a number of informal conversations with dog owners and non-owners on such topics, including the techniques used to deal with excrement, as well as reports and discussions published online.

In thus exploring the ways dog waste is removed, we try and solve the riddle of why, in some cases, even when action has been taken to clean it up, plastic bags filled with dog droppings have been thrown onto the ground in certain carefully selected spots or even hung up in trees or displayed on fence posts or railings. By so doing this chapter builds on some of our previous research (cf. Gross 2015; Gross/Horta 2017) but also departs from it by going deeper into the analysis of new data. The focus on relevance and irrelevance also gives the topic a whole new twist. The chapter will present inquiries into embodied dispositions of dog walking and pooping. Some of these will be accounted for as qualitatively new forms of what Erving Goffman (1971) once referred to as civil inattention. Departing from Goffman we aim to understand inattention as a form of attributed irrelevance that can lead to strategic forms of not knowing or ignorance. Certain types of inattention in the Goffmanian tradition can be understood as a form of balancing out the relevance of doings, as a set of strategies of self-distancing that are required in modern society to “survive” as a social being. Our case presented here is special, however, since the aim of making something irrelevant in human-dog poop interactions is not merely to establish a respectful distance to someone nearby but to conceal the fact that one end of the chain of interaction (the non-human part) has done something often considered embarrassing by humans that, in some cases, calls for attention to be strategically steered to something else. We thus attempt to transform Goffman’s early metaphor of “cooling the mark out”. This refers to efforts to define an unpleasant situation in a way that saves the face of those involved and makes it easier to accept it (Goffman 1952), through a set of activities that we call “cooling the relevance out”. This is intended to refer to the activities surrounding the dog defecating in a public space and the related coping dispositions of the dog owner to keep the potential anger and adverse reactions of passersby “within manageable and sensible proportions” (Goffman 1952, 452).

2 Human-canine interactions and the relevance of excrement

In this section we briefly introduce some aspects of our conceptual framework, most notably the connections between Goffman and the sociology of ignorance that we try to connect to the notion of relevance and irrelevance. We then use certain parts of this framework to illustrate some of the dynamics inherent in contemporary practices involving relations between humans, dogs, and poop. This will be used to point to how actors maintain an acceptable self-image that we extend to include the presence of their dog’s poop. While in the presence of others

individuals learn to manage the impressions they convey by displaying certain signs. Goffman used the notion of “control move” to refer to the efforts made by people who feel they are being observed “to produce expressions” that they believe will improve their situation. These performances are molded “to fit into the understanding and expectations of the society” in which they are presented so that, accordingly, when performing a routine in front of others, individuals tend to incorporate the “accredited values” of the community (Goffman 1959, 35).

However, Goffman’s emphasis on this idealization of performance suggests that his account is based on the notion of a normative consensus; this, however, fails to account for those contexts where the values and expectations of a community are going through processes of social change, as appears to be the case with social norms and understandings relating to dog poop. Then, past experiences and old dispositions may conflict with new expectations. In any practice, whether things go smoothly or there is an interruption or “break”, actors have to deal with the unknown. And in changing contexts, knowledge on how to proceed or what exactly is expected to be done may be lessened. How individuals deal with what is not known may then be a way of maintaining an acceptable self-image in changing contexts. This understanding also departs from the view in which ignorance is seen as necessarily detrimental; instead, it analyzes how nonknowledge can even serve as a productive strategic resource (cf. Gross/McGoey 2015; Wehling 2015). Nonknowledge should thus be distinguished from what is completely unknown (nescience) and can only be known in retrospect. Ignorance as nonknowledge refers to the acknowledgement (by the non-knower herself) that some things are unknown but may be not specified enough to enable action. In our case, we most often observe a strategic regulation between, on the one hand, active or “positive” nonknowledge, where the unknown is specified enough to be used for further planning and activity and, on the other hand, passive or “negative” nonknowledge where the unknown may or may not be specified but is rendered unimportant or even forgotten to be acted upon at this point in time (cf. Gross 2010; 2016). Thus understood, nonknowledge should not generally be understood as ignorance, unawareness, or as the mere absence of knowledge but rather as a specific kind of expertise about what is not known. Central to dog owners’ disposition to walk their dogs, let them poop and clean up after them, only to drop the bag later on, is that they apparently make use of ignorance and non-knowledge in order to present the relevance of cleaning up. One can speculate that this is based on a process of weighing up its strategic outcome when deciding whether or not to clean up the dog’s droppings. When is it relevant to scoop and when is it deemed unworthy? However, dog owners seem to have developed orchestrated schemes of perception and action regarding dog waste that do not allow it to be specified enough to enable action (i. e., scoop it). We

suggest that in such cases the involvement (or lack thereof) of dog owners with their waste does not provide them with the opportunity to acknowledge it nor the fact that they are expected to clean it up. In this context, and since this sensibility is enacted daily, and throughout the day, such dog owners seem to acquire the practical mastery of ignoring that (and what) they are required to clean up. In the following we will elaborate further on the relationship between dogs and their owners using certain aspects of the conceptual approaches introduced above. Particular attention will be paid to the practices involved in permitting a dog to poop wherever it wants.

3 Excrements in public: making the obvious irrelevant

Industrialization and the growth of urban populations have accentuated the sanitary problems of cities. In Europe and North America public health problems were slowly related to filthy environmental conditions, and in the nineteenth century sanitary movements developed (Rosen, 2015). Social and political relevance attributed to sanitation allowed for the implementation of waste-related infrastructures. Furthermore, scientific discoveries in bacteriology, which clarified the transmission of diseases, changed the notion of dirt, which became associated with pathogenic organisms, thus superseding the “old definition of dirt as matter out of place” (Douglas 1966, 35; cf. Jewitt 2011). As processes of controlling and physically removing pollutants from urban spaces have been developed, urbanization, modernization and progress have become related to order and cleanliness (Jaffe/Dürr 2010). Hence, in societies where notions of hygiene are strongly related to public health and waste disposal, waste is not just avoided and kept away, it is intended to be off-sight. Indeed, a characteristic of urban progress has been the invisibility of the processes that maintain spaces clean (Herod/Aguiar 2006). Thus, it seems that while processes of waste removal became taken for granted, waste tends to be marginalized from public attention, as if it were irrelevant. This ambiguity regarding waste is reflected, for example, in a stigma added to discussing waste treatment issues (Lofrano/Brown 2010).

Also toward dogs there is an ambiguous attribution of relevance. On the one hand, dogs are increasingly important in everyday life so that some observers have attributed the status of quasi-family members (cf. Herst 2014) but on the other hand traditional anthropocentrism in the social sciences still excludes dogs as serious subjects of debate and their growing presence in urban spaces

remains neglected by urban planners (Carter 2016). Nevertheless, over the last two decades there has been a boom of research on human-canine interaction in social science (for a summary of studies see Gross/Horta 2017). Unsurprisingly, the way poop is actually disposed of “on the ground”, as it were, and the way this is often kept separate from the overall issue of dog ownership has received little scholarly attention to date (cf. Gross 2015). This is despite the fact that it is a constant topic of debate in local media, internet blogs, newspapers and citizens groups that seek to defend themselves against the “scourge” of dog poop. The heightened visibility of dogs’ pooping, and in addition barking and biting have become considerably controversial in some cities, and dogs have been depicted as disturbing and unwelcome (Instone/Sweeney 2014). Restrictions and ordinances on where and how dogs can circulate (not allowed, only on lead or also with a muzzle, for example, but also specific to dog breeds considered potentially dangerous) have become common. However, whereas for some people the presence of dog excrement in urban places is attributed considerable relevance, others do not notice it.

This calls for attention on how people relate to the place they inhabit. Indeed, the context where most people who do not own a dog experience dog waste is while walking on urban sidewalks and through public parks. Walking has gained relevance as a healthy and sustainable mode of transport and as such has been growingly promoted (Middleton 2010), yet, like other activities routinely performed in our lifeworlds, walking is generally performed without conscious attention and is considered unremarkable (Middleton 2010; Wunderlich 2008). It has also been claimed that in modern societies there has been a reduction of pedestrian experience (Ingold 2011). Moreover, in recent years, growing use of mobile and wireless technologies has contributed to distracted walking and even to unsafe pedestrian behaviors (Mwakalonge et al. 2015). Dog excrement may then escape the perception of many city inhabitants, especially in cities where mobility between places is done mostly by car and shopping tends to be done not in city shops, as traditionally, but in shopping centers, often located in the outskirts of cities.

However, while for many dog waste in urban spaces may remain irrelevant, it has obtained economic interest. Since in many places there are now regulations requiring dog owners to scoop up their dogs’ feces, many companies have taken the opportunity to commercialize special plastic bags and other implements. Recently, many different colorful and fashionable objects (poop bags, bag dispensers, tweezers, sticks, leash attachments, sanitizer gel) have become available not only in pet shops, but also in regular stores, providing dog owners with a new means of displaying their dispositions regarding poop collection. Some of these implements have printed famous brands very popular among

children and young people, such as Hello Kitty, or trendy designs like skulls. There is also an increasing number of scented poop bags. This suggests that the meaning of scooping poop may be changing from something disgusting into something acceptable and even a way of displaying status.

These changing and conflicting norms and understandings relating to the presence of dogs in public spaces can be illustrated by the case of the city of Lisbon, Portugal. In the first decades of the twentieth century, as the city grew and waste-related infrastructures were implemented and modernized, public spaces like green areas were also expanding, thus favoring a different kind of walking and experience of the urban environment, as well as interaction among people. By then the major concern regarding dogs would be the transmission of diseases through bite or saliva, and for that reason the city had vehicles dedicated to catch stray dogs (CML 2017a). There was legislation commanding that owners muzzled their dogs; however, it was “at odds with most people’s feelings” and hence canine companions were most often seen walking freely (Marques 2010, 62). Like in other European countries, as a result of increasing public health concerns, the transmission of rabies gained political relevance (McCarthy 2016). However, while the implementation of mandatory vaccination contributed to eradicate this problem, the presence of canine feces in urban spaces may not have garnered much public attention until mid-1970s. As old signs set into the sidewalks of neighborhoods built in the 1940s and 1950s show, Lisbon’s municipal authority used to appeal for sidewalks to be kept clean by dog owners leading their dogs to the gutter to do their business. The existence of these signs indicates that canine waste was a public issue relevant enough for the municipal authorities to take some action, however, dog owners were not yet required to remove it.

At least since the mid-1970s the cleanliness of public spaces has been a subject of discussion and controversy in Lisbon (Metris 1995). Around the same time public debates about dog waste had become significant in other cities, like Paris, where dog owners were encouraged to lead their dogs to the gutter or to newly constructed dog toilets (Pearson 2016). In New York, where the number of dogs was increasingly high, the issue became strongly controversial in the seventies, and the high number of complaints culminated in the establishment of the Canine Waste Law in 1978, which required that owners cleaned up after their dogs instead of just curbing them to the gutter (Brandow 2008).

As in other countries of the European Union, in the 1980s waste policies developed in Portugal, together with the production of environmental legislation. However, the enforcement of environmental regulations would take place mostly in the 1990s. The same seems to have happened regarding specific regulation of canine waste: in 1995 the city revised its Regulation of Solid Waste

and, considering that (a) animal waste was one of the main causes of dirtiness in the city's public spaces, and (b) the effectiveness of measures taken in the past 15 years in order to raise awareness among dog owners of the fact that they were responsible for removing their animals' waste had so far been appalling, the Regulation became severer. It was established that those who did not comply with the Regulation by removing their dogs' excrement and wrapping it hermetically risked paying fines ranging from EUR 25 to the equivalent of the minimum wage at the time (around EUR 260). The Regulation also established that wrapped dog waste should be discarded into existing bins in public spaces, however, there was no punishment associated with not doing it.

This change in regulation was preceded by the first awareness campaign focused on dog waste launched by the city (1992–1994). This campaign was included in a study of dog waste pollution in Lisbon which assessed the efficacy of three devices (dog waste bags, dog toilets and motorbikes for the collection of waste) as possible ways of tackling the problem. After testing these devices in different areas of the city, the study concluded that those which depended on the actions of dog owners had not been successful, and hence the solution would be the acquisition of motorbikes dedicated to clean up dog waste, without expecting the collaboration of dog owners (Hidroprojecto 1995).

Shortly after that, results of a survey conducted in 1995 among 412 dog owners and 1,405 non-owners residing in Lisbon showed that 80% of non-owners (and 59% of owners) were in favor of fines for those who did not clean up their dogs' waste – 7% of both owners and non-owners said they did not know or did not reply (Metris 1995). This suggests that although the awareness campaign was not successful in changing dog owners' behavior, it may have contributed to bring public attention to the issue. Indeed, the survey also showed that around 90% of both dog owners and non-owners considered the streets dirty or very dirty – and for 65% of non-owners and 33% of owners dogs were one of the main sources of that dirt (Metris 1995). Based on this survey, and coinciding with the changes to the Regulation of Solid Waste that introduced fines for those who did not clean up after their dogs, a new awareness campaign was launched, first in 1995 and taken up again in the two following years. According to what we were told by officials of the Department of Urban Hygiene and Solid Waste of the city of Lisbon, this was the campaign that most succeeded in raising public awareness about the relevance of complying with norms of sharing public space.

The municipal authorities have undertaken several other awareness campaigns since then – either focused on dog waste or broadly encouraging the cleanliness of public spaces –, however, as the problem persisted, in 2004 a new revision of the Regulation of Solid Waste aggravated the fines to a range from one

tenth to one and a half times the national minimum wage. However, the enforcement of this Regulation has been minimal: from February to October 2016 only eight offenses related to canine waste were officially identified. Whereas this number may be partly explained by the fact that a city policeman must have seen the offense being committed, this indicates that these offenses are far from being considered a priority for enforcement agents.

Looking at the statistics on the complaints about dog waste in Lisbon's public spaces made by citizens to the municipal authorities, it is interesting that individuals do not often formally complain about this: 248 complaints were registered in nearly five years (Figure 1). Comparing the geographical distribution of these complaints with the social characterization of each parish population according to data from the Census of 2011 (CML 2017b) indicates that these complaints tend to occur more frequently in parishes with both young and highly educated populations, whereas parishes with aged populations and low levels of education tend to display lower numbers of complaints, as it is the case of the parish of Beato,

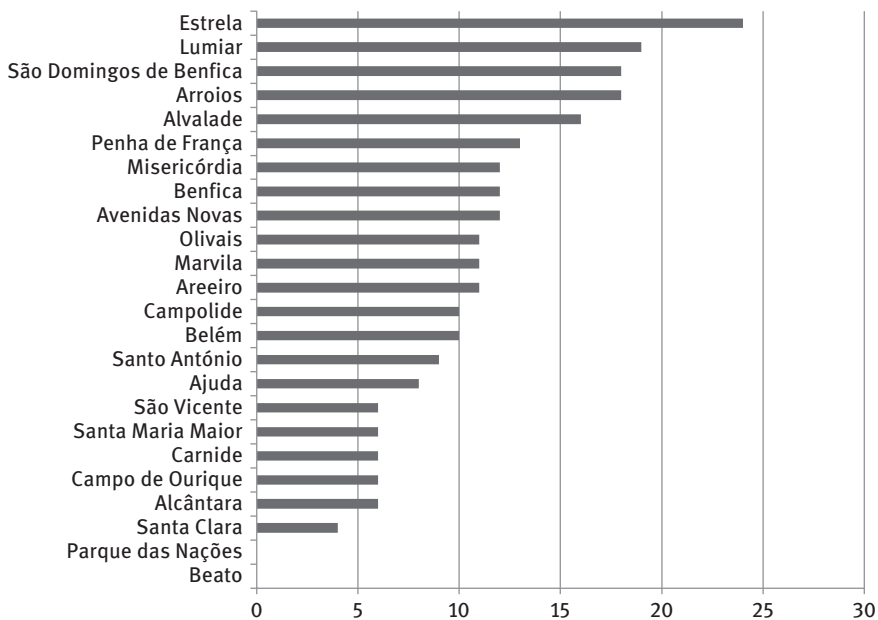


Figure 1: Number of complaints about dog waste from 2009 to end of October 2013 in Lisbon, by parish.

Source: Department of Urban Hygiene and Solid Waste of the city of Lisbon

Note: These parishes correspond to the administrative reorganization of 2012–2013, which aggregated some parishes and created a new one (Parque das Nações).

where no complaint was registered in this period.¹ This suggests that younger generations (which are increasingly more educated) may be progressively more sensitive to the cleanliness of public spaces. This also seems to indicate a change in social conventions related to dog waste – from the idea that it is natural and “‘belongs’ to the place where it has been delivered” (Gross 2015, 41) to something that is offensive and should be remediated.

Another way of analyzing the relevance of dog waste to Lisbon’s dwellers is through the proposals submitted by residents to the city participatory budgeting. Participatory budgets are a form of public government which resorts to the direct participation of individuals in the definition of priorities for the allocation of a budget (Santos 1998). The city of Lisbon has carried out participatory budgeting processes every year since 2008. At a first stage, city residents present proposals based on what they think should be implemented. Then city staff technically analyze those proposals and check whether they are eligible. Next, eligible proposals are developed by city staff into projects (which can aggregate several proposals) and submitted to residents’ vote. The most voted projects are then implemented by the city council.

Data available on Lisbon’s participatory budget website (CML 2017c) show that, from 2008 to 2016, 5,770 proposals have been presented by citizens and 1,829 projects based on those proposals have been voted. From 2011 to 2016, the number of proposals presented each year ranged between 481 and 808. Among them there have always been some exclusively related to dog waste in public spaces or focused on a broader issue but still related to it. By searching through key words, we have found 39 proposals focused on the problem of dog waste, 34 proposals for creating dog parks (which in some cases mention the issue) and 32 proposals referring to the problem of dirt in the streets but without mentioning specifically dog waste. Based on these proposals, three projects directly related to dog waste, fifteen focused on dog parks and four on awareness about urban hygiene have been voted in these six years. However, in spite of the considerable numbers of proposals, the votes cast have been few. The 2016 project for the creation of dog toilets only got 45 votes. Projects focused on raising awareness of dog waste and promoting civic behaviors among owners got 53 votes in 2013 and 25 in 2015. Projects on raising awareness about urban hygiene more broadly got four votes in 2011, 27 in 2012, 23 in 2014 and 13 in 2015. Projects for the creation of dog parks have been more successful, with 91 votes on average. The fact that

¹ That is not the case of the parish of Parque das Nações, which has a young and highly educated population. However, the recent creation of this parish by incorporating an area that previously belonged to the neighboring county seems to explain the absence of data.

a 2016 project of buying three vehicles for rescuing animals got 7,456 votes indicates that, when it comes to choose which projects should be funded, Lisbon's residents who have taken part in these participatory budget processes have had other priorities.

And yet, for those who have submitted proposals related to dog waste, this seems to be a serious problem. In the rationale for those proposals the presence of dog waste in public spaces has been described as “worrying situations affecting public health”, “a scourge”, or “a shame”. Often in these rationales this is attributed to “lack of civility”. Lack of “common sense” has also been mentioned. Since it seems to be perceived that a “change of mentality” (or attitudes) is needed, and apparently that is considered difficult to achieve, some city-dwellers have proposed “aggressive”, “massive” or “very dynamic” awareness raising campaigns. A “municipal policing program” and fines for the offenses have also been proposed, as well as more enforcement. Some of these proposals ask for plans of integrated actions, including compulsory registration of all dogs and owners, awareness campaigns, strengthening of cleaning staff and enforcement agents, and more fines. Among them, there was a program of returning dog waste to owners' addresses, together with a fine and information about ordinances and risks related to dog waste, and then make public information on numbers of returns and owners hit with fines. Milder actions have also been proposed, including the creation of specific areas where dogs can defecate (dog toilets), the existence of dispensers freely providing dog waste bags, more waste bins, signposting, display of examples of good behavior by celebrities residing in each parish and rewards for compliant dog owners. Other proposals, instead of trying to change dog owners' practices, have asked for an increase in the frequency of street cleaning.

Regarding the creation of dog parks, although many of the proposals in favor of these spaces do not mention dog waste and seem to be presented by dog owners who wish that their pets may have areas where they can safely move off-leash and socialize with other dogs, some explicitly state that these areas would contribute to reduce the amount of canine waste in public spaces and allow to “separate animals and people with obvious advantages for safety and hygiene”, as well as prevent dogs from disturbing other users of green areas.

It is interesting to note that underlying many of these proposals there is the idea that accessibility of information is crucial to solve the problem. It may seem as if by giving dog owners information on the public health risks and environmental impacts of dog waste, as well as the ordinances about it, these could be forced to acknowledge the issue. However, since ordinances do exist and several awareness campaigns have already been implemented, the problem may not be just lack of information. We suggest that more than a lack of information publicly

available, there may be a lack of relevance socially attributed to the problem of dog waste. Hence, it seems that dog owners who ignore their duty of poop scooping seem to act as if they perceived that others (or society in general) do not really pay attention to the issue.

Another indicator of the lack of relevance attributed to dog waste is its absence from legislation at the national level. Indeed, unlike the Dogs (Fouling of Land) Act of 1996 (in 2005 replaced by the Clean Neighborhoods and Environment Act) issued by the Parliament of the United Kingdom, in Portugal, like in other countries, dog waste has been a matter of municipal regulation. Thus, it is not included in legislation on pet animals but, instead, in urban waste ordinances. National legislation related to animals emphasizes their well-being and health, and although respect for their physiological and ethological needs is imposed, there is no word about their waste. Thus, circulation in public spaces and accommodation in housing is carefully regulated but public health concerns are almost exclusively related to vaccination programs, with particular attention given to anti-rabies vaccination. In a country where administration is highly centralized at the national level this omission seems to downgrade the issue.

Possibly due to this omission in national legislation, dog owners' duty of cleaning up waste from public spaces is not included in the listings of legislation related to dogs provided on the websites of organizations such as the national kennel club (Clube Português de Canicultura 2017) or the animal welfare league (Liga Portuguesa dos Direitos do Animal 2017). However, that is not the case of another national society (Sociedade Protectora dos Animais 2017), since its website states that, according to municipal regulations, is mandatory to collect animal waste. Thus, also among these organizations there is some forgetfulness about the issue, which also points to a lack of relevance socially attributed to it.

4 Scooping and non-scooping dog owners

In the context of changing conventions we suggest that dog owners are developing diverse dispositions of coping with the issue: some have embodied the habit of always picking up the poop, while others do it only when they are prompted by the presence of someone but then discard the wrapped poop to the ground when nobody is watching. Dispositions of embodied nonknowledge may also take place, like when dog owners have the habit of letting them off-leash and while the owner is using a smartphone, talking with someone or drinking coffee, for example, the dog poops out of the owner's vision. We assume that these latter dispositions can be considered as variations on the same practice – cooling out.

Because the sight of poop in public spaces may be seen to represent a lack or a failure of cleanliness, dog walkers may need to define the situation as inevitable. Consequently, those that do not pick up poop may have developed the habit of not being able to see it. Next we present some cases that we have observed.

One of the dog toilets that were part of the study on dog waste conducted in Lisbon in the early 1990s (Hidroprojecto 1995) was installed in a green area formed by several patches of lawn and a few trees that is highly frequented by dogs and their owners. The dog toilet was placed in a smaller patch of lawn at one of the ends of the green area (Figure 2). Although that study also included an awareness raising campaign about dog waste, dog owners in that area had not been given any information about the dog toilet, and its introduction in the neighborhood happened very discreetly. We witnessed some initial discomfort on the side of some dog owners who, after suddenly finding the dog toilet, felt compelled to encourage their dogs to get inside there (and hopefully pee and poop there), but were confronted with the dog's refusal to get inside that unusually enclosed space, let alone pee or poop. Both dogs and owners already had their own orchestrated dispositions, paths and routines of walking. Most dogs there had the habit of pooping on the lawns, or in other spots along the daily walks, not in enclosed spaces or a specific place exclusively. This would constitute a radical change in their embodied dispositions. When the dog toilet was no longer a surprise, and since most habits of both dogs and owners had not changed, it became unnoticed. Worst, it became a nuisance, since soon the white sand inside of it began spreading over the sidewalk. After some time, and apparently due to absence of dog poop, the sand was not maintained anymore and grass invaded it. Based on our observation, the only use dogs gave it was as a playground, where they could chase other dogs when playing off-leash in that green area. Recently, as an apparent recognition of its uselessness, the dog toilet was removed.

Many dog owners let their dogs off-leash in that green area and, especially in late afternoons and evenings, several dogs and owners regularly meet there. While dogs are off-leash, owners usually chat with each other and often forget to pay attention to their dog. But according to our observations, often, when one of the owners sees a dog walk a bit aside to poop, they give a friendly warning to the owner of that dog about it, who then goes there to pick it up. This warning seems to be interpreted more as useful information than as a hint that action should be taken by the owner, since one of the purposes of being there is precisely to let the dog poop and, therefore, many owners are interested in knowing whether that has already happened or not. However, after being informed that their dog has pooped, owners feel forced to act. As we have witnessed, though, the willingness of owners to clean it up varies from individual to individual. Whereas some immediately walked in the direction where their dog was seen pooping and diligently

searched for the pile (which at night can be a hard task due to low visibility and also the extension of land where the dog did it), others displayed slower movements and less skill in spotting the poop. Often certain owners failed to spot the excrement, commenting that they had not been able to see it (as if the fact that they had not found it just by quickly looking around was enough to obliterate their dogs' poop).



Figure 2: Dog toilet in a Lisbon Park.

Although in those gatherings of dogs and owners there is a collective disposition to notice each other's dog poop, we have also witnessed many times situations in which no one calls attention to the fact that the other's dog is pooping. From our point of view, this happens when the witness (or witnesses) already know that such dog owners do not have the habit of cleaning up or when they sense, by reading those owners' body language, that they do not have the disposition to do it. That is the case, for example, when dog owners look in the opposite direction, steer the witnesses' attention to the opposite direction, or call attention to themselves when their dog is pooping.

Another habit that has become more common over the last ten years or so is that of dog owners scooping up dog poop from a lawn in a plastic bag and then

discarding it often right next to trash bins (even if the bin is not overflowing) or simply throwing it onto the ground in some random spot. In more extreme cases, it is possible in many parks to spot plastic bags filled with poop hanging from small trees, on the branches of bushes, or from fences (for further discussion of this phenomenon, see Gross 2015). As we have seen, this habit of discarding wrapped poop can be regarded as a process of deliberately making and unmaking relevance: managing their use of the poop bag in a particular way may be how the dog owner is able to maintain their routine while simultaneously cooling down their audience.

A common element in the cases we studied appears to be some type of tolerance of or indifference to poop that can still be found in many places. Strategic inattention to poop that is a most important form of constructing irrelevance is suggestive of a kind of passive nonknowledge. In some cases it may simply be forgetfulness. However, this is quite remarkable, given that hygiene in everyday modern life is generally accorded an important status. And yet when it comes to dog feces, people do seem to develop a blind eye.

Thus, not cleaning up one's own dog's poop or even noticing other people's dog poop can be assumed to be a strategic type of nonknowledge or strategic construction of irrelevance. In our terminology we can split this into two embodied dispositions. First, as soon as owners realize it is possible the dog is about to poop, they strategically turn away so they do not have to find out and thus avoid dealing with the consequences. Sometimes owners try really hard not to know whether or not the dog pooped to avoid having to worry about cleaning it up (by talking into their cell phones, say). In a certain way, dog owners actively try to make or do nothing in certain situations. However, the second embodied disposition can be seen in dog owners who are tolerant or rather indifferent to unscooped poop, and so they forget they should pick it up and "wait" (passively) to be made aware of it by other people (e. g., via "a critical gaze"). In such cases their lack of involvement with dog poop does not allow them to perceive it as relevant, instead they only react when other humans watch them. When prompted, their passive nonknowledge can no longer take place and they have to acknowledge the mess and clean it up. Whereas one group actively ignores the defecation act by turning away from it in order to protect themselves and thus making it seem irrelevant, others only acknowledge that they should do something when they feel pressure for doing so. Thus, the construction of relevance and that of irrelevance are often closely linked to each other, they are coupled in a relational way so that embodying nonknowledge (e. g., by looking away and talking on a cell phone) can lead to indifference (actually forgetting about the fact that the dog may have defecated).

The strategic element entails the desire to avoid having to deal with the issue seriously. Thus, dog owners letting their dogs poop in public without cleaning up

after them can be theorized as a disposition to cool out by looking away, i. e., using active nonknowledge as a strategy for cooling out (Goffman 1952). Specifically, this strategy allows to ensure that the dog owner is recognized by passersby as being “innocent” of not picking up their dog’s poop due to not having seen it (active or “positive” nonknowledge made to look as if it is nescience, i. e., completely unknown). This could be read as a kind of civil inattention in the sense introduced by Goffman (1971). In other words, the dog’s business is done as if one part (the dog owner) is unaware of it. The owners’ strategy thus is to use nonknowledge as a device to frame dropping dogs as something unexceptional or not out of the ordinary in order to assume other people’s stance of irrelevance towards waste.

5 Cooling the relevance out

The temporal chain from walking the dog, to pooping, to wrapping the poop (or not) and to walking back home is composed of a crucial set of interactions that can be described using a Goffmanian notion of cooling out. These activities include, for instance, scooping poop but then leaving it on the ground. Our assumption is that these activities are a means of enacting civil liberties – that of the dog (to poop where it wants) and that of the owner (to clean up, but also to drop the bag where he or she wants). This appears to be important since, on the one hand, some people regard dog poop as something natural; on the other hand, though, it also seems that these conventions are changing because hardly anybody likes having poop deposited in public places, and in a growing number of places there are laws that oblige dog walkers to pick up their dog’s feces (cf. Westgarth et al. 2010).

It seems that it is important to dog owners to be seen to be doing what is expected of them, and yet at the same time it seems that they are rejecting this social expectation and expressing their scorn towards those who demand it of them by parodying the act. The offence is then caused later on when the poop cannot easily be attributed to a particular dog, thereby potentially inciting the antipathy of non-dog owners towards all dog owners. This raises the problem of governance of everyday life and how to change individuals’ dispositions in order to comply with law when its enforcement is very difficult to achieve. In this case, the ambiguous relevance socially attributed to dog waste seems to legitimate some dog owners’ reluctance to clean up. Their use of nonknowledge as a tool to redeem them from their responsibility suggests that these dispositions regarding dog waste can also be found in other situations of everyday life.

Analyzing different forms of strategically distributing the known and the unknown or the relevant and the irrelevant can be understood as a magnification of the everyday normalcy of practices of creating, hiding, and maintaining conditions of relevance.

Dog waste has been discussed in this chapter as a problem with impacts on public health, hygiene and the environment. However, if we frame the issue as a form of waste that should be kept away from sight, social relevance attributed to it becomes inevitably ambiguous since it is defined as something that has no value and should be (somehow) ignored. This ambiguity in social discourse seems to contribute to the reproduction of habits (both of many dog owners and public authorities) that do not tackle the problem.

To sum up, in this chapter we have examined some of the dynamics of relevance and irrelevance attributed to dog waste by exploring its place in the life-world of dog owners and non-owners. We illustrated that the relevance attributed to dog waste also depends on embodied dispositions and individuals' involvement with others, non-human elements and environments in the unfolding contexts of everyday life. Thus, in some situations dog waste may be ignored as if it were irrelevant, leading to increasing or persistent difficulty in tackling the problem of dog waste in urban environments. These situations include non-dog owners who have not embodied a disposition to pay attention to dog waste in their surroundings, and thus do not exert pressure for the problem to be tackled; dog owners who still have the habit of treating it as natural waste and therefore not as a problem; or dog owners that, in spite of being aware of its significance, have acquired strategies of cooling its relevance out.

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Challenges

Ilja Srubar

The Relevance of the Irrelevant

Abstract: The formation of cultural worlds happens through selective mechanisms inherent to social action and communication. In social theory such selectivity is often thematized as the problem of relevance, i.e. as the problem of preferences orienting action and transforming open possibilities into the reality of specific life forms. The article thematizes the selective “machineries” of pragmatic relevance working in habitus, language, institutions, discourses and narratives. It argues that approaching the formation of cultural life forms from this point of view confronts us with the fact that the selective processes do not annihilate the excluded possibilities, which instead remain on the horizon of the respective universe of meaning while still forming its order. The mutual relation of relevance and the irrelevant within the construction of social reality is discussed in the final part of the paper.

1 Relevance and selectivity

The formation of cultural worlds happens through selective mechanisms inherent to social action and communication. In social theory such selectivity is often thematized as the problem of relevance, i.e. as the problem of preferences orienting action and transforming open possibilities into the reality of specific life forms. Approaching the formation of cultural life forms from this point of view, however, we are confronted with the fact that the possibilities left are not annihilated by the act of their exclusion, but rather remain on the horizon of the respective universe of meaning. Thus, the mutual relation of relevance and the irrelevant, or of order and disorder within the construction of social reality, seems to deserve some consideration.

One of the most prominent scholars who considered the problem of relevance as crucial for a theory of the social construction of reality was Alfred Schutz (1970). If we wanted to trace back the theme of relevance in his work, we would have to refer to the early Viennese period of his thinking in the late 1920s. In his papers from this time we find some notes (Schutz 1996, 3; 2004a, 51–54) in which he conceives of relevance as the basic problem of sociology in general and of the sociology of knowledge in particular. The starting point of his reasoning on

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relevance consists in Max Weber's term "Wertbeziehung", meaning "value-relation", which Weber (Weber 1973) adopts from Heinrich Rickert (1913) in order to offer us an idea of how a cultural world endowed by meaning comes into existence. For Weber, empirical reality becomes "culture" when the actual facts are related to ideal values. It is the relatedness to values that separates meaningful items from meaningless things and molds a cultural order out of the orderless flow of being (Weber 1973, 175). Schutz realizes that this process is central for any theory that aims at the meaning structure of the social world and its constitution. From his point of view, however, such a theory would remain insufficient if it merely presupposed a preexistent system of values keeping the cultural world meaningful. Rather it would have to suggest how such values are constituted and how they provide orientation for social action. Seeking an answer to this problem, Schutz transforms the concept of "Wertbeziehung" into the problem of relevance (Schutz 2004a, Srubar 2007, 151–172). In this context, he looks for acts and social mechanisms which select meaningful elements orienting social action and which create structures of the lifeworld to which "values" would belong as important patterns orienting action.

Obviously, Schutz reverses Weber's leading question: It is not values which give meaning to social action. Rather the social acts constitute relevancies selecting meaningful elements as parts of the lifeworld. Thus, the problem of relevance aims at the selective processes shaping the orientation of action and forming the structures of the lifeworld in which the relevancies are maintained.

Looking at the problem of relevance from this angle we can recognize that the possible realm of selective processes at stake here encloses many constitutive levels which are possibly implied within the scope of Schutzian thought but which have remained undiscussed or only roughly sketched (Schutz 1970; 2004b, 130). Ongoing research in social theory brings forth many inspirational approaches shedding light on the problems connected to the constitution of the relevance structures of the lifeworld and on the selective processes involved. In the following I will not only focus on the constitution of the lifeworld's relevance structures in general but I would like to concentrate also on the selective processes providing differences between relevance systems, i. e., producing the variety of socio-cultural life forms. In this way I will avoid a mistake often made in regard to the phenomenological approach to social reality where the phenomenological search for general constitutive processes of the lifeworld is seen as not sensitive enough for the lifeworld's variety given by its cultural diverseness. Using the example of relevance I hope to be able to demonstrate how such general processes in their progression generate the variety of cultural worlds.

2 The pragmatic orientation of relevance systems

One of the general motives in the Schutzian concept of the constitution of meaningful reality is that of pragmatic relevance orienting action (Schutz 2003a, 56–62, 132–143; 1962). According to Schutz the primary mechanism selecting meaningful elements of the lifeworld consists in the interaction with things and with others. “Pragmatic” in the original sense of “πρᾶγμα” refers to action in its relatedness to others and to objects which represents – together with the act of consciousness – an indispensable process endowing the world with meaning and transforming it into a meaningful lifeworld. While the pragmatic orientation of all relevance systems can be conceived of as an anthropological universal, its outcomes depend on the heterogeneous conditions of its realization. They materialize in various systems of relevancies providing the structure of the everyday world of working and shaping different life forms. Since the human approach to the world is not solely a cognitive one but is carried out by the body with its living experience and emotionality, the results of pragmatic action sediment, on the one hand, to an individual habitus. On the other hand, the pragmatic orientation is revealed in action where it becomes a subject of communication and generates intersubjective patterns of expectations structuring further interaction. Already in this basic process in which meaningful elements of the lifeworld are sorted out and ordered into primary relevance systems we can discern several levels of selecting “machineries” (Berger/Luckmann 1967, 104) providing social and cultural differences. At the core there are certainly the contacts with divergent social and material surroundings which constitute the actor’s living experiences on the one hand and the various artifacts of which the culture consists on the other hand. The selective processes taking place in temporal consciousness when current living experiences are transformed by recognition and recollection into personal typified structures of relevance were described by Husserl and Schutz (Husserl 1999, Schutz 1970). This goes along with an inscription of everyday routines and bodily practices into the corporal memory of habitus.

2.1 The habitus

In that sense, “habitus” is the result of at least three selective “machineries” consisting of working, of the activity of the consciousness and of bodily sensations. If we want to understand how the selective function appertaining to habitus forms the relevance system orienting action, we have to refer to Bourdieu’s concept of habitus as a “structured and structuring structure” (Bourdieu 1977, 78). In Bourdieu, habitus

represents the link between the conditions imposed on actors by social structure and the practices of the actors themselves. Living under different collective conditions, the actors acquire embodied patterns of perception, action and thinking which constitute a “matrix” (Bourdieu 1972, 178) defining the relevance of elements within their operational area. In that sense, habitus represents a selective structure generating relevancies that is similar to the concept of the pragmatic structure of the lifeworld in Schutz (1962) or to the “matrix of the lifeworld” in Luckmann (1979). It comes into action spontaneously without reflection and thus represents an unquestioned background which bestows meaning on our surroundings and actions.

Although Bourdieu (1972, 176) obviously adopts some central items of the phenomenological approach, his concept of the selective processes immanent to relevance systems reaches further. On the one hand, he considers the selective effects which the individual’s belonging to different social collectives and positions exerts on the habitus formation. On the other hand, he shows how action formed by the habitual relevance system is able to reproduce the selective conditions inherent to the social structure which in turn are decisive for the habitus formation. Thus his concept reveals the circular processing of the autogenetic formation of societies that is aimed at already in Parsons’ “Social system” (Parsons 1951) and worked out in Berger’s and Luckmann’s concept of the social construction of reality as a process of externalization and internalization of meaning through interaction and communication.

Bourdieu, however, seems to conceive the self-reproduction of society as a mechanism violating actors and forcing them into imposed forms of habitus and action. Thereby he fails to see that habitualized systems of relevance gain their persistence not only due to their enforced embodiment but also due to emotional ties binding actors to the preferences represented in their relevance systems. Here we have to differentiate between two kinds of selectivity forming individual relevance systems. The first is characterized by a cognitive reflexivity in which the relevance of meaningful elements can change depending on the perceived situation. This type is extensively discussed by Schutz when he deals with the problem of “problematic possibilities” (Schutz 1970; 2004b, 85–90). The second, which is characteristic for habitualized, i.e. embodied, systems of relevance, is difficult to change even when its application does not seem to be appropriate in a given situation. It persists in spite of facts and resists argumentation. Here we are confronted with a different case of relevance constitution whose results – even if originally initiated by external circumstances – are adopted as an indispensable part of identity and are maintained in spite of external pressures. Such relevancies often take on the shape of a prejudice or of a value. Their persistence is conceived of as a guarantee of meaningful order, and the efficiency of their selectivity

is a source of emotional satisfaction. We are touching here on the origin of moral sentiments selecting the acceptable and non-acceptable elements of the lifeworld according to habitualized preferences and charging them with the intense power of emotional motivation.

2.2 The language

But the selecting mechanisms of pragmatic relevance are active not only in their embodied form of the habitus. They are effective also in the communicative construction of reality where they work within the basic communicative medium of language. The basic structure of natural language complies with the need to express action, as it consists of the word classes of subject, predicate and object and has the ability to express temporal differences in the occurrence of events. Thus, pragmatic relevance selects the formal elements of natural languages, and this selectivity is built into the medium as a condition of its creative usage. The selectivity of pragmatic relevance is effective also on the semantic level of language. This becomes obvious when we consider the Schutzian distinction between the topical, the interpretational and the motivational dimension of the relevance systems (1970; 2004b, 98–115). Schutz (2003b, 158–163) reveals that languages are semantically structured by socially constructed relevancies as they lexically select things and themes that are named and expressible while others are not. This pragmatic selection is not restricted to the lexical field. Lexical expressions always also comprise an “interpretation” which includes an appraisal of the object named indicating its social, ethical or cognitive position or value. Such appraisals are connected to typical expectations suggesting how to approach a person, object or situation that was named in this way. Thus, in order to orient action, language comprises evaluating classifications of phenomena expressing their appraisal and suggesting typical programs of action. For example, a male specimen of *Homo sapiens* can be addressed as a man, a gentleman, a guy, a fellow, a chap, a bloke etc., which in each case would modify our intention in approaching him. In that sense, Schutz is correct when he states that language expresses collective patterns of relevance and typifications orienting our action. Thus, if we are looking for a basic context which makes relevance work as a mechanism generating meaning, we discover the interrelatedness of the forms of action (A), thought (T) and language (L). This “ATL” context characterizes the human approach to the world and transforms it into a cultural lifeworld (Srubar 2009). Set into action on this basic level, processes of working and communication create linguistically represented systems of relevance integrating practical, cognitive and bodily selective processes into meaningful patterns enabling actors

to conceive, describe, and communicate the reality they are living in. At the same time, actions framed by these patterns generate habitualized identities to which actors adhere emotionally and which provide a nourishing ground for their prejudices and moral sentiments.

The mechanisms discussed above represent a powerful anthropological universal which is able to form the self-description and self-perception of social collectives and actors through which they program themselves. As the example of language shows, this mechanism, due to its selectivity, molds the structure of the lifeworld into a variety of cultural lifeforms which are sedimented and preserved in different narratives.

However, the selective potency of language as a carrier of relevancies manifests itself not only in providing cultural differences. The reflexive usage of linguistic acts also provides a strategy for checking the validity claimed by propositions and thus to separate the true ones from the false ones. The relevant criteria for the validity of claims may differ substantially depending on their cultural background. But the idea that it may be possible to get in touch with the truth by means of language if only we possess the appropriate narrative seems to be common to all cultural forms from magic religions to logic and philosophical systems. Thus, if we consider the problem of relevance as that of a mechanism selecting meaningful elements of the lifeworld, it becomes apparent that one of the selecting criteria is the belief in the validity of the relevance system. This belief is rooted in the prereflexive embodied experience of the habitus, in the taken-for-grantedness of the linguistically represented patterns of thought, action, and speaking, but also in the implicit expectation that using language may provide authentic knowledge.

It was Habermas (1981) who pointed out the capacity of communicative action to gain veracity. He imagined this mechanism as inherent to the lifeworld and hoped he would be able to work it out if he could only abolish the external factors deforming the free flow of communication through imposed systemic pressures. He believed that the charisma radiated by the generalizable validity of claims that can be reached in rational communication would be appealing enough to establish a system of relevancies leading to emancipatory action. Habermas's theory failed because of its normative restrictions. But the progress of science is also based on the falsification of theories, and the failing of Habermas's theory of communication revealed that discursive elaborations of generally valid claims are not powerful enough to motivate individual action. It became obvious that claims need still another kind of enforcement to be effective. Habermas recognized the selective power of linguistically provided relevancies and he also recognized that this mechanism is affected by external systemic power. But his search for a power-free discourse providing social justice caused him to ignore

- (1) that social justice is based not only on cognitive insights but also on moral sentiments which are always polarizing and thus create conflicts rather than consensus;
- (2) that societies programming themselves by meaning selection always need, and establish, institutions which control the spontaneous selection of meaningful elements through pragmatic relevance, and that, therefore, a theory attempting to eliminate such factors from the context of the social construction of reality necessarily fails to grasp this process in its whole range.

2.3 Narratives and institutions

It is not only in language in the sense of Saussure's "la langue" (1979) that systems of relevance are articulated. They are also represented in the results of the practical usage of this medium, i.e. in the narratives by means of which collectives and actors describe themselves and their surroundings, which create social reality par excellence. The creative potency of discourses generating narratives goes along with the selective power of the medium that allows the separation of meaningful elements in the narration from those which seem to be inappropriate and are therefore ignored or negatively rated. One of the most profound investigations on the selectivity and creativity of narratives was done by Paul Ricœur (1984, 1988) in his study on "Time and Narrative". According to him, the narratives generate relevancies that select and shape the further course of the narration, i.e. they sort out the themes to be presented as well as the means of their presentation. In that sense, the narrative activates the poietic function of language (Jakobson 1960), uniting the selective and the creative potency of language in the course of its practical usage. Ricœur reveals that narration presupposes a pragmatic understanding of the world based on temporality and on the structure of action, and he shows that this understanding is also inscribed into the syntax and into the semantics of language as the medium of narration (Ricœur 1984, 64). He argues that narration based on this pragmatic structure corresponds to the temporal existence of humans and thus represents the universal practice of how they may grasp their reality regardless of whether these self-descriptions deal with history or fiction. In both cases, the narration stands for the temporal selectivity of discourse which emphasizes some elements and endows them with meaning and at the same time drops others, leaving them meaningless. The creativity and selectivity of narratives was also stressed by Berger and Luckmann (1967, 92) in their concept of universes of meaning, who conceive of narrations as a substantial dimension within the social construction of reality. The meaning structure

of these universes is realized in narratives whose semantics select the elements of an approved stock of knowledge. Because of the ambivalent character of their social construction which takes place in both semiotic and pragmatic ways, universes of meaning, however, persist not only due to their medial reproduction. Rather, they also need some “machineries of universe maintenance” which are able to support the medial communication with an external executive power.

At this point, we are approaching a further level of selective mechanisms built into the becoming of relevance systems. This is the level of institutions. The creative and selective potency of narratives that convert the structure of the life-world into a variety of lifeforms does not go unnoticed by the actors involved in these processes. As a result of this, actors and collectives attempt to control the narratives' content and their diffusion, as institutions which enforce these aims in all known societies show. It was Michel Foucault (1986, 1967) who investigated the interlocking of narratives, institutions and actors in discourses of power whose arbitrary course provides decisions about the legitimacy of knowledge, language and action and imposes them on individuals. Considering the problem of relevance, we can rely on three substantial points in Foucault's analysis. First, he stresses that narratives become inscribed into the bodies of the actors as they are involved into the functioning of societal institutions. Second, he points out that the individuals themselves are motivated to adopt the knowledge legitimized by the prevailing narrative in order to participate in the defining power inherent in that knowledge. Striving for truthfulness is therefore not necessarily a result of power-free communication, as Habermas assumes, but rather a motivation inherent in the discourse of power itself. Third, he shows that since the discourses are selective, they exclude parts of the reality they are dealing with, but that these excluded elements are still effective within the excluding narrative as it has to adapt itself to their negation.

Considering these three points we can suppose that the first two can be easily reconciled with our discussion above. The third point, however, represents a problem. Looking for selective mechanisms which differentiate relevance systems, we can agree that the selective power appertaining to institutions as well as to legitimized knowledge is a decisive factor there. In this context, however, the question arises whether the selective function of narratives and of their supporting machineries works solely due to their immanent structure or whether this structure in its factual shape is also affected by those elements which were excluded. Thus, we are confronted with the question whether the excluded elements have any impact on the empirical form of a narrative and thus on the shape of the relevance systems inherent to it. To put it in another way: Does something that was excluded and therefore became irrelevant affect the constitution of relevance as a process generating meaning?

3 The relevance of the irrelevant

Obviously, there are some reasons to pay more investigative attention to selective effects of elements that were denied or rejected by a system of knowledge and therefore declared irrelevant. In that respect Foucault gives us a decisive clue in his conclusion that discourse always means more than it says, i.e. that the inarticulate events in a society also have an effect on a society's self-description and thus on its relevance systems (Foucault 1986). Foucault demonstrates this effect at length in his study on "Madness and civilization" (1967). He shows how the narrative of rationality which accompanies the modernization of western societies starts to determine normality and defines as deviant behavior all forms of action that are classified as irrational. Reason, as Hegel puts it, is considered the prevailing power within the world which governs history and the development of societies (Ricoeur 1988, 194). Rationality is required not only as a cognitive practice but also as a characteristic of all everyday activities. Foucault points out that in addition to the intellectual rationality which appertains to the enlightenment it is mainly the idea of economic effectiveness immanent to the capitalist mode of production which governs the rational relevance system of modern societies. As a result of this, forms of behavior which do not correspond to these patterns of normality are suspected of being irrational and therefore excluded as irrelevant from the context of the acceptable self-perception of modern society. Instead, they are seen as indications of psychic deviance in need of treatment. The suspicion of insanity pertains in this way not only to mental illnesses in a medical sense but rather to all forms of leisure such as the "extensive" reading of novels and to all forms of action without an apparent rational, i.e. economic, aim. But as "madness" needs to be cured, its exclusion induced a number of theories and practices which aim at disciplining the deviant minds and bodies. Thus, the definition of irrational behavior as irrelevant within the context of modern normality involved practices that made the "madness" relevant again within this context. Foucault (1967, 241; 1977, 479) identifies a number of such practices which strive to expel madness from the meaningful range of modern societies while their relevance systems are in turn shaped by the excluded insanity. Such an adaptation of relevancies to the excluded matter implies, on the one hand, a modification of the stock of knowledge, as it requires theoretic taxonomies classifying types of deviance for practical purposes. On the other hand, it also requires the establishment of institutions in which deviance is to be corrected or kept away from "normal" life. Thus, the relevance system is affected by the excluded madness in a twofold way: It has been related and adapted to madness on the level of the narrative self-description and it has been modified by the necessity to develop institutions which are able to deal with madness, i.e. to enforce the narrative and to set it into operation.

So if we are looking for clues indicating how that which was declared irrelevant by a narrative shapes its relevance system we should be able to find them represented in the institutions providing the exclusion. Although the institutions can be conceived as guards localized at the border to the dark inarticulate side of society, they are also mechanisms transmitting elements of the expelled matter into the relevance system of collectives and actors. In that sense, that which was excluded by a narrative remains on the horizon of the society as the tacit condition of its meaningful self-description. In general, we can observe that the presence of institutions regulating a particular class of social phenomena in a society always indicates a potency that shapes the system of relevance but is out of the regulative reach of its current narrative.

The “machineries of universe maintenance” then always work in an ambivalent and paradoxical way: As they enforce the selection of meaningful elements and exclude others, they adapt their structure to the excluded elements, making them included again. Because of this ambivalence, the dynamics of discourse is always characterized by a substantial unpredictability of the discourse’s course and results. This arbitrary processing of the discourse represents an incalculable uncertainty of which madness is an example within the narrative of reason. The autonomous discursive force committing violence against things and individuals (Foucault 1986) is able to threaten any order. Therefore, social institutions aim at its control. As they attempt to tame the violent power of discourse, they transport violence into society in forms which conform to the prevalent social self-description. Thus, although the relevance systems are anxious to expel violence from social order declaring it irrelevant for civilized life, violence remains on the horizon of societies and individuals, shaping their relevance systems as long as human beings have bodies exposed to pain (Srubar 2014).

While the institutions supporting the relevances of a narrative also serve as articulations of the inarticulate, the relation of relevance and irrelevance within the biographic situation of actors seems to be formed in an opposite way. Here the manner in which the institutions articulate and enforce the relevance of meaningful elements may suppress the articulation of the actors’ own relevancies. To understand this, we have to consider the temporality of the discourse, of the institutions, and of the biographies, which are quite different in each case. Discourses thematize and provide a variety of narratives competing for the power of definition. Those of them which are thematized repeatedly become parts of the medial memory of the society. As the results of a discourse are not predictable, its processing is characterized by two decisive moments: The process relies on elements of collective memory which the discourse takes up again, but it remains arbitrary how these elements will be varied during the discourse’s course and which one of them will finally gain acceptance. Thus, the temporality of discourses is circular,

but this circularity provides unexpected results. The purpose of institutions, however, is to ensure that communication and action declared as relevant by the current narrative are repeatedly possible while the irrelevant matter remains suppressed. Institutional temporality then is circular too, but in contrast to discourse its results must be expectable in order to keep the relevance order running.

Both the circularity of discourses and that of institutions exerts imposed effects on the biographies of actors, which are linear and whose preceding parts cannot be taken up or varied again. As a consequence, the habitualized actions and practices realized within a relevance system defined by a particular narrative in the past cannot be simply made ineffective by another one prevailing in the present. Due to the circular temporality of discourses and to the contingency of its results the dominance of narratives over the course of the history of societies changes during the lifespan of individuals and contrasts with its linearity. As a result of this, many habitualized and thus still relevant cognitive, linguistic and behavioral patterns which shaped the biography in the past may become non-practicable and inarticulate in the present as their irrelevance is defined by the current narrative and articulated by its enforcing institutions.

Now we are able to see that the Schutzian concept of pragmatic relevance as a mechanism selecting meaningful elements of the lifeworld sheds light only on a part of this process while other essential moments remain veiled. By extension, this concept itself could serve as an example for the selective function of narratives. But Schutz's pointing out the selectivity of relevance systems as a basic process of meaning constitution provided a valuable insight as well. We were looking for constitutive mechanisms which would make relevance systems different, i.e. which would transfer the general structure of the lifeworld into diverse socio-cultural forms. In order to reveal them we considered several levels of these mechanisms and we worked out how they are active within the interactive and communicative processes constituting meaningful reality. It turned out that when analyzing the meaning constitution through relevance systems as a whole, we also have to consider their relation to that which they exclude as irrelevant. Without regarding the presence of the irrelevant within the discourse, its narratives and its enforcing institutions, we will not be able to understand either its structure or its functioning. The narrative of rationality is senseless without a relation to madness. And, as Berger and Luckmann (1967) state, relevance systems always need practices and institutions providing remedy when irrelevant, i.e. non-functional, elements infiltrate a universe of meaning. Such techniques of therapy as well as narrative strategies which assimilate intruding irrelevances to the current relevance system typically belong to the machineries of meaning maintenance. The conflicting relation of relevance and irrelevance occurring here is most effective on the level of biographies. Parts of biographical

identities that became inarticulate after the dominant narrative changed may remain active within the habitus of the actors and cause traumata affecting individual and collective behavior (Srubar 2016).

If our observation is correct, it will have consequences for considering the way how the sociology of knowledge ought to approach its subject. Its hermeneutical focus should aim not only at the “visible” part of systems of knowledge but it should rather try to trace down the concealed negation and exclusion intended by the narrative in order to gain the context of irrelevance representing the other part which endows relevance systems with meaning.

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Many Ways of Being Relevant. Information Support for Problem Solving and Decision Making

Abstract: This chapter is an essay about topical relevance in the context of problem solving and decision making. It reviews the many ways in which information can be relevant to a problem, that is, assist in solving the problem. It shows how information can assist in problem recognition, definition, and reframing; can provide similar cases and analogous problems from different subject domains to spur creativity; can give the solution outright or building blocks – data and methods – for deriving a solution, and, finally, can suggest ways for assessing the solution. Through this review the chapter expands the typology of topical relevance relationships discussed in the literature; it reinforces the case that topical relevance goes far beyond aboutness and needs to be analyzed as a highly differentiated concept. The chapter provides the basis for designing an information system that supports problem solving by assembling the pieces of information needed to solve the problem and arranging these pieces in an order most useful to the problem solver. The classification of types of relevance presented can serve as a template both for directing search and for arranging search results.

1 Introduction. The notion of relevance

This chapter illuminates topical relevance as it applies to problem solving and decision making. It outlines the many ways in which a document (or a piece of information, or computer software) can be relevant for solving a problem, enabling two ways to improve support for problem solving.

- (1) Looking at the different ways in which a piece of information can be relevant opens up new ways of looking for information to assist in solving a problem in novel ways.
- (2) Information can be arranged according to where it fits into the problem-solving process.

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These improvements could be effected by the user, a search intermediary, or a Problem-Solving Support System, e. g., mortgage underwriting software (Golibersuch et al. 1995; Liu/Ke 2007).

In information science, the notion of relevance is fundamental and widely discussed. For major reviews and a history to 2007 see Saracevic 1975, 1996, 2007a, 2007b, and Mizzaro 1997. Relevance in information science was originally construed as a relationship between a document and a subject, topic, or request; this is now called more precisely *topical relevance*, but relevance is often used loosely to mean topical relevance. Topical relevance is sometimes confused with *aboutness*. In information science, the term *relevance* was first used in the topical sense in bibliometric studies since the late 1920s (Lotka, Bradford, see Wikipedia 2017a). Ability to retrieve topically relevant documents and to reject irrelevant documents is the main measure of success for evaluating information retrieval systems (which mostly retrieve whole documents), making relevance assessment a crucial component of retrieval tests. In the first major comparative retrieval test conducted (for the US Armed Services Technical Information Agency in 1953), there was massive disagreement as to which documents are relevant to a test query (Gull 1956); the situation has not improved much since. Cooper 1971 defined more narrowly *logical relevance* of a statement to a proposition in terms of the contribution the statement makes to proving or disproving the proposition. Green 1995 and Green and Bean 1995 take a differentiated look at *topical relevance relationships*. Relevance to a query is not the same as *relevance to a user*, which depends on many factors, such as:

- Can the user understand the document?
- Does the document contribute information new to the user?
- Does the document fit with the user’s cognitive patterns?
- Does the document support the user’s task?

Early studies on the factors users consider when making relevance assessments include Cuadra/Katter 1967a, 1967b; Rees/Schultz 1967; theoretical work includes Kemp 1974 on *pertinence*. This approach to *user relevance* was taken up again in the 1990s, notably in Schamber et al. 1990, Schamber 1991/1994, Park 1992/1994, and Barry 1993/1994. Wilson 1973 deepened the user- and problem-centered approach in defining *situational relevance*; a piece of information is situationally relevant if it has some bearing on a problem in the user’s situation. Building on the review in Saracevic 1975, Huang and Soergel (2013) “propose a unified and detailed conceptual framework that clarifies the notion of relevance, the many components, variables, criteria, and situational factors that come into play in its definition, as well as the variables that influence its measurement” (Huang/Soergel 2013, 18).

This chapter expands the thinking about differentiating and explicating topical relevance. It takes a task-oriented approach: A piece of information is relevant for a problem solver if it assists in solving the problem; there are many ways in which a piece of information can assist. To discuss these many ways, Section 2 sets the stage by laying out (1) the *types of problems* and (2) the *types of knowledge/information* considered from a problem-solving perspective and Section 3 discusses *matching information to problems*.

2 Setting the stage. Types of problems, types of knowledge/information

To understand the relevance of a piece of information to a problem, we need to understand both the type or nature of the problem and the type or nature of the piece of information.

2.1 Types of problems

Problem type has a big impact on the types and the amount of information required. Table 1 gives important dimensions for problem classification; Table 2 gives a few illustrative references.

Table 1: Dimensions for classifying types of problems. Examples.

1 By purpose	
1.1 Logic problem, math problem, puzzle	Not a focus of this chapter. Much literature, especially in education.
1.2 Investigative problem	Finding out what was, is, or will be. What happened? How did it happen? Why did it happen? Who made it happen? See also Stovall 2005 on investigative journalism. Examples: Determine the causes of a disease. Determine the causes of climate change.
1.3 Design, choice, or decision problem	These problems are all concerned with effecting some change in the world. They overlap, varying on a continuum from creating something new (e. g., creating a new product) to choosing between alternatives (e. g., consumer choice from among several products) to making an up-or-down decision (e. g., on a loan application).

(continued)

Table 1: Dimensions for classifying types of problems. Examples. (continued)

1.3.1 Design problem	Designing new systems (this includes <i>invention</i>) or tuning an existing system to achieve a goal state. Some authors define <i>problem</i> narrowly as the discrepancy between the present state and a goal state (desired state, target state). Determining whether a tuning problem exists requires monitoring data on the present state. Example: Increase the representation of underserved groups in clinical trials to 30%.
1.3.2 Choice problem	Prototype: “Consumer Choice Problem. A consumer (purchaser of priced quantifiable goods in a market) is often modeled as facing a problem of utility maximization given a budget constraint, or alternately, a problem of expenditure minimization given a desired level of utility” (Fandom n.d.).
1.3.3 Decision problem	Most problems require numerous decisions along the way to a solution. This problem type focuses on selecting from a number of more or less fixed alternatives, often just Yes/No, for final action.
1.4 Accomplishing a task	Example: Apply for a visa.
2 By degree of specification and/or certainty. Correlates with degree of difficulty (Wikipedia 2017c; OpenUniversity UK; Hancock 2004)	
2.1 Tame, routine, well-defined problems	Has a well-defined and stable problem statement. Has a known process for solving. Clear criteria for assessing solutions. Tend to be easy.
2.2 Wicked, new, ill-defined problems	No clear problem statement. Incomplete, contradictory, and changing requirements that are often difficult to recognize. No known process for solving. No clear criteria for assessing solutions. Tend to be difficult.
3 By degree of complexity and structuredness. Widely used; see Kim and Soergel 2005 2 and 3 are two separate but not completely orthogonal dimensions.	
4 Problem types in a given subject domain Domains such as Business and Finance, Medicine, Nursing, Architecture, Education, Cooking, and Gardening each have a large list of specific types of problems.	
5 Problem context: Problem in practice (focus here) vs. problem assigned for learning (not a focus here)	

Table 2: More perspectives on problem classification.

Task/problem characteristics	Kim and Soergel 2005
Problems by the type of thinking required to solve	Hatch 1988
Contributions of different types of information to solving a problem	Solaz-Portoles 2008

(continued)

Table 2: More perspectives on problem classification. (continued)

Types of problems in the context of information search	Byström/Järvelin 1995; Vakkari 1999
Problems given to students for learning	Jonassen 2000/2012; Adams 2005
Problems occurring in organizations	Marquardt/Yeo 2012

2.2 Types of knowledge/information used in problem solving

Knowledge/information needed for problem solving can be classified by content (Table 3) and by degree of organization or structuredness (discussed below).

Table 3: Content types of knowledge/information from a problem-solving perspective.

1 Declarative knowledge (conceptual knowledge)	Static knowledge about facts and principles that apply within a certain domain. Knowing why
1.1 Knowledge about structure/schemas/frames	Includes knowledge relating to a problem as a whole – knowledge of problem schemata containing situational, conceptual, and procedural knowledge (de Jong/Ferguson-Hessler 1996) that correspond to a particular problem type (Ferguson-Hessler/de Jong 1990). Also includes situational knowledge, knowledge about situations as they typically appear in a particular domain, including schemata about specific types of situations. Knowledge of problem situations enables the solver to sift relevant features out of the problem statement. For another example, knowledge of the structure of machines that can help with problem solving or that are the object of problem solving (designing a better machine) also belongs here.
1.2 Descriptive vs. prescriptive knowledge	
1.2.1 Data, descriptive/empirical/ factual knowledge	Knowledge of what was, or is, or will be. “Knowing that”. Domain-specific content: facts, definitions, and descriptions.
1.2.2 Prescriptive (deontic) knowledge	Knowledge of what ought to be. Deontic knowledge (from Greek <i>deon</i> , duty). Deontic knowledge is about laws and regulations and about dreams and aspirations (with acknowledgements to Eisenbach/Allen n.d).
2 Procedural knowledge	“How to” knowledge or instrumental knowledge. “Knowing how”, production rules/sequences. Knowledge of actions or manipulations that are valid within a domain. Knowledge of reasoning principles and processes.

(continued)

Table 3: Content types of knowledge/information from a problem-solving perspective. (continued)

2.1 Strategic knowledge	Knowing when, where, and how knowledge applies (strategic knowledge, including knowledge of domain-specific strategies and heuristics). A strategy is a general plan of action that specifies the sequence of solution activities. Strategic knowledge concerns knowing how to organize and interpret the information given, structure it in a diagram, define the system(s) to be used in the analysis, distinguish internal and external forces, list all external forces acting on each one of the system(s) (generalized from Ferguson-Hessler/de Jong, 1990).
2.2 Knowledge of the problem-solving process	Knowledge of the steps to execute to solve a problem. Helps to organize the problem-solving process. May be general or specific to a type of problem. Also helps the problem solver to monitor her own process and recognize when information is missing – metacognitive knowledge.

Compiled from Ferguson-Hessler/de Jong 1990; de Jong/Ferguson-Hessler 1996; Eisenbach/Allen n.d; Solaz-Portoles/Lopez 2008.

We are now looking at knowledge/information from the perspective of degree of organization or structuredness. The problem solver uses both internal and external knowledge. Internal knowledge varies on a continuum from *surface-level* (isolated knowledge elements) to *deep-level* (well-structured, interlinked knowledge):

Surface-level knowledge is associated with reproduction and rote learning, trial and error, and a lack of critical judgment (Glaser 1991). This knowledge is stored in memory more or less as a copy of external information.

Deep-level knowledge (after de Jong and Ferguson-Hessler 1996, Faisal 2009)

- is firmly anchored in a person’s knowledge base and connected to other knowledge by thoroughly processing external information, structuring it, abstracting from it, fitting it to basic concepts, principles, or procedures from the domain, and integrating it into memory;
- is associated with comprehension and abstraction and with critical judgment and evaluation; see, e. g., Marton/Säljö 1976;
- supports the ability to reason and explain in causal terms and to adopt multiple viewpoints about a problem or phenomenon (Snow 1989, 9), making it quickly available and useful for application and task performance (Glaser 1991).
- At an even deeper level, knowledge can be “compiled”, applying reasoning to derive a prescription of how to respond to a given type of problem. Experts have

knowledge “compiled” specifically for use in a certain class of problems as tacit rather than explicit knowledge. Clearly, deep-level knowledge is superior for problem solving.

The idea of levels of structuring and organization applies to external knowledge/information as well; we could speak of deep-level organization of a document, providing one criterion for document quality and applicability to problem solving. In conjunction with the classification of ways in which information can be relevant to solving a problem (Section 3), this provides a good basis for organizing information to support retrieval and arrangement of results to dovetail with the problem-solving process.

3 Information support for problem solving. Ways in which information can be relevant for (assist in) solving a problem

Section 3 discusses how different kinds of information support problem solving in the different stages of the process; it provides a general framework which can be used to detail fine-grained information requirements for a specific type of problem in a specific context. Not all types of information are needed for every type of problem.

3.0 Overview of problem-solving approaches. The relationship of problem solving to sensemaking and creativity

Each writer on problem solving has his or her own sequence of steps in the problem-solving process; Table 4 gives two examples. The process should be adapted to the type of problem. Each step in the process has its own information requirements.

There are many books on problem solving, famously Pólya 1945 *How to solve it* (republished often), which focuses on mathematics but is useful more broadly, and many more that focus on solving mathematical problems in education settings. Books on problem solving and decision making in business and finance, medicine, and engineering are fewer, but still numerous. Here are a few highly useful references on problem-solving approaches and steps in the problem-solving process: Osborn 1993; Harris 2002; Treffinger 2003; Nokes et al. 2010; McNamara 2011 (very useful); Marquardt/Yeo 2012, 7–10; Nickols 2012; University of Kent 2013; Creative Education Foundation 2015; Wikipedia 2017b; Malouff n.d.

Table 4: Steps in problem solving compared with steps in invention.

Example 1. Steps in the problem-solving process. Adapted from Osborn 1993, 86		Ex. 2. Steps in invention (Breton 1991)
Problem definition & fact-finding	<i>Problem definition:</i> Pick out and point up the problem.	(1) Perception of a need. (2) Translation of the need into a technical goal.
	<i>Preparation:</i> Gather and analyze the pertinent data.	(3) Information gathering.
Idea-finding	<i>Idea production:</i> Think up tentative ideas as possible leads.	(4) Incubation and conception.
	<i>Idea-development:</i> Select the most likely of the resultant ideas, add others, and reprocess all of these by such means as modification and combination.	(5) Refinement.
Solution-finding & implementation	<i>Evaluation:</i> Verify the tentative solutions (test, simulation, logical analysis).	
	<i>Adoption:</i> Decide on and implement the final solution.	

We found several papers that discuss information required for specific steps, but only Byström/Järvelin 1995 take a comprehensive approach similar to this chapter. Citing earlier work on expert systems, they define three ways in which information relates to a problem: (1) “Problem information”, (2) “Domain information”, and (3) “Problem-solving information”. Byström and Järvelin studied where and how problem solvers obtain information relevant in these three ways and how they use it in tasks/problems of varying complexity.

Problem solving is closely related to sensemaking

“Sensemaking is [...] creating an understanding of a concept, knowledge area, situation, problem, or work task, often to support action” (Zhang/Soergel 2014). Sensemaking is developing deep knowledge (see Section 2.2). This deep knowledge can be applied to solving a problem, so any information that supports sensemaking is relevant for problem solving. For an overview of the sensemaking process see Zhang/Soergel 2014.

Problem solving is closely intertwined with creativity

Any information that supports creative thought is relevant for problem solving. For references leading into the vast literature on creativity see Isaksen 1995,

Isaksen et al. 2000, Seelig 2012, and Soergel et al. 2017. While creativity is not the focus of this chapter, it is by necessity interwoven in the discussion, especially in Sections 3.2 on reframing the problem and 3.3.3 on analogical reasoning. Creativity is especially important in solving non-routine or wicked problems (Table 1, 2.2).

The remainder of Section 3 is structured as follows

Sections 3.1 – 3.4 deal with information relating to the problem as a whole, starting with 3.1 *Information on defining the problem* (often one needs information to determine whether there even is a problem) and 3.2 *Information on framing the problem* (which could be considered part of problem definition but because of its importance deserves its own section). 3.3 *Information on specific cases or on similar or analogous problems* deals with information that helps the user to further expand her view and understanding of the problem. Information about specific cases of the same problem that people have worked on elsewhere and information on similar problems support a fresh look. Even more importantly, information on analogous problems in different domains allows for transfer of knowledge and of solution approaches from one domain to another; analogical reasoning is an important driver for arriving at creative solutions. 3.4 *Information on ready-made solutions* discusses information that provides a solution. If no solution is known, the problem solver needs to get inside the problem; she needs Section 3.5 *Information on building blocks and tools for solving the problem*. Finally, getting back to the problem as a whole, the user needs Section 3.6 *Information on assessing solutions* – how well does the solution work once implemented. For a detailed section outline see Table 5 (next page); it can be used as a preview, a guide that provides orientation as the reader goes through Section 3, and a detailed summary and aide-memoire for Section 3.

3.1 Information on defining the problem

Understanding the nature of the problem and defining the problem well goes a long way toward solving it. Information that helps the user to gain such understanding is highly relevant.

This is partially covered in Byström/Järvelin 1995 (1): “*Problem information* [...] describes the structure, properties, and requirements of the problem at hand”, such as “in bridge construction, information on the type and purpose of the bridge and on the site where it must be built”.

There are many pieces of information required for a complete definition of a problem, starting with “What type of problem is it?” (Section 3.1.1). The remainder of this section focuses on design, choice, and decision problems (Table 1, 1.3). The

Table 5: Ways in which information can be relevant for solving a problem.

3.1 Information on defining the problem.

- 3.1.1 Information on the type of the problem.
 - 3.1.2 Information on the present state. Where are we now?
 - 3.1.3 Information on the causes of the problem. Why does the problem exist?
 - 3.1.4 Information on the significance and priority of the problem.
 - 3.1.5 Information on criteria for assessing solutions.
 - (1) Information on outcome criteria.
 - (2) Information on criteria pertaining to resources required, to constraints, and to opportunities and risks.
 - (3) Information on context: Stakeholders and their agendas.
Who wins? who loses?
-

3.2 Information on (re) framing the problem:**Problem representation, questions to ask, ways to look at the problem.**

3.3 Information on specific cases or on similar or analogous problems. Case-based reasoning.

- 3.3.1 Information about or relevant to specific cases involving the same problem.
 - 3.3.2 Information about or relevant to a similar problem.
 - 3.3.3 Information about or relevant to an analogous problem. Analogical and metaphorical reasoning.
-

3.4 Information on ready-made solutions or on solution attempts that failed.

- 3.4.1 Information that provides a solution or precise instructions for creating a solution.
 - 3.4.2 Lessons learned from cases involving the same or a similar or an analogous problem.
 - 3.4.3 Information on solution attempts that failed or can be ruled out on other grounds.
-

3.5 Information on building blocks and tools for solving the problem.

- 3.5.1 Information on steps in solving the specific type of problem.
 - 3.5.2 Information on how the problem can be divided into subproblems.
 - 3.5.3 Information that explains the mechanisms or forces at work in the problem domain.
 - 3.5.4 Information that gives methods and tools useful in solving the problem.
 - 3.5.5 Information on data needed for solving the problem, both the types of data or documents and the actual data or documents or the sources where they can be found.
-

3.6 Information/data needed for evaluating solutions according to the criteria specified.

problem solver needs to understand the present state (Sections 3.1.2 and 3.1.3) and the significance of the problem (Section 3.1.4). Then she needs to understand criteria for assessing problem solutions (Section 3.1.5).

For an interesting discussion of problem definition with examples see University of Portland n. d.; Harris 2012 discusses assessment criteria (Sections 3.1.5), casting a broad net; see also Venge 2011.

3.1.1 Information on the type of the problem

Ideally, there is a brief description of the problem, which may already give information on the problem type, else the problem solver needs to infer it. An automatic classifier may take the description as input and then output a characterization of the problem along one or more dimensions of a typology of problems (see Table 1).

3.1.2 Information on the present state. Where are we now?

For determining the severity (or even the existence) of a design problem, the problem solver needs to know the present state to compare it with the goal state. This is empirical knowledge. Obtaining this information may require substantial data collection; see the following example.

Assume the dean of a medical school needs to know, across all clinical trials presently active, the percentage of trial participants who belong to an underrepresented group. IF the medical school has a clinical trial management system (CTMS), and IF the CTMS information tells whether a participant belongs to an underrepresented group, and IF the IRB-approved trial protocols allow use of this information for computing aggregate statistics (three big IFs), then the dean can get the information needed easily. (The IRB (Institutional Review Board) is the group that approves human subjects research at US universities.) Otherwise, IF individual investigators specify targets for trial participants from underrepresented groups, then these numbers could be used for an estimate, even though it is not known to what extent each trial meets its target. However, these data are often not available. The dean may not be able to get the data needed to determine whether the medical school meets the target set by a funding agency (see Section 3.1.5 (1)). Consequently, the dean cannot determine whether there is a problem and how severe the problem is without a major effort for data collection that requires collaboration from the investigators.

The present state must be monitored regularly to see whether a problem has come into existence or whether a problem that did exist has been solved. Friedman's 2015 management framework *Results-Based Accountability* takes this approach to defining the problem and then tackling the solution. For another example, consider the biodesign fellow at Stanford who spent months shadowing neurologists and neurosurgeons in a hospital. She noticed that many patients suffered from tremors in the hand, a large problem (Seelig 2015, 13–14). While the requisite data might have been available in the literature, the data collected through first-hand personal observation were more compelling for recognizing the problem and being energized to look for a solution. Compellingness is a factor to be considered in assessing relevance (Tonelli 2012), especially for information that leads to recognition that there is a problem and provides the motivation to solve it.

3.1.3 Information on causes of the problem. Why does the problem exist?

Information answering this question (explanatory knowledge) is highly relevant, as it is required to find a solution. This is closely related to Section 3.5.3 *Information that explains the mechanisms or forces at work in the problem domain.*

3.1.4 Information on the significance and priority of the problem

Where does the problem rank in the list of competing priorities? How urgent is it? This drives allocation of resources for the problem-solving process and for implementing the solution. Assume most clinical trial participants are middle-class, middle-aged white males, but the medical issues are different for people from other races, for women, for children, for the elderly. To achieve the goal of improving health for all, we need broad medical knowledge considering all groups in society, so the problem of recruiting clinical trial participants from all groups is highly significant. On the other hand, if the medical issues studied are the same for everybody, the problem is not significant.

3.1.5 Information on criteria for assessing solutions

Assessment criteria are an integral part of problem definition; problem solutions must be designed to perform well on these criteria. There are three overlapping groups of assessment criteria:

- (1) Outcome criteria.
- (2) Criteria pertaining to resources required, to constraints, to opportunities and risks.
- (3) Criteria considering the context: Stakeholders and their agendas. Who wins? who loses?

(1) and (2) consider the solution on its own merits for solving the problem. (3) considers how the solution fits into a wider context, including stakeholders and their agendas, the power dynamics, who will work for, who against a possible solution.

All criteria must be applied in assessing ready-made solutions found (Section 3.4), in assessing alternative solutions considered throughout the solution development process, including piloting (Section 3.5), and then in assessing the solution chosen and implemented (Section 3.6).

This brief discussion shows that information about metrics, about methods for collecting the needed data and algorithms/formulas for computing the

metrics, and about critical assessment of these metrics is highly relevant to problem solving. Getting the data needed and applying the assessment criteria are discussed in Sections 3.5 (especially 3.5.4) and 3.6.

(1) Information on outcome criteria

The definition of a design problem (designing a new system or tuning an existing system) hinges on **specifying the goal state. Where do we want to be?** The goal state may be specified by the problem solver, but more often it is given by another party, such as by law, by a government agency, by company management, or by generally accepted standards; criteria may be derived from user requirements (from published user studies or a user study conducted as part of the problem definition process) or “derived from knowing what is in the best interest from a professional or dispassionate perspective” (Eisenbach/Allen n.d.). So information that specifies a goal state and/or ways of determining whether the goal state is reached is relevant to a problem; so is information that specifies other criteria for evaluating a problem solution. This is prescriptive (deontic) information. Each problem in a given situation has its own set of criteria on which information must be found, as shown in the examples. These criteria may change over time and must be monitored regularly.

-
- An expert panel appointed by the Ministry of Health may specify a healthy range for salt.
 - An agency funding clinical trials may specify that 30% of trial participants should come from underrepresented groups (because effects observed may differ by group).
 - A group ranking universities may use the average test scores of the incoming class of students as a ranking criterion, causing university administrators to set a target value.
 - Government regulations or bank rules may specify criteria for approving loans.
 - The management of a software company developing an interactive program may want to limit to 5 user errors in one session.
 - Comparison with the performance of other systems may establish a benchmark, for example, information about the percentage of clinical trial participants from underrepresented groups at other medical schools in areas with similar demographics.
-

Outcome assessment criteria must be defined precisely and, whenever possible, operationalized in metrics, keeping in mind that what can be measured is not always relevant and what is relevant cannot always be measured (after Cameron 1963: “However, not everything that can be counted counts, and not everything that counts can be counted.”). On occasion, metrics can be entirely misleading; evaluating solutions on meaningless data is worse than having no data and using informed intuition instead. Also, collecting the data for desirable and meaningful metrics can be very expensive, which calls for pragmatic compromises. For example, metrics for the success of users of an enterprise search system are

very hard to define, and data for metrics that have any meaning are expensive to collect. Automatically extracting search success data from computer search logs is nigh impossible. These considerations apply also to subsections (2) and (3).

(2) Information on criteria pertaining to resources required, to constraints, and to opportunities and risks

Problem solutions must often meet constraints, such as budget and other resources available, including people, timeline, and legal requirements. Constraints are part of the problem definition; solutions are assessed considering resources required, opportunities entailed, risks taken, and timely delivery of the solution. Risk/reward analysis can be applied to the very decision to move forward with attempting to find a solution. For example, the US National Institutes of Health (NIH) has a program designated to grants for high-risk, high reward research.

(3) Information on context: Stakeholders and their agendas. Who wins? who loses?

For better or for worse, the considerations discussed in this subsection may trump the more objective criteria from subsections (1) and (2). For example, the choice of a new fighter plane for the United States Air Force may have as much to do with one of the competing companies being located in the home state of a powerful senator as with the merits of the planes. Information on these contextual factors is highly relevant for the problem solver but often very difficult to come by; stakeholders may actively seek to hide their influence. Among other things, information on the following is important:

- Who are the major players? Who has how much influence on the decision on which solution to choose? What makes each of these players “tick”?
- Stakeholders. Who wins, who loses power, money, prestige, ego, other benefits?
- How feasible is a solution in the political and organizational climate?

Finally, a solution must meet applicable ethical standards.

3.2 Information on (re) framing the problem: Problem representation, questions to ask, ways to look at the problem

Reframing the problem means to look at the problem from different perspectives giving different views on the problem or different representations of the problem;

the problem is redefined. Each perspective gives rise to a different question that the problem solution must answer. A change in perspective and question can lead to a novel and more effective solution. Consider these examples:

-
- The *misshapen carrot problem* (Cima 2015, also discussed in Seelig 2015). Supermarkets wanted to buy only carrots of medium to small size and with an appealing carrot shape without irregularities. So farmers considered carrots not meeting these specifications as waste and asked the question: *How can we dispose of waste carrots?* They used them for feed or just threw them away. One farmer asked a different question: *How can I transform the misshapen carrots into a form that will sell in supermarkets?* Thus the baby carrot was born, created by carving a misshapen carrot to leave an appealing baby carrot.
 - The *hand tremor problem* (Seelig 2015, 13 – 15) (see Section 3.1.2). Hand tremors originate in the brain – the signals that the brain sends to muscles, so most treatment focused on modifying brain function by working directly on the brain, through invasive brain surgery implanting electrodes or through drugs with significant side effects. Reframe the problem: Focus instead on analyzing the brain signal arriving at the muscle when a tremor occurs and send a corrective signal back to the brain through the nerves in the arm. This led to designing a wearable sensor that does just that. The method was patented, and a start-up for production and marketing received significant funding (Cala Health n.d.; Rosenbluth et al. 2014; Comstock, 2016).
 - *Recruiting for clinical trials*. Recruitment strategies usually focus on persuading altruistic volunteers to contribute to the progress of medical science. But for many clinical trials the problem can be reframed: Participants get innovative medical treatment for free. So a recruitment strategy markets a product that is available for free to a select group of customers. The resulting recruiting campaign is quite different.
 - *Dealing with the deleterious effects of drug abuse*. Most approaches start with the question: How can we prevent people from using drugs and how can we treat drug addicts so they will become “clean”, but success is limited. The problem can be reframed by asking a different question: How can we reduce the harm caused by using drugs? This question led to the *harm reduction approach* (Harm Reduction Coalition n.d.).
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Such change of perspective may be a creative act not supported by information; but it may also be stimulated by information: (1) State the general principle to consider in solving a problem of a given type or (2) give information about a similar problem and how it was solved by a change in perspective. The misshapen carrot problem is a special case of a general problem: What to do with byproducts? Most people ask: *How to dispose of the waste?* They might be inspired by a general document on byproduct management to ask: *How could the byproduct be used or what useful product could be made of it?* Simply looking at other examples of changing perspective might inspire someone to ask a new question and find a creative solution to a problem.

Lists of questions to ask about a problem are in themselves useful information in the process of solving the problem. Some illustrative references:

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- Questions to ask in defining a problem (McNamara 2011).
 - Questions to ask while engaged in problem solving (Wees n.d.; McNamara 2011).
 - Business Process Re-Engineering (BPR) 20 questions (Brown 2007).
 - Questions to assess the condition of a patient and treatment options: The PICO framework (Patient, Intervention, Comparison, Outcome) (Richardson et al. 1995; Centre for Evidence-Based Medicine 2014).
 - Questions to assess relevance and credibility of medical evidence (Jansen et al. 2014).
-

3.3 Information on specific cases or relevant to similar or analogous problems. Case-based reasoning

There is a continuum from cases of the same problem to similar problems to analogous problems (Gentner/Markman 1997); thus, points made in one subsection may apply to other subsections as well. Roughly speaking, similar problems are in the same domain, analogous problems are in different domains. There is a closely related distinction between surface analogies which are characterized by similarity between the objects in both systems and deep analogies which are characterized by similarity in structure (Mair 2009). For each special case, similar problem, or analogous problem, information includes the gamut of types of relevance discussed in Section 3.

3.3.1 Information about or relevant to specific cases involving the same problem

If information is available on how the same problem was solved elsewhere, the problem solver can just adopt the solution. The challenge is to find cases that are very similar to the case at hand.

An example of *case-based reasoning* is solving the problem of *finding the best treatment for a patient*. The physician often looks for similar cases in his own experience, but that is a limited knowledge base. With access to a large database of detailed medical information for tens or even hundreds of millions of people (including genomic data), the physician can find 10 or 20 cases with the same or very similar history and conditions, the treatments these people received, and the outcomes. Based on these data he can decide on a treatment that is promising for the patient at hand, keeping in mind that new treatments may have become available.

Barletta/Klahr 1997 discuss this approach in the context of corporate information systems.

Relatedly, Jonassen/Hernandez-Serrano 2002, writing in education, discuss presenting cases as stories that update the student's knowledge; it is as if the student had experienced the story events herself. Likewise a similar case can be brought to life for a problem solver in the form of a story; such stories, then, are highly relevant for assisting in problem solving. Visser 1995 discusses the use of episodic knowledge and solution elements from previous cases and Liu/Ke 2007 describe a system that uses text mining to find useful information from the description of previous cases; the system automatically detects problem structure to guide retrieval (see Section 3.3.3 on analogical reasoning).

3.3.2 Information about or relevant to a similar problem

Information on how a similar problem was solved may suggest a solution to the problem at hand. If we are not that lucky, we might still be able to learn from a report on how the other problem was solved and what information was used. This is short-distance knowledge transfer.

There are many ways in which similarity can be determined. It may be the same problem in a different context. For example, the problem of recruiting participants for clinical studies is similar to the problem of recruiting participants for usability studies (Krug 2010) and somewhat similar to a university's problem of recruiting students from underrepresented groups. The problem of reclaiming arid lands in Africa is similar to the same problem in India. Developing techniques for casting metals can profit from information about casting ceramics, supporting technology transfer (Breton, 1991).

3.3.3 Information about or relevant to an analogous problem. Analogical and metaphorical reasoning

Reasoning by analogy, transferring understanding from a known system (the source) to an unknown system (the target) is a powerful mechanism in thought, cognition, learning, and problem solving; this might be called long-distance knowledge transfer. As an introduction to the vast literature on analogy, see Gentner 2003 and Gentner/Smith 2012. A problem may be in a different subject domain and on the surface look quite different but have a similar structure; looking at such a problem supports *reasoning by analogy* and *metaphorical reasoning*. Information about systems that are analogous to the system in which the problem to be solved arises is therefore highly relevant. Many people need a hint

on how to apply the analogy in solving the problem at hand. Analogical reasoning is useful particularly for wicked, new, ill-defined problems.

Analogy is

a comparison between things that have similar features, often used to help explain a principle or idea: He drew an analogy between the brain and a vast computer [or between a pump and the heart]. It is sometimes easier to illustrate an abstract concept by analogy with (= by comparing it with) something concrete. (Cambridge Dictionary n.d.)

Analogs can be determined based on *similarity of function*, as emphasized by Breton 1991 and, even more importantly, *similarity in structure*. Hope et al. 2017, dealing with problems of design, define analogy between products based on *purpose* and *mechanism*. See also the review by Mair et al 2009.

The two small examples in Figure 1 further clarify the concept of *analogy*; the substantial example in Figure 2 illustrates the use of analogy in problem solving. The remainder of this section discusses general principles and implications for relevance.

	System	Analogous structures
Source	Toy train	Coupling two toy train cars to create a train.
Target	Inference	Chaining two propositions to create an inference.
Source	Building with Lego blocks	System components: An Adult and a <i>Child</i> . Adult organizes the blocks and finds blocks according to the <i>Child's</i> specs. <i>Child</i> puts the blocks together to build a car or a house or whatever.
Target	Data processing	System components: Database and <i>Processor</i> Database organizes and finds data according to the <i>Processor's</i> specs. <i>Processor</i> processes data to produce a report.

Figure 1: Two small examples of analogy.

<p>Problem: Manager must deal with an employee who is causing trouble or does not do job well.</p> <p>Analogy: Computer user must deal with a computer program that is causing problems.</p> <p>This manager is familiar with fixing computer problems but knows less about fixing personnel problems, so she can use her knowledge of computer problems (the source) to get ideas for solving the employee problem (the target). Analogy is based on source and target having similar structure; it requires abstraction to identify that common structure. Often, the common structure remains implicit, but making the structure explicit allows for more systematic analogical reasoning and thus better support for finding solutions for the target problem.</p>
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Figure 2: Using analogy for solving a personnel problem. (Continued on next page)

The common structure of the two problems shown as a frame with slots		
Frame slot	Values for computer program	Values for employee
Actor	Computer program	Person
Actor capabilities and behavior	Functions the program can perform	Skills; tasks the person can perform
Actor task/purpose	Computer program task/purpose	Person task/purpose
Environment	Computer environment	Organization environment
– Resources	– Operating system, CPU, memory, disk access	– Work rules, equipment, work space, meeting rooms
– Other actors	– Other programs running	– Other staff working
Clashes with other actors	Clash with other programs	Clash with other employees
Possible actions	See below	See below

Possible actions arranged by degree of seriousness.	
Computer program causing trouble	Employee causing trouble
Get help: Check users' groups for plugins or settings that might solve the problem (this is a "meta action").	Get help: Ask around on discussion groups for suggestions for dealing with this particular problem.
Look for conflicts with the operating system or other programs. Change the environment.	Look for conflicts with work rules, with other employees. Change the environment.
<ul style="list-style-type: none"> – Update operating system, increase memory. – Move one of the conflicting programs to a different computer. 	<ul style="list-style-type: none"> – Modify work rules, increase office resources. – Move one of the employees to another place for a better fit and to separate incompatible employees.

<p>Reinstall the program fresh</p> <p>The suggested actions in the employee column require creative thought to move from the source to the target.</p> <ul style="list-style-type: none"> – Reinstalling the program removes corrupted files. 	<ul style="list-style-type: none"> – "Find a description of model employee behavior, then have a talk with the employee and ask that he start fresh and commit to this behavior." – Analogy: "Make a list of all the prejudices and negative generalizations you have made about this employee and do some soul-searching on whether you have been fair. Then talk with the employee about your findings."
Upgrade the program.	Send the employee to training.
Uninstall the program and use a competitor.	Fire the employee and hire a new one.

Figure 2: Using analogy for solving a personnel problem. (Continued)

Application to other problems
Once the common structure is identified, one can think of other problems to which the analogy could be applied , • a disruptive student, • a disruptive animal in a herd, • or even a paragraph in a document that is important, but as written disrupts the flow at the place where it appears.

Figure 2: Using analogy for solving a personnel problem. (Continued)

Note: The analogy and some of the parallel actions are due to Moroney 2015.

The tasks or steps involved in analogy processing are well stated by Plate 2000 (*italics added*; Plate talks about analogous stories, in the quote we replaced “story” by “problem”):

1. *“Retrieval or reminding:* [the process of finding for the problem at hand (the target) suitable analogs to serve as source].
2. *Judgment: rating the similarity* of one problem to another, after conscious consideration. Human subjects are heavily influenced by structural correspondences in making judgments of similarity.
3. *Mapping:* finding the corresponding objects (i. e., the objects that fill the same structural roles) in two problems that share a large degree of structure.
4. *Inference:* proposing a novel solution or consequence in one problem (the target), based on the presence of a similar solution or consequence in the other problem (the source).”

Information is relevant if it supports one or more of these tasks. The problem solver needs:

1. *Information about possible analogs* to serve as the source from which inferences or suggestions helpful for the problem solution can be drawn. This information could come from the problem solver’s memory or from a search in an external database. Finding suitable analogs is very hard, since retrieval must be based not on words or objects but on the structure created by the relationship between objects; see, for example, McCaffrey 2013; Hope et al. 2017.
2. and 3. *Information about similarity and mapping.* Giving the analog is not enough. People often do not see how the analog can be applied to the problem at hand, so they need information on the mapping or on the common structure of the analog (source) and the problem at hand (target) – how the source is similar to the target, the problem at hand. Since the commonality of structure is the reason for the retrieval of the analog in the first place, at least some

information about the mapping should be available as a byproduct of the retrieval process.

4. If a system outside the user – another person or a computer system – could suggest inferences leading to a possible solution of the problem at hand, that would be very relevant information indeed.

Analogy works in both directions. The source analog must be easier for the problem solver to grasp, either due to familiarity or due to more obvious solutions. Thus, consider the background of the problem solver when suggesting analogies helpful in solving the problem at hand.

3.4 Information on ready-made solutions or on solution attempts that failed

This section discusses information on the problem as a whole, in particular on solutions. With luck the solution found elsewhere might work for us, making detailed problem analysis unnecessary. Or the analysis done elsewhere may facilitate the detailed analysis discussed in subsequent sections. Also useful is information on solutions that seem likely, yet that have been attempted elsewhere but failed or can be ruled out on other grounds.

3.4.1 Information that provides a solution or precise instructions for creating a solution

If information provides a solution to the problem that is satisfactory in terms of the criteria laid out in Section 3.1.5, the user can bypass all steps for figuring out or implementing a solution. The information either gives the solution or it gives precise instructions for implementing a solution. For a mathematics problem information could actually give a solution, such as the result of solving a differential equation or the proof of a theorem. In a criminal investigation, the information could give the prime suspects with an account of how the crime was committed.

But for most problems the solution is not a piece of information but something created or changed in the physical or social world. In this case, information can specify steps that lead to the desired result (instrumental knowledge) without the need for collecting further data, experimenting with several approaches, or making any but trivial decisions. Examples include instructions on how to best

puree avocados, a complete cooking recipe that results in a perfect dish, instructions for repairs (such as replacing a faucet washer), or instructions on how to install a program on a computer. Information is also relevant if it gives part of the solution or clues toward a solution.

For more complex examples see the Cardiac Arrest Algorithm in Samuels/Wieteska 2016, 200, Fig. 20.1) and the steps in dealing with a boastful, attention-seeking student detailed in Table 6.

Table 6: Problem: Deal with a boastful, attention-seeking student (From TeacherVision n.d.).

Problem: A student is constantly disrupting the class in order to gain the teacher's attention.
Instructions on how to solve the problem

- 1 Give the student a position of responsibility in the classroom and encourage him/her to set a good example for others (e. g., passing out papers).
 - 2 Post a chart in the front of the room delineating the rules to be followed when responding.
 For example:
 - 1 Raise your hand if you wish to talk.
 - 2 Wait to be called on.
 - 3 Listen while others talk.
 - 3 Assign the student a special project of interest and let him/her present the report to the class.
 - 4 Ignore the student's annoying comments, but give praise when the student describes his/her real achievements.
 - 5 Assign the student to a small group in which he/she must participate primarily as a follower.
 - 6 Provide recognition and positive attention whenever possible.
 - 7 Model appropriate behavior every day for the student, so that he/she can see what is expected of him/her (e. g., role-playing by teacher and/or peers).
 - 8 Arrange parent conferences to discuss any factors that may be contributing to the student's problem in school (e. g., sibling rivalry).
-

3.4.2 Lessons learned from cases involving the same or a similar or an analogous problem

The problem solver may have in her head lessons learned from her own experience or from reading about cases. Here we refer to lessons learned that are crystallized in a separate section of a project report or medical case study or that are compiled from many such reports in a separate publication. The World Bank mandates that project reports include a section *Lessons Learned* to foster knowledge sharing and build a corporate knowledge base that supports better and more efficient problem solving.

3.4.3 Information on solution attempts that failed or can be ruled out on other grounds

Such information, a special case of lessons learned, saves the problem solver from going down blind alleys in a trial-and-error process. Learning from one's own errors is good, but learning from someone else's errors is even better. For example, in the problem of reclaiming arid land, one project may have tried many varieties of plants and found out which do not do well. The next project need not repeat the same errors. For another example, the magazine *Cook's Illustrated* has many articles in which the author discusses making a perfect dish (such as a chocolate cake), detailing many things she tried but that did not achieve the desired result and finally describing what did work.

3.5 Information on building blocks for solving the problem

If no solution is known, the problem solver needs to get inside the problem. The problem solver must (1) construct design alternatives and (2) constantly evaluate them with respect to the criteria specified in Section 3.1.5. Throughout Section 3.5, both these intertwined activities are considered in determining what information is relevant, that is, supports one or both activities. During design, evaluation is often based on projected solution characteristics (outcomes, resources required, fit in the context) or solution characteristics determined in small pilot studies. Section 3.6 focuses on evaluation of the chosen solution as it is implemented.

3.5.1 Information detailing steps in solving the specific type of problem

This information is relevant – it helps the problem solver to organize the work needed to solve the problem (instrumental knowledge). Section 3.0 presented two examples of a general sequence of steps intended to be applicable to any problem. Here we discuss process steps designed for solving specific types of problems in a subject domain. Section 3.4.1 discussed specification of a process, such as a cooking recipe, as a problem solution; such specifications can be followed as a set of instructions with no or minimal further work involved. Here we discuss process specifications where each step requires considerable work (it may be a problem in itself) to arrive at a solution for the specific context. Byström/Järvelin 1995 cover this as (3) “*Problem-solving information*” and say it “covers the methods of problem treatment. It describes how problems should be seen and formulated, and what problem and domain information should be used (and how) in order

to solve the problems”, such as “in bridge construction, the design engineer’s heuristics concerning the pros and cons of various bridge design types”. “It is instrumental information”. See Table 7 for steps in clinical trial recruitment.

Table 7: Steps in the recruitment process for a clinical trial (Mansour 2012).

Step 1: Study Design/Review/Contract
Step 2: Recruitment Plan
Step 3: Budget
Step 4: Develop Recruitment Materials
Step 5: IRB Approval
Step 6: Recruit!
Step 7: Screen!
Step 8: Assess Your Recruitment Strategies

Some other examples:

- *Omega Decision Strategy*TM, a process for loan underwriting (Omega Performance n.d.) (Figure 3).
- *Advanced Paediatric Life Support Algorithms*, a collection of detailed procedures for medical decision making and action (Samuels/Wieteska 2016).
- *A Triage Tool for Emergency Department Care* (ESI Triage Research Team 2012).

3.5.2 Information on how the problem can be divided into subproblems

Subproblems can be defined along system components or along steps in the problem-solving process. See the following examples.

Subproblems by component: *Instructions for building a complex car from Lego bricks* are based on dividing the car into components which can be built separately. So there is a set of instructions for each component. Finally, the components can be put together to complete the car. Just the advice on how to divide the problem of building the car into building components would be helpful, even if the user needs to figure out for herself how to build the component.

Subproblems by component: *Design of an improved incandescent lightbulb* has three main subproblems (Breton 1991):

- producing a filament from the material chosen,
- encasing the filament in an air-tight transparent enclosure,
- creating an environment in the enclosure in which the filament will not burn up at high temperatures.

Subproblems along a sequence of steps: *Developing and implementing a strategy for recruiting participants for a clinical trial*. Recruitment requires a sequence of eight steps (see Table 7), each of which constitutes its own problem.

<h1>The Decision Strategy</h1>	
Opportunity Assessment	
Prospecting	
Does the prospect match the lending institution's profiles? If the prospect is a current customer, can the relationship be expanded?	
Identify opportunities	
Review the prospect's strategic objectives and financial structure. What immediate and long-term needs exist for credit or noncredit services?	
Preliminary Analysis	
Preliminary assessment	
What is the specific opportunity? Is the opportunity legal and within your institution's policy? Are the terms logically related? Do the risks appear to be acceptable?	
Identify borrowing cause	
What caused the need to borrow? How long will the borrowed funds be needed?	
Repayment Source Analysis	
Industry and business risk analysis	
What trends and risks affect all companies in the borrower's industry? What risks must the borrower manage successfully in order to repay the loan?	
Financial statement analysis	
What do the financial statements show about the borrower's management of the business? What trends will influence the ability to repay?	
Cash Flow analysis and projections	
Will the business have sufficient cash to repay the loan in the proposed manner? Which risks will have the greatest impact on its ability to repay?	
Loan Packaging	
Summary and recommendation	
What are the major strengths and weaknesses of the loan situation? Should a loan be granted?	
Loan structuring and negotiation	
What are the appropriate facility, pricing, disbursement method, documentation and covenants?	
Loan Management	
Loan Monitoring	
Is the borrower performing as expected? What caused variations? What are the risks to repayment? How can you protect the institution's position?	

Figure 3: Example of specifying steps in solving a specific problem. Loan Underwriting. *Omega Decision Strategy™* (Omega Performance n.d.).

In a problem with subproblems, information relevant to any subproblem in any of the ways discussed in Section 3 is relevant to the whole problem.

3.5.3 Information that explains the mechanisms or forces at work in the problem domain

In order to devise a solution to the problem, one needs to understand the domain. What are the causes of a disease? What are the causes of the often-observed achievement gap between white middle-class students and minority students? Which of the causes are susceptible to a change or can be counteracted through an intervention? What materials are suitable for producing light? Byström/Järvelin 1995 cover this as (2) “*Domain information* consists of known facts, concepts, laws, and theories in the domain of the problem”, such as “in bridge

Table 8: Building blocks of knowledge for solving a problem. Examples.

Problem	Building blocks. Information on mechanisms at work
Light bulb	<ul style="list-style-type: none"> – <i>What materials can convert electrical energy to light?</i> One answer: carbon. – <i>What environment does the material require?</i> A vacuum or carbon will burn. These are building blocks of knowledge that Swan in England and Edison in the US needed for their designs of light bulbs (Breton 1991). Different answers to these questions are building blocks for different light bulb designs.
Recruitment for clinical trials	<ul style="list-style-type: none"> – Information on what motivates or deters people. What motivations or convictions should recruitment material appeal to? – Theories of behavior change (Czajkowski 2017). – What language and metaphors work to persuade people from different cultures? – What difficulties prevent people from participating (e. g., transportation)? What are ways to address these difficulties in trial design? – How to best explain medical issues to lay people from different backgrounds?
Designing environments for learning and instruction	<ul style="list-style-type: none"> – How students learn. Brain science. – How to use computer programs to engage students in active learning. – Social environment and learning. – Information design – structuring and presenting information – to best support learning.
Medical diagnosis and treatment	<ul style="list-style-type: none"> – Relevant pieces of medical knowledge found based on the electronic health record of the patient (Chesler et al. 1969). – The whole of medical knowledge. Causal pathways in the body.
Preparing a dish	<ul style="list-style-type: none"> – Knowledge how various substances behave at different temperatures. Food chemistry.

construction, information on the strength and thermal expansion of steel constructs”. Table 8 gives more examples.

One useful format for giving such information is a causal map (also called influence diagram). See Figure 4 for a simplified causal map for childhood obesity. It gives the factors at work that contribute to childhood obesity. Someone working toward a solution for that problem can determine feasible points of intervention.

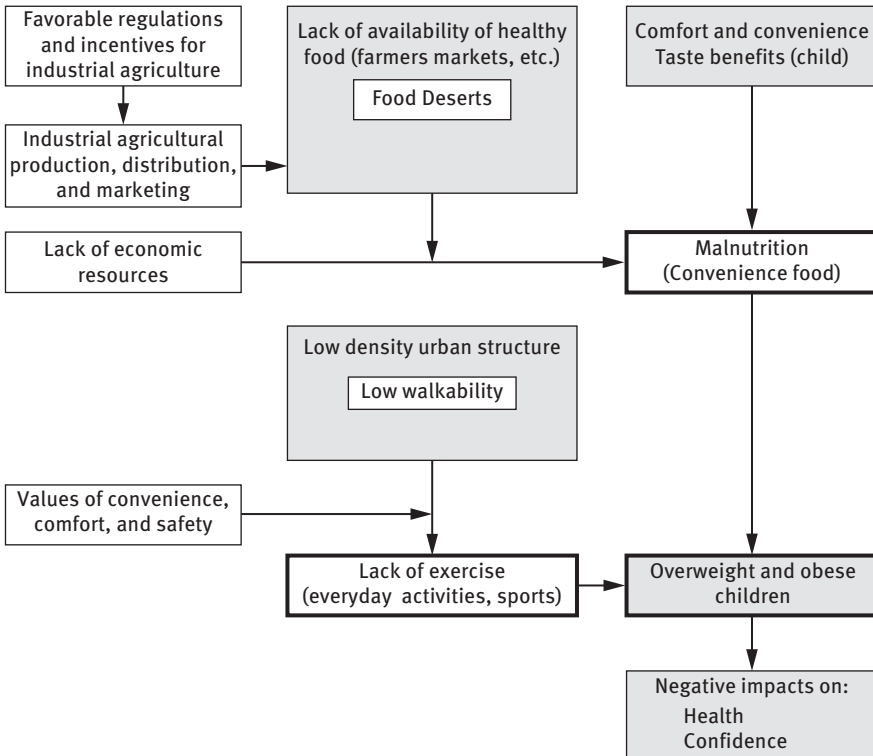


Figure 4: Childhood obesity causal map (Radically simplified from Foley 2012).

The map can be made more informative by giving the cause or actor responsible for each condition. For example:

- The food industry is responsible for producing tasty but unhealthy foods.
- City governments are responsible for poor walkability and unsafe conditions.
- Parents are responsible for serving convenience foods and putting avoidance of conflict with their children ahead of a healthy diet.
- The socio-economic and political system is responsible for there being so many families who lack the resources and knowledge to provide a healthy diet.

This information helps the problem solver understand which causes may be amenable to change and which are very hard to change and what actors need to be influenced to effect change. For a more complex causal map for obesity see Vandebroek et al. 2007; Finegood et al. 2010. Knowing about cause and effect is perhaps the most important and also the most complex information needed in devising problem solutions. Causality is a multifaceted complex domain, see Pearl 2009 for a comprehensive treatment.

3.5.4 Information that gives methods and tools useful in solving the problem

This includes methods and tools that support design and methods and tools for projecting or estimating the performance of a design alternative (possibly involving simulation and/or pilot testing) according to the criteria specified in Section 3.1.5 regarding outcomes, resources required, and effects on stakeholders. Table 9 (p. 251) gives some examples.

3.5.5 Information on data needed for solving the problem, both the types of data or documents and the actual data or documents or the sources where they can be found

The problem solver needs to

- (1) know what types of data or documents are needed and how these data are used in devising a solution;
- (2) get the actual data or documents or know the sources where they can be found.

See Table 10 (p. 252) for examples. A problem-solving support system should provide both. For each type of information needed for solving the problem, the problem-solving support system should

- give a list of sources where the data already exist or from which the data could be collected, with an evaluation of the usefulness of the source and the quality of the data from the perspective at hand, and methods for collecting data from the source;
- import actual data, as available so that the problem solver can analyze and use the data with minimal effort;
- give methods for data analysis.

Table 9: Information on tools useful in solving the problem.

Problem	Information on tools
Deciding on a loan	<ul style="list-style-type: none"> – A scoring formula for the borrower's ability to pay the loan back – Methods for economic forecasting
Economic forecasting (which in turn is a tool in deciding on a loan)	<ul style="list-style-type: none"> – Software for economic forecasting – A database where one can find needed economic data
Recruitment for clinical studies	<ul style="list-style-type: none"> – Methods for projecting the effect of wording changes in recruitment materials on the recruitment of participants from different underserved groups – Tests to determine candidate participants' eligibility
Designing environments for learning and instruction	<ul style="list-style-type: none"> – Tools for rapid prototyping of designs – Tools for determining the reading level of texts – Tools for analyzing usability by people with disabilities – Methods for quick usability testing (Krug 2010) – Methods for projecting or measuring the effects of using a given design on students' learning, attitudes, and social interaction – Methods for projecting resources required (equipment, skills of teachers and students, money) – Methods for projecting how widespread use of these environments would affect teachers
Helping a student who has difficulty reading	<ul style="list-style-type: none"> – Tests the teacher could give the student to pinpoint the cause(s) for the difficulty
Business Decisions (Make or Buy and Shutdown problems) (FAO, 1997)	<ul style="list-style-type: none"> – Software for cost estimation
Designing an automobile that protects passengers in case of a crash	<ul style="list-style-type: none"> – Information on the properties of materials – Information on how to measure properties of materials – Information on how to conduct virtual crash tests in a simulation (Becker/Zirpoli 2018)
Making the perfect omelet	<ul style="list-style-type: none"> – Information on special omelet pans
Repairing a faucet	<ul style="list-style-type: none"> – Information on a special tool needed

Return to p. 250, Section 3.5.5.

Table 10: Information on types of data needed for solving a problem and sources of actual data.

Problem	Types of data needed. Examples	Sources for actual data
Mortgage loan processing (Omega Performance n.d.; Zillow n.d.; Galden 2007)	<ul style="list-style-type: none"> – Data about the applicant – Specific documents required – Data about interest rates and home value forecasts 	<ul style="list-style-type: none"> – From applicant, from Web – From applicant, from lender – From economic data websites
Credit score computation (Consumer Financial Protection Bureau 2017)	<p>Traditional:</p> <ul style="list-style-type: none"> – Financial situation and history. <p>Alternative:</p> <ul style="list-style-type: none"> – Bill payments, – Electronic financial transactions, – Social network data. 	<ul style="list-style-type: none"> – Credit bureau – From applicant or bank or utility – Bank transactions (w. permission) – Social network analytics
Helping a student who has difficulty reading (Lapkin n.d)	<p>Data on</p> <ul style="list-style-type: none"> – The student’s visual ability, esp. eye tracking – Auditory processing – Ability to distinguish letters, perceive the orders of letters correctly, and connect letters to sound; degree of dyslexia – Attention span. Degree of ADHD 	<ul style="list-style-type: none"> – The student’s record, especially an Individualized Educational Plan (IEP) – The student’s medical records, if available – If needed test results not available, administer tests (see Table 9)
Citizens need clean drinking water (Ohio Environmental Council 2012)	<ul style="list-style-type: none"> – Information on the suspected violator: emission events, water samples, fish kill photos – Self-reports of the company to the EPA about the amounts of various pollutants discharged – Evidence of how the alleged violation has a specific adverse impact on the complainant 	<ul style="list-style-type: none"> – Collected by citizens’ group – US EPA ECHO database (Enforcement & Compliance History Online) – Collected by individuals and citizens’ group

3.6 Information/data needed for evaluating solutions according to the criteria specified

Section 3.5, especially 3.5.4, focused on projecting or estimating the performance of design alternatives. This section focusses on assessing and monitoring the

actual performance of the design chosen and implemented in the real world. Beta testing is somewhere in between, deploying a design in the real world, but with a limited number of users (more generally: a limited scope of application) and with the goal of detecting issues and fine-tuning the design.

Information on metrics and data requirements was discussed in Section 3.1.5 and further elaborated in Sections 3.5.4 and 3.5.5. Here the focus is on information on tools for large-scale data collection in the real world and on how to get data that are collected routinely in the course of conducting business; for example, data on production costs and sales or, for a non-profit organization, data on

- the outcomes of a program (benefits for the program’s audience)
- resources expended on the program (which requires program-based accounting)
- how well the program is received by various stakeholders.

Before and after data and data from other systems for comparison are more important here than in other steps. The problem solver also needs to know about methods and tools for analyzing these data (often voluminous) and how to combine data from disparate sources.

4 Conclusion

We reviewed a gamut of types of information and the many ways in which they are relevant to a problem, that is, assist in solving the problem. This review expands the typology of topical relevance relationships discussed by, for example, Green 1995; Green/Bean 1995; and Huang/Soergel 2013; it makes clear that topical relevance goes far beyond aboutness, and that topical relevance needs to be analyzed as a highly differentiated concept. On the practical side this review provides the basis for

- teaching problem solvers what information to look for and how to use it;
- teaching human intermediaries to better assist problem solvers;
- designing an automated problem-solving assistant, an information system that supports problem solving; such a system, often specialized for a given type of problem, assembles the pieces of information that are needed to solve the problem and arranges these pieces in an order most useful to the problem solver.

To achieve this, people and systems can use the classification of types of relevance presented in this chapter as a template, both for directing search and for arranging search results.

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Hermílio Santos

Alterity and Biographical Experience: Relevance in Mediated Interaction

Abstract: This chapter investigates the hypothesis that new media represent an environment which provides new elements for social interaction. Even without replicating the social configurations proper to face-to-face interaction, mediated interaction is not able to eliminate the presence of such elements as alterity, deception and stigma. It is argued that the perception of alterity in cyberspace is markedly instrumental, since it serves as a reference to the establishment of stigmatized relations. I argue that the mediated interaction process is deeply marked by alterity, and this perception of the other is not constructed exclusively considering the interactional contexts; on the contrary, it overflows this moment and incorporates in it the biographical experiences of those involved in the mediated interaction.

The increasing importance given to the generation of knowledge has been provoking some transformations in the production of wealth. Three categories resume the characterization of the modern market-place: routine services, customer-oriented services, and the so-called “symbolic-analytical services”, or knowledge industry (Löffelholz/Altmeyen 1994, 572), such as software design, market analysis, media information services, or interpersonal communication and entertainment, among other activities.

The new media sector is one of the most prominent areas of the knowledge industry. According to Manovich (2001), new media cannot be understood only through the role of the computer in the distribution and exhibition of information (see also Zec 1991). The innovative aspect of new media is given by its language or, in other words, by the fact that all media contents are translated into numerical data accessible via a computer (Manovich 2001, 25). In this sense, the term “new media” does not refer to a physical platform or hardware, or even to the newest communication gadget, but to the way content is produced, transmitted and “manipulated”. Objects in new media can be described mathematically, meaning that their description is possible through mathematical functions, making the media contents “dematerialized” – separated from their physical form as printed books and photographs, for instance (Lister et al. 2003, 16). This possibility gives media a quite new dimension, allowing it to deviate from mass standardization – peculiar to industrial societies – and to customize it (Steemers 1999). Given this

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technical change introduced by digitalization, we have seen in the consumer market in recent years the introduction of communication platforms that explore the possibilities of making interaction even more mobile than it was before.

My hypothesis here is that, although digital media (or “new media”) can potentially increase the interaction between an unlimited number of individuals, this interaction follows a criterion of complementarity, i. e., actors seek to interact with those agents that could optimize available resources, as they are pragmatically driven in the interaction process. And it seems that individuals in interaction follow similar paths in defining their counterparts for the interplay process, with the particularity that individuals are strongly oriented by their biographical experiences in defining relevance in the interaction process. The purpose of this chapter is to approach some aspects of mediated interaction and to discuss how a relevance system (Schutz 2003) emerges through biographical experiences and constitutes an otherness perspective in everyday life, be it in mediated or face-to-face interactions.

The interpretive work of individuals implies, in Schutzian sociology, that they have at their disposal a system of relevance and typification that is part of what is transmitted to the members of an internal group through education (Schutz 1979, 119). Although both concepts refer to distinct problems, we can affirm that relevance and typification are elements of the same system, whose role is precisely to “naturalize” or harmonize social life. The sociology of Schutz presents an explicit pragmatic component, since individuals are considered from the point of view of action, or imminent action. Individuals are neither adrift nor submerged under the stream of facts they experience, since they are “equipped” with the instruments needed to guide or at least to instruct their own actions. This instrument is the system of relevance and typification that selects the knowledge on hand that is relevant to their action (Nasu 2008, 91); thus, pure events or facts do not exist; only interpreted facts and events do.

Relevance is the most important problem for the phenomenological investigation of the lifeworld (Nasu 2008, 92), since it implies inquiring into the ways individuals make sense of objects and events around them, that is, into how they perceive, recognize, interpret, know and act in everyday life through the selection of facts from the totality of elements involved in each situation. Experience itself occurs as a process of choice and not as a fatality or as a passive reception of data and information due to the fact that individuals choose which elements of meaning should receive their attention, that is, which elements among those involved in a situation are made relevant. On the one hand, we could say that individuals do not always choose the objective situations of life they must face. In this case Schutz would apply the term “imposed relevance” to describe their situation. On the other hand, individuals can make choices about the attention they give to problems. Those choices are, however, informed by the stock of

knowledge accumulated through previous experiences, their own and also those of others with whom they maintain any kind of tie, even if those other individuals are not their contemporaries. In this sense, present and future choices are in some way influenced by choices made in the past, but not in a deterministic way. This is so because even past experiences are constantly submitted to interpretation and reinterpretation by those who act. In this sense, although anchored by the stock of knowledge, an individual's course of action remains open, although constrained by phenomena over which he or she does not have any control.

It will be argued that the increasing role played by mediated interaction is consistent and convergent with a growing demand for the expression of a subjective perspective on reality, which justifies particular attention to biographical experiences for the analysis of this interactional environment.

1 On mediated interaction

According to Simmel, exchange is the purest and most concentrated form among all forms of human interaction. Although exchange and interaction are both concepts that can cause confusion where one is assumed to be the synonym of the other, in the interaction process we spend our energy on the transmission of “our own substance”, while exchange does not occur due to an object owned in advance by someone, but “due to our own feeling on an object, a feeling that the other one did not possess earlier” (Simmel 1971, 44). This exchange means that the amount of value is greater at the end than before the interactive process, implying that each part gives to the other more than each one possessed earlier. In this context, the singularity of the communication from those involved in the interactive process is preserved. Here, singularity is understood as the possibility for every individual to modify the content of the communicative process. According to Simmel, this transmission constitutes the nature of interaction. The analysis of the interaction process as presented by Simmel constitutes the basis of symbolic interactionism (see Blumer 1969, 2–5).

In *Mind, Self and Society*, Mead affirms that

if the social relation can be carried on further and further then you can conceivably be a neighbor to everybody in your block, in your community, in the world [...]. What is essential is the development of the whole mechanism of social relationship which brings us together, so that we can take the attitude of the other in our various life-processes. (Mead 1972, 272)

With this statement Mead does not prophesy the existence of the Internet and the new interactive media, but he seems to anticipate a concern with mechanisms

of social interaction no matter where its context takes place. This interpretation can legitimate the hypothesis that although social interaction through digital media presents relevant and deep particularities in relation to face-to-face interaction, the analytical starting point should still be non-mediated interactions. This means that at least part of the problems presented in face-to-face interaction is equally present in mediated interaction.

According to Thompson (1998, 78), mediated interactions imply the use of technical means making possible the transmission of information and symbolic contents for individuals situated remotely in space, in time or in both. Therefore, as distinct from face-to-face interaction – which implies a co-presence context – those involved in mediated interaction can be remotely situated in time and space. The development of the new media seeks precisely to enable a real-time interaction, even in distinct spaces, in a synchronic way. What is more, new media allow the creation of other spaces in parallel to physical space. In the digital space we move without distance playing a relevant role (Sandbothe 1997, 65). This is the virtual space or cyberspace. The central issue here appears to be the investigation of the singularities in interactions created by this type of media. The time constraint in interpersonal relations can be reduced, sending us to another kind of space where those relations still find conditions enabling them to happen. The singularity is preserved since it allows simultaneous answers and interpretations, even provoking a reduction on the flow of “symbolic cues” (Thompson 1998, 79), compensated in the last years by the incorporation of images and sound in the mediated interaction. These symbolic cues are gesture or sound complements to the communication, like laughing, changes in the voice intonation, gestures, etc. However, the possibility of real time communication is not sufficient to put these kinds of mediated interactions on the same level as face-to-face interplays, in which the references of time and space of the actors involved are symmetric, except in particular situations, for example when we interact with individuals suffering from autism.

Considerable parts of the mediated communication have been processed through the computer and other mobile platforms, via the Internet. According to Lévy, the computer – and I may add the newest communication media, such as smartphones and tablets – turned out to be “one of these technical dispositives through which we perceive the world” (Lévy 1999, 15). Such a statement appears to corroborate the affirmation of McLuhan that “the means is the message” in the sense that “the social and personal consequences of any means [...] constitute the result of a new crack introduced in our life by a new technology or extension of ourselves” (McLuhan 1996, 21). In a simplified way, we should understand such an affirmation as supportive of the idea that each new introduction of deep technological change, especially of communication technologies, corresponds to the development of new ways of thinking and togetherness. However, technologies do

not bring new forms of behaviour *per se*, whether among individuals, technologies and machines, or among individuals mediated through technologies. In this way, I want to reinforce the fact that technologies are not just historically distinct, provoking different reactions and different combinations of behaviour, but the social-cultural contexts in which similar technologies are introduced are equally diverse, raising new and different ways of social interaction according to the environment.

The environment of mediated interaction introduces new elements to the process of the definition of belonging to a community, since it is parallel to the association to a collectivity marked by face-to-face interactions; those using the new media are equally involved in a virtual collectivity. Besides the technological characteristics, we should be concerned with the effects of new media on social interaction mechanisms. One should investigate the particularities of the mediated interaction through interactive interfaces and whether – and in which ways – such interfaces reinforce the interactive skills of individuals or, on the contrary, in which ways these abilities have been inhibited, and which are the reasons for the one or the other tendency. It is important, in this sense, to describe the mediated interactive process and search for possible explanations for the interactive mode characteristic of new interactive media.

Another important issue raised by the intensive use of interactive media is precisely the process of identity construction of those involved in mediated interaction, faced also as a fundamental element in the constitution of virtual communities. The concern with its own identity, its own reputation, is an important element in the constitution of any community since it plays among other functions the role of a motivation to belong to a certain community (Donath 2000, 29–31). According to Graham (2000, 24), the Internet offers not only a great window from which it is possible to observe the world, but also a space where it is possible to exist and act. This means that cyberspace makes it possible to create an identity not necessarily coherent with the physical existence.

Given the intense use of new communication technologies in our everyday life, some authors (for instance, Pellanda 2005 and Santaella 2007) speak about a technological ubiquity. Besides a technological pervasiveness, we could say that we can also observe the ubiquity of the individual in which the communication technologies play a supportive role, especially because of the possibility of maintaining an individualized expression in different arenas of the cyberspace.

The issue of handling one's own identity, or more precisely, one's own biography, has become even more relevant in view of the increasing challenges posed to individuals in contemporary societies (Beck 2000). These challenges are not limited to material aspects, given, for example, by uncertainties related to the labour market insertion, but they increasingly assume a symbolic dimension

expressed, for instance, by the growing need for an early definition of identities. Individuals find themselves more and more compelled to choose and to define lifestyles that synthesize their place in the world, since it implies “a more or less integrated set of practices that an individual follows, not only because such practices fulfil utilitarian needs, but because they give material form to a particular narrative of self-identity” (Giddens 1993, 81).

There is therefore a transformation in contemporary societies that impacts the place of the subject. If during an earlier period the individual seemed to have before him a horizon surrounded by predictability, protected by kinship and territorial ties, contemporary societies present scenarios surrounded by uncertainties. This is, thus, the macro-sociological background in which the individual finds himself in contemporary Western societies. In this way, the ubiquity of the subject is the permanent activity of individuals trying to assume autonomy in their lives. This is a relatively recent phenomenon in our societies which accounts for the success of, as well as the growing demand for, new channels of communication and innovative forms of expression. All those means of communication where there is only the possibility of being passive, as a receiver only, become less and less interesting because this represents an obstacle to the expression and the “writing” of one’s own life. Thus, greater receptivity seems to be required from the mechanisms and technologies that incorporate the possibility of individual interference not only in the lives of others but also in one’s own life.

From a sociological point of view, those theoretical approaches (for instance, Bourdieu 1986) that minimize or even deny the exploration of the subjective perspective of the actors involved in social phenomena tend to lose their vitality – although they remain quite influential among social scientists – because they do not account for many facets of social reality. Among the neglected aspects are precisely those that involve the subjective interpretation of reality as an expression of reality itself. This interpretation is relevant because it is incorporated into the process of defining the subject’s action. It is precisely these interpretive tools that, in ordinary life, are used to define choices. These are the elements we have in order to formulate decisions. Thus, if sociologists do not incorporate the perspective of the subject, they will be leaving aside all the wealth of material that exists and that is available for an accurate analysis.

From the technological point of view, what can be observed is precisely a tendency towards the diffusion of mechanisms that allow in various ways the expression of subjectivity. However, it should be noted that technologies, especially communication technologies, are not just a channel for the expression of subjectivities. By using a communication technology, be it language, writing, or image, or any digital media, subjectivity is “negotiated” so to speak, and consequently one could speak of a dialectic relationship between the subject and technology.

Subjectivity in its pure state, not communicated to third parties, could only be accessible to the individual her/himself. Once communicated, this subjectivity becomes something different while still preserving its central qualities. It allows us to still call it subjectivity, but in a way that it is permeated by the characteristics of the technology adopted for its expression. In this sense, we could say that the subjectivity of the actor remains intact when expressed by oral or written language, or any digital technologies that tend to amplify subjectivities in time and space. The subjectivity thus mediated by a technology becomes intersubjectivity, because it expresses already in anticipation a consideration of the other. This “consideration” does not imply any altruistic or benevolent posture; it merely means that “the other” is already incorporated in advance in the action script. Then there is an adjustment of subjectivity to the specificities of the technology. The current flexibility and mobility of communication technologies allow a greater malleability of subjectivities, or, more precisely, a greater versatility of the expression of subjectivities. This is not, of course, a different identity, but only the necessary adjustment of the subject in the communication of his/her subjectivity.

Technological ubiquity must be understood as related to the ubiquity of the subject, not in the sense that one determines the other, but in the sense of a reciprocal influence, insofar as one feeds the other. In this way, just as the increasing demand for the expression of subjectivities stimulates and in certain ways guides the development of new technologies, these technological possibilities end up increasing the demand for the expression of subjectivities.

2 Alterity and stigma in cyberspace

The literature indicates positive aspects of the creation of a public sphere in cyberspace. We find very enthusiastic interpretations of this aspect, supporting the idea that relationships in cyberspace could even eliminate or at least minimize the stratified relationships common in face-to-face interaction. Slevin (2000) is one of those supporting this idea. Jones (1997, 9) argues that by overcoming the problems associated with the limitation of time and space, the Internet can recreate a sense of community. Jones (1997, 10) believes that problems of moral, political and social order are the result of a lack of communication and that, by optimizing communication, many of these problems could be solved. The Internet would also be a way to improve the community. After these very enthusiastic evaluations of the possibilities open to communication through new media, it can be observed, however, that this “virtual agora” is also a place for “hates speeches”. Gerhards and Schäfer (2010), for instance, found only limited

evidence supporting the idea that the Internet could be a better communication space. Tianshu (2017) points out possible reasons for the limitations of considering the cyberspace as a superior public environment: information surplus and information distortion. There is no doubt that a cyberspace represents at least a novelty among the possible forms of social relations and interactions. However, the conclusion that the Internet represents in fact an innovation, making possible the construction of a virtual public sphere, still needs to incorporate other analytical perspectives.

Contrary to appearances, the statement of Sennet (1992) that in the contemporary world we are confronted with a corrosion of the notion of public man does not seem to me to be contradicted by the introduction of even more pervasive mediated interaction through new information and communication technologies. It is not exactly the public sphere that is currently improved in this process, since the perception of the other – present also in cyberspace – is an artifice used more for exclusion than for inclusion. To be sure, new communities are built in cyberspace; however, this new space is much closer to a mosaic of different communities, prepared much more to ignore the existence of other communities than to share experiences and make the effort to build a virtual agora.

I suggest that interaction in cyberspace is possible because of, and deeply marked by, the perception of alterity – even when not resulting from a systematic process. And it is precisely the perception of alterity that precedes and reinforces the stigmatized relations observed in cyberspace. Alterity implies the perception and recognition of the other, but this recognition does not imply any sign of mimetism or even of a priori acceptance. Alterity is an indispensable moment in the interactive process and not a guarantee that such a process will develop in a fair, moral and symmetric way, which means the subjects involved in this process are not equal beneficiaries of the interactive results. Alterity, i. e., the relation of the self to the other, provokes fear, segregation and exclusion (Jovchelovitch 1998, 69) and is the product not only of social construction, but is the “product of a double process of construction and social exclusion” (Jodelet 1998, 47). In relation to the interactive process in cyberspace I call for attention precisely to this second aspect, affirming that alterity in cyberspace possesses an obvious component of exclusion based on stigma and deception.

The current forms of interaction in cyberspace and the so-called social media, like chat rooms, discussion groups, Facebook, WhatsApp, Instagram, and even the exchange of electronic mail, are possible because they are oriented by an alterity perception. The virtual communities are possible while there is a perception of the self and of the other – a perception of identity and plurality. However, such perception is not oriented towards the integration of plurality in the interactive process. On the contrary, what is behind the construction of virtual communities

in cyberspace is precisely the attempt to exclude difference in the sense that “outsiders” should not violate the community. The communities in cyberspace represent a moment reserved for conviviality with the similar and not with the distinct.

Originally, “stigma” designated among the Greeks physical signs used to show the moral status (as slave, criminal, traitor, etc.) of those marked by the sign (Goffman 1986). Nowadays, although stigma is no longer shown by physical marks, it still represents the misfortune experienced by those who for whatever reason are not considered “normal” in a certain community, namely those that are negatively different from specific expectations (Goffman 1986). The content of stigma, invariably connected to discrimination, is different from community to community (Abels 2001, 156), and every community determines which characteristics will not be considered socially normal.

Another common reaction to transgression is deception. Deception takes place when, in the interactive process, we perceive a contradiction between what an actor appears to be and his/her subsequent acts. Deception occurs because we perceive our interlocutor not just as an individual, but as a pattern of social categories. Donath (2000, 49), quoting Simmel, affirms that our first impressions, based on a brief observation, determine the basic social categories through which we will “catalogue” the person we meet for the first time and by means of which we orient our later and more detailed interpretation of his/her motivation and behaviour. When we perceive some contradiction in the identity assumed by our interlocutor, before we doubt his/her identity, it is usual that we reinterpret his/her acts. Only when this reinterpretation confirms our suspicion do we observe our deception. We should distinguish here deception from mistake. Contrary to deception, a mistake occurs when we identify an error on our part in our initial procedure of cataloguing our interlocutor among the pattern of social categories. The recomposition of the relationship appears to be easier after a mistake than after a deception.

In Internet applications that allow a more interactive relationship, a very particular way in which the interactive process occurs can be observed. As stated earlier, this interaction process is oriented much more to the exclusion of difference than to creating conditions for a conviviality with diversity, especially through a very clear classification of groups or the creation of communities. Such categories entail a reflection process which can be characterized as a ready-made alterity, which means that the perception of the other is defined *ex ante*, in such a way that a contact with undesirable differences can be easily avoided. It is true that individual identity representation in cyberspace can easily be falsified, with some authors stating that this would open the opportunity for the emergence of multiple identities (Jones 1997, 25). As in face-to-face relationships, or maybe in an even more intensive way, the identification of the identity of the interlocutor becomes almost an obsession. Almost any dialogue in the so-called social media

starts with an attempt to verify the identity of the interlocutor. Sometimes the conversation does not go further than this phase, especially when one perceives, if not the true identity, at least the attempt of an identity fraud. What follows this discovery is deception or stigma. The most common forms of deception concern gender and age (Donath 2000, 49). It may happen that those that provoke deception might become the target for an active attempt of stigmatization when he/she is denounced to the others. The stigmatized will find less receptivity or sympathy among the “normal” to overcome the discrimination since the interactive process in cyberspace is markedly oriented to a logic of efficiency: there is not enough time for difference.

In a face-to-face interaction process, there seems to exist considerable space for the recuperation of stigmatized identities. In his analysis of interaction rituals, Goffman (1967) analyses the work of face construction. “Face” is defined as the values that someone assumes for her/himself during an interactive encounter. In this sense, face indicates an image of the self-sketched in terms of socially accepted attributes (Goffman 1967, 5). A person’s own face and the faces of others are constructions of the same order in the sense that it is group rules that determine the sense of acceptance of the involved faces. In general, people who possess social abilities know – even if not in a systematic way – the process of face construction. We experience, however, situations in which our face is threatened or spoiled. In these situations, we can be targets of stigmatization by the members of the community to which we belong without presenting physical characteristics that make such a situation clear. Not all, however, are in the condition to recompose their face, not only because of a possibly unfavourable psychological situation, but also because of the social conditions we live in. According to Goffman, the members of the community assume an important role in rebuilding face for those living with a spoiled face. This process is carried on by individuals spontaneously or it can be a conscious and organized activity. Goffman suggests cooperation in face rebuilding activity. This process does not seem to find an agreeable environment in cyberspace.

Although the interactive forms mediated by the Internet seem to facilitate attempts of identity fraud, the success of such attempts is only partial, since it is not possible to conceal the fundamental elements that characterize the identity. This is because interaction in cyberspace is dependent on a very revealing ability: written language. It differs from face-to-face interaction – which depends on visible physical aspects and symbolic cues for the fluency of the interactive process – in the sense that interaction in cyberspace provokes a reduction of the flow of symbolic cues, depending fundamentally on written expression. Being one of the most advanced technologies used by humanity (Lévy 1999, 87), written expression reveals much more than it hides of the essential characteristics of the identity. With certain resources, it is possible to disguise some visible aspects of

our identity, for example through clothing and make-up. When the interactive process does not depend so much on the visible aspects of identity characteristics, this process tends to depend more on disposable resources, such as written ones. On the one hand, communication based mostly on writing allows a more reflexive communicative action, since this process is not necessarily synchronous. That means that the answers can pass through a process of deeper reflection, allowing those who do not own well-developed rhetorical abilities to equally engage in the interactive process. On the other hand, with the elimination or at least the minimization of the relevance of other identity characteristics, the interactive process depends strongly on an ability for written argumentation. This is of course a limitation in which elements of segregation are quite present. The segregating element does not reside in the intense use of writing, but on the still strong dependence on such an interactive resource, even though there is the possibility of using images and sound in mediated interactions.

Besides the technological components of the mediated interaction process, including language and written expression, as well as the interaction moment itself, there are other missing aspects in the current analysis of interaction that takes place in virtual spaces. Usually past experiences are not explicitly considered in the analysis of mediated interaction. In this sense, the sociology of Alfred Schutz could help us shed light on these aspects. A great contribution of Schutz for the understanding of social action is the investigation of the motivation for it, in which the distinction between “because motives” and “in-order-to motives” (Schütz 2004) plays a central role. While in-order-to motives refer to the actor’s future expectation, because motives concern the past experiences and convictions anchored in the environmental and socio-historical circumstances in which the actor has been involved (Dreher 2011; Barber 2010). This means that “because motives” are related to the biographical experiences of the actor. Biographical experiences are the key component to track the motivations for any action since motivational relevance is made of sediments of previous experiences which were relevant for the person (Schütz 2004). In the next section, I would like to make explicit how Schutz’s sociology could contribute to a better understanding of mediated social interactions.

3 Temporality and biographies as parts of the mediated interaction

Although temporality is not clearly differentiated in current actions, the explicit inclusion of a temporal component in the analysis can provide accuracy for understanding the elements involved in the individual process of decision-mak-

ing. Temporality is an intrinsic part of meaning constitution (Muzzetto 2006), and in this sense, it cannot be excluded from the analysis of any action and its motivations. By considering temporality, the scientific observer obtains access to different aspects involved in the action, especially past experiences and future expectations. The time aspect is only rarely incorporated as a clear criterion for defining actions and is maintained only implicitly. Not all experiences can be considered meaningful, only those already lived through when regarded in retrospect. To say that experiences are meaningful implies that it is possible for individuals to distinguish and accentuate them, which means to confront them with other experiences. This can only be undertaken if the experience can be delimited through “an attention act”, as Schutz, inspired by Husserl, calls it. So, to assign meaning to an experience is to interpret it *ex post* through recovering it by the work of memory. Remembering therefore constitutes the condition enabling the past experiences to be analytically regarded as a motivation for action.

Putting action in a temporal perspective implies considering time as a continuum in which past, present and future are implicated in the same action. However, to say that time is a continuum in one's action doesn't mean that there is a kind of determinism in present and future actions, i.e. that they are defined by the actions already performed, but that current and future action cannot be understood without taking into consideration previous actions accomplished by those whose actions are considered. In this sense, the analyses of action based on the sociological writings of Alfred Schutz should be assumed as a historical investigation *par excellence*. What is put here in a historical perspective is not just the action itself, but also the meaning attributed to the actor's own action, in both the present and the past. In this sense, understanding action based on Schutz's sociology would be better accomplished with a combination of synchronic and diachronic analysis.

The sociological project postulated by Schutz puts the subjective perspective at the forefront of analytical concerns. Here, it should be noted that subjective meaning construction does not coincide necessarily with the sociological analysis itself; rather, it is made the object of the scientific analysis. Such an analysis incorporates a diachronic perspective, since it considers developments in biographical processes of meaning construction and definition regarding one's own action. There is consideration of biographical experiences as an intrinsic element in the constitution of meaning, as opposed to the concept of identity, for instance.

Unlike the biographical approach as a sociological subarea of investigation, identity studies are much more concerned with the present situation (Fischer-Rosenthal 2005), i.e. the present biographical situation of the actor, without adequately considering the past experiences that may have contributed to the current meaning attribution and action. Another distinction between a biograph-

ical approach based on Schutz and the sociological investigation of identity relates to the focus of the analysis. In identity approaches, attention is drawn to the common discourse of groups, especially regarding their cultural characteristics (Hall 2000). Two other aspects are neglected without receiving adequate consideration: First, identity approaches are usually not sensitive to the distinctions among those who share common elements as members of an ethnicity or members of the same community, or even among those who have common experiences of migration, of unemployment, of violent practice, or who belong to the same social movement, for instance. Second, researchers engaged in the investigation of identity are not very much concerned with the dynamic of the historical and changeable development of the main characteristics attributed to a specific identity; nor are they aware of the distinct relations of individuals or groups of individuals to the alleged identity. Focusing exclusively on the synchronic characterization of a group, research on identity usually leaves unobserved the biographical aspects of the connection of those who recognize themselves as belonging to the same community, culture, movement, etc., and so this connection is taken, at least implicitly, as if it were uniform and non-problematic. The process of belonging could be better approached if one explicitly takes into account the previous experiences of the members of the group considered in the analysis. For that purpose, the sociology of Schutz – using biographical experiences to approach reality and to understand the course of action – represents an important step ahead of the available discussion on cultural identities.

The basic materials for action are the “objectivities and events which are already found” (Schutz and Luckmann 1973, 3), which represents in some way a limitation for any action. This limitation is given, for example, by the pre-existence of a natural language in the culture in which individuals are socialized or even by the actions already taken by the actor and the results of other people’s actions. This conception implies that individuals are not isolated, but are seen in their horizon, which is interpreted by the actors themselves. This context is considered by Schutz as the reality of the world of everyday life, where the actor can become engaged and which can be modified as long as one acts in the world.

In his exposition of relevance systems, Schutz connects them to the problem of biography and of the biographical situation. In his manuscript “The problem of relevance”, Schutz argues that present relevance is strongly determined both by the present geographical position occupied by the individual and his/her biographical situation (Schütz 2004). However, this biographical situation is the sedimentation of the individual’s history, including his/her own direct experiences, those of contemporaries and predecessors, but also his/her past fantasies. The recovering of these experiences in the present is defined by a practical inter-

est. This means that facing an imminent necessity to act in the near future provokes access to the biographically sedimented experiences, even if the actors are not totally aware of this process. Previous experiences, or at least those regarded as related to the practical problems faced by the actor, are recorded as typical experiences. It is this typicality that becomes an important element of the stock of knowledge.

In his article “Choosing among projects of action”, Schutz (1962) comes back to the differentiation of motives, explicitly connecting the “because motives” with the past experiences of the actor. Considering the importance of this topic for the development of research approaches based on biographical experiences to understand social phenomena and social actions, it is worthwhile to quote the passage:

The genuine because motive, however, as we found, is an objective category, accessible to the observer who has to reconstruct from the accomplished act, namely from the state of affairs brought about in the outer world by the actor’s action, the attitude of the actor to his action. Only insofar as the actor turns to his past and, thus, becomes an observer of his own acts, can he succeed in grasping the genuine because motives of his own acts. (Schutz 1962, 71)

In this passage, Schutz indicates two movements necessary for the understanding of any action, one that should be made by the observer, a sociologist for instance, and another that is under the responsibility of the actor himself/herself. The observer should reconstruct the “accomplished act” performed by the actor and the actor may, turning to his/her past, expose his/her action in such a way that it is possible for the external observer (e. g., a sociologist) to reconstruct his/her motives. In doing so, the actor reports and at the same time becomes an observer of his/her own acts. As I will argue later, it is exactly this exposition of the “because motives” that inspired the formulation of research strategies to systematically get access to these motivations from both actors, the external observer and the actor. In this sense, Schutz seems to indicate that the access to because motives necessarily implies some kind of collaboration between an observer and an actor who recovers his/her own past.

In “The structures of the Life-World”, Schutz and Luckmann make an even more explicit remark on how biography acts as a key element for action in the life-world in the sense that what has been done by the actor himself and by others works as a limit to the free possibility of action (Schutz and Luckmann 1973, 3). This limitation does not mean that what was already done will or should be replicated again and again; previous actions work as elements for the consolidation of typifications of situations already gone by. In this sense, what is already experienced will be recovered as a reference when individuals are facing future situations. Hence, the horizon for an action in new situations will first refer

to the actions already taken, even if this reference involves a refusal to act in a similar way as in previous situations. The biographical sedimentation of experiences ensures that action will not be executed in a void, but rather that the stock of experiences provides the actor with possible solutions to practical problems (Schutz/Luckmann 1973).

A sociological consequence of this understanding is not that future action could be predicted, but that present actions could be better understood if the observer could access the past experiences of the actor. However, since past action as such can never be apprehended again (Rosenthal 1995; 2005), the current interpretation of past experiences by the actor is what should be recovered. One should aim to understand both present and past actions considering that these past actions are always regarded through the lens of the present biographical situation, and that the actor not only lives in the present, but also works with expectations for the future. In this sense, a special input for the analysis of social phenomena based in Schutzian sociology should be adopted, trying to make explicit the biographical experiences of the actors closely related to the problem under investigation.

Explaining the biographical character of the stock of knowledge in the life-world, Schutz and Luckmann (1973) assert that our experiences are socialized, but that they are not all socialized in the same way, which confers a “particular” character on each of our stocks of knowledge. In this way, accessing biographies as a sociological enterprise could eventually become a kind of “microsociology”. However, at least regarding the sociology of Schutz, the widespread distinction between micro and macrosociology does not make any sense since the biographical experiences are limitless and not restricted to certain dimensions of the social life. This means that even the most trivial and ordinary interactions in our everyday life sedimented in our experience are embedded with notions of norms, rules, classes and perceptions, and with all aspects of the social structure, in addition to feelings such as hate, love, etc.

In his short essay “The Stranger – An Essay on Social Psychology”, Schutz (1964a) explains the relationships between the locals and a stranger. Implicitly, Schutz seems to refer here to his own biographical experience as a stranger in a foreign country. The distinction between both, the stranger and the locals, resides exactly in the lack of common biographical experiences, especially in the first years of life, as this would be connected to a genetic constitution of a common relevance system. Even if the stranger spends a long period of life in his/her new country, his/her biographical experiences will involve some reservation, withstanding a deeper integration. However, the relationship to a stranger is multifaceted regarding the relevance system in the sense that those experiences which are primarily seen as related to the individual biographical experiences

are not viewed as an obstacle for the acceptance of the stranger, as opposed to a situation where the stranger is simply assumed to share the relevance system of an outside community.

This analysis explains in part, for instance, a widespread attitude towards individuals from foreign countries. When these individuals are assumed to have their own unique experiences, the acceptance and integration process is surrounded with fewer obstacles, as opposed to when the foreigners are assumed to be part of a stereotyped collectivity, sharing a relevance system with others in the group. The problem identified by Schutz is that the foreigner is regarded in his/her double character as an individual with particular biographical experiences, and at the same time as belonging to another community that shares a different and perhaps unknown relevance system. The relationship of nationals to a stranger is an ambivalent one; sometimes the stranger is seen in their individual singularity and sometimes as an inseparable member of their original community, making life uncertain and insecure for those that moved from one society to another.

In another essay, “The Homecomer”, also strongly based on his own biographical experience, Schutz (1964b) explores the context in which common biographical experiences are disrupted. As is known, Schutz spent some years as a soldier during World War I (Barber 2004). The experience of the veteran who returns home after a period in war is used to analyse how the systems of relevance change among members of the same community due to the difference in their biographical experiences during a certain period of time.

Schutz argues that those who stayed in the same community during the war show a deep conformity among them as far as the relevance system is concerned, even considering that they present a diversity of singular relevance systems. For instance, they share a routinized way of dealing with novelty, of overcoming problems in the family or of coping with death. The discrepancy between the homecomer and those who stayed home is found in everyday life, showing that the biographical experiences accumulated in a certain period provoke a disruption in how to act regarding even the most ordinary events.

All of these arguments are intended to show the pragmatic implications of different biographical experiences in organizing future actions and in consolidating different perceptions of the world. The essays mentioned above show the importance of biographical experiences for understanding the motivations for action, thus exploring the genetic aspects of it. However, they do not present accurate procedures to conduct empirical research. The biographical narrative approach may be considered an appropriate instrument to systematically incorporate biographical data into the sociological analysis. As will be seen, these data must be produced in an interview.

Although Schutz did not delineate instruments or guides for empirical research based on his phenomenologically oriented sociology (Hitzler/Eberle 2000), his work inspired the development of some relevant approaches, for instance, ethnomethodology (Garfinkel 2002), conversation analysis (Sacks 1989), and later the biographical narrative approach (Schütze 1983; Rosenthal 1995). All of these approaches have in common the attempt to understand society or social problems through a common-sense perspective, considering the interpretative work of those engaged in everyday life activities, avoiding the scientific observer's perspective. However, there are some distinctions among these approaches, especially regarding the process of data collection and above all with respect to the importance of previous experiences of interacting with individuals for the analysis.

Although ethnomethodology, conversation analysis and dramaturgical analysis concentrate on everyday, face-to-face interactional situations, these approaches caught the attention of some scholars interested in mediated interaction (for instance, Giles 2006; Rettie 2009). Their analytical focus is not directed explicitly at reconstructing the previous experiences that may contribute to the way a concrete interaction takes place, although it is recognized that past experiences play an important role in the interactions.

Even though it draws attention to the indexicality of the everyday interactions – i. e., the idea that the meanings of spoken expressions depend on context, as well as on the biography of the speakers, the previous relations between those individuals who interact and their previous conversations (Coulon 1995) – these approaches mentioned (ethnomethodology, conversation analysis and dramaturgical analysis) do not show explicitly how the biography of the speakers, as a key component of such indexicality, could be systematically incorporated in the analysis. To put in another way, it seems that the biographical component of indexicality through the stock of knowledge (Heap 1980), although considered, is not sufficiently clear, at least not in the data production process, as well as in the data analysis, since the common and reciprocal knowledge of previous biographical experiences is taken for granted. On the one hand, ethnomethodology, conversation analysis and the dramaturgical approach provide important inputs for the comprehension of current interactional situations. On the other hand, these approaches seem to fail in the incorporation of biographical experiences of those whose perspectives are made the object of analysis. A challenge for the study of mediated interaction is to combine the widespread synchronic analysis with a diachronic approach. The aspects of the sociology of Alfred Schutz explored in this chapter, combined with the already consolidated reconstructive biographical analysis (for instance, Rosenthal 1995), seems to offer very important inputs for an accurate analysis of mediated interaction, avoiding a situation where soci-

ological analysis is held hostage by the technological straights of new media, staying focused on synchronic interaction.

4 Conclusion

Everywhere more and more people are becoming acquainted with mediated interaction in cyberspace. Therefore, a more accurate understanding of the particularities of mediated forms of interaction would be more than justified. Even though new elements are being introduced into the social interaction process by mediated interaction, face-to-face interplay is still the analytical reference for better understanding the possible mutations in the forms of sociability. I argued that the mediated interaction process is deeply marked by an alterity, and that this perception of the other is not exclusively constructed considering the interactional contexts, but on the contrary, it overflows this moment and incorporates in it the biographical experiences of those involved in the mediated interaction. However, these previous experiences to be considered are not restricted to the cyberspace. In this sense, the analytical project of better understanding the emergence of the relevance system of those engaged in mediated interaction should incorporate a diachronic perspective, focusing also on the biographical experiences of the interactional counterparts.

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Lady Justice Turns a Blind Eye: (Ir-)Relevance, Legal Thought and Social Order

Abstract: The word “relevance” seems to have originated in legal practice. Against this background, an attempt is made to clarify A. Schutz’s theory of relevance by referring it to notions found in legal thinking. The main point is to contribute to an understanding of the role of relevance and irrelevance at the level of social order which is often modelled on a legal system. Schutz’s concept of relevance reflects a tension between general patterns and the dynamic of their application which has been discussed, in reference to laws, as the problem of “equity” (Aristotle). Schutz’s reference to types taken for granted “until further notice” expresses this tension in the form of a legal “presumption” (G. W. Leibniz). Through the concept of a legal “state of affairs”, the analysis is referred to the role of “critique” (L. Boltanski and L. Thévenot). Against the suspicion that a relevance theory may describe something like an “order of the visible” (J. Rancière) which would suppress critics by making them “invisible”, it is argued that an analysis of relevance based on Schutz may help account both for the stability of social order and for the fact that social order can, in principle, be changed through criticism.

1 Introduction

The word “relevance” is older than it looks. There are indications that it originated in legal language. In the following essay, I will take this cue to consider several notions in thinking about the law which may have inspired one of the earliest theories of relevance, presented by Alfred Schutz. My first objective is to help clarify Schutz’s analysis of relevance by referring it to the legal context. I will suggest that looking at the law and its reflection by philosophers, sociologists and jurists can help us shed some light on what relevance and irrelevance are and how they work. My second and main objective lies in the reverse direction. The point will be to apply the analysis of relevance and irrelevance

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to the level of social and political order which is often described using laws or a legal system as a model. If the concept of relevance generalizes aspects found in legal thought to all dimensions even of individual experience and action, does it describe an “order of the visible” (Jacques Rancière) which, by making its critics *invisible*, prevents changes more effectively than any censorship could? Does an analysis of relevance which, like Schutz’s, stresses “typical” relevances, over-emphasize the maintenance or stability of a given order – or can it also capture the possibility of a change or emancipation through critique?

2 The word “relevance” and the metaphor of weighing

“Relevance” is a common word today. But before it started entering general use from the 19th century onwards, it seems to have been very much a specialist’s term. Its origins point towards jurisprudence and the practice of law in early modern Europe. English “relevant” and “relevancy” are attested as terms in Scots law in the 1500s (OED 2018). German *relevant* is first attested in juridical and administrative texts in the 17th century, but even today’s text corpora show the word to occur most frequently together with legal expressions such as “in penal law” (*strafrechtlich*) or “facts of the case” (*Tatbestand*) (DWDS 2018). In French, *relevant* and *irrelevant* have disappeared in favor of *pertinent* and *non pertinent* – but they curiously live on as archaisms in Belgian law (Juridictionnaire 2015). To be sure, a great number of words we use today originated as legal terms. Nevertheless, I will suggest, there are deeper relations between the notion of relevance and thinking about the law.

As several dictionaries note, one reason why the “relevant” family of words arose in legal texts may be the metaphor of weighing. This metaphor has been applied to legal proceedings at least since the Ancient Egyptians imagined the underworld as a place where a divine court, complete with a presiding judge and a scribe taking minutes, would weigh the hearts of the dead on a pair of scales to decide their fate. A pair of scales was also carried by *Aequitas*, the Roman personification of equality or fairness, and the attribute was then transferred to medieval and early modern depictions of Lady Justice (Roman *Iustitia*). But what does “relevance” have to do with weighing?

Latin *relevans* is a cognate of *levis*, that is, “light” (of weight). The verb *relevare* can mean either “to lighten” or “to raise up”. Since both of these meanings come together in the idea of “lifting a burden”, *relevare* can also mean “to help”.

Hence, *relevantia*, the property of being *relevans*, can be understood as “helpfulness”. The metaphor of weighing with a pair of scales embodies all of these senses of the word: Putting more weight into one scale pushes the other scale up (*relevare*); taking weight out of a scale lifts it by making it lighter (*relevare*). In this way, when we want to determine the weight of something, item we add or take away can be helpful (*relevans*) in the sense of “tipping the balance”.

At the same time, the metaphor conveys aspects of an ideal of justice often professed with respect to the law. “Weight” as an intrinsic property of an object expresses the idea that a judgment is based on the qualities of the case itself rather than the judge’s perspective and personal interest. Nor does the weight of an object depend on who puts it on the balance. An ideal judge does not even “look” at the person who brings a case to her or submits the evidence, and the “weight” itself is invisible anyway. Hence, Lady Justice has been depicted as blind or blindfolded in modern iconography. The balance itself, with its two scales, expresses the ideal of carefully comparing the respective merits of different sides rather than just opposing them to each other, that is, of analyzing the different sides and their relative importance in the concrete context of “the case”. Furthermore, the balance is a technical instrument which responds to the “laws” of nature (again, a legal metaphor). A pair of scales measures an “objective” property if it is constructed, calibrated and used according to standard procedures.

While the metaphor of weighing is closely connected to ideals of laws and legal judgments, it shapes our language and thought far beyond this application. In the wake of Lakoff and Johnson (Lakoff/Johnson 1980), “IMPORTANCE IS WEIGHT” has often been proposed as a basic conceptual metaphor which is not only reflected in the etymology of words such as “ponder”, “deliberate” or German *wichtig* (“important”), but which is also quite alive in our talk about “weighing” our options, arguments “carrying weight” etc. More specifically, Marcelo Dascal has argued that the metaphor of the balance or scales is one of our “root metaphors”, pointing out the multi-faceted use of this image in Gottfried Wilhelm Leibniz (Dascal 2005).

Leibniz, a jurist by training, was a philosopher who liked drawing comparisons or examples from legal practice to explain abstract concepts. In particular, he often uses the ancient weighing metaphor:

For the common saying is true enough – *rationes non esse numerandas sed ponderandas*, reasons are not to be counted but weighed. But no one has as yet pointed out the scales to do that, though no one has come closer to doing so and offered more help than the jurists. (Leibniz 2006 [1697], 381)

Leibniz does not use the word “relevance” in this connection. But it seems more than a coincidence that one of the earliest philosophical theories of *relevance* was

developed by Alfred Schutz, who was also a trained jurist and who repeatedly referred to Leibniz (Sakai/Nagatsuna 2009). I will first outline Schutz's notion of relevance and then relate it to thinking about the law.

3 The concept of relevance in Alfred Schutz

Schutz first defines “the *basic problem* of relevance” as that of “selection from the totality of the world” in notes he wrote in 1920s Vienna (Schutz 1996 [1929], 4 / Schütz 2004 [1925–1929], 51; original emphasis). In Schutz's lifelong efforts to build a philosophical foundation for sociology, “relevance” remains a fundamental concept.

Schutz's concept of “relevance” applies to a broad range of phenomena. We can cite a much later manuscript (which Schutz privately called his “relevance paper”) to indicate this range. The kind of relevance he terms “motivational” concerns not only practical goals and plans of action, but the selection of all those elements which “are *relevant* for the individual to define his situation thinkingly, actingly, emotionally, to find his way in it, and to come to terms with it” (Schutz 1966 [1957], 123). This description of “motivational” relevance directly relates to the two other kinds of relevance: “Interpretational” relevance concerns the selective search for specific knowledge, categories or other resources which might help the individual define his or her situation here and now to an extent deemed sufficient for this purpose. “Thematic” relevance selectively brings into relief elements of the situation which are unknown, atypical or problematic for the individual and which therefore require specific attention in order to “come to terms” with them.

I note four points about Schutz's theory of relevance which will be important in this essay:

- (a) Schutzian “relevance” structures *a wide range* and different levels of experience. Relevance is fundamental not only to our thinking and acting, to our purposes and means, but also to our sensual perception of things and people, to our emotions (Strassheim 2012), to the way we move and feel our bodies and arguably even to the very distinction between “body” and “mind” (Strassheim 2015, ch. 4.3); relevance shapes our science, our imagination and even our dreams.
- (b) Relevance *connects* these fields and levels of experience. Just as motivational, interpretational and thematic relevances prompt each other, the concrete selections happening in different areas of experience interweave, especially through processes of action (which, for Schutz, includes purposeful thinking

- as well as bodily movement), and are related within a dynamic whole that Schutz (2003 [1936/1937]) terms “personality”.
- (c) The selectivity of relevance follows “*typical*” patterns, such as personal habits, standard expectations and methods, schemes of interpretation, or stereotypes of people. Connections between different fields and levels of experience are also “typified”. For instance, what Schutz (1964 [1944]) calls “recipes” bundle together motivational, interpretational and thematic relevances into comprehensive routines made up of typical goals, problems and solutions we often have in our everyday lives. Such “types”, Schutz argues, are “taken for granted” until further notice; they are part of our “natural conception of the world” (a term which Schutz takes from Max Scheler).
- (d) All three aspects of relevance also refer to the *social* level. Communication and collective action presupposes that individuals share at least part of their relevances. This is ensured in particular by relevances which are “socially approved” by groups or cultures, crystallized in the structures of native languages and imbued through education and shared experience. The greater part of the individual relevances which shape, connect and typify our experience are “socially derived” (Schutz 1964 [1951]; 1962 [1953]). Hence, our conception of the world is only “relatively natural”, that is, relative to groups and cultures.

When Schutz first introduces the “problem of relevance” in his notes from the 1920s, he stresses that this problem is implicitly recognized in all of philosophy, but he adds examples from other disciplines including jurisprudence: “Jurist: legally relevant state of affairs and facts of the case as an interpretation of reality” (Schutz 1996 [1929], 4, my translation).¹ In other words: A legal professional, following lines prescribed in laws and legal procedures, selectively carves out certain pieces and aspects of reality in order to build a case.

Against the historical background of the word “relevance” (and Schutz’s own background in legal studies), we might suspect that the example of the “legally relevant state of affairs” is more than just illustrative. After all, if we summarized the four aspects of relevance mentioned above as forming a (a) comprehensive and (b) systematic complex of (c) standardized procedures and categories which (d) help coordinate individual behavior at a social level, we would sound a lot as

¹ Cf. Schütz 2004 [1925–1929], 51–52: „*Grundproblem* der R[elevanz]: Auswahl aus der Totalität der Welt [...] Jurist: rechtserheblicher Sachverhalt u[nd] Tatbestand als Interpretation der Wirklichkeit“. As German *erheblich* literally means “lifting up”, the word may evoke the same imagery as *relevant*.

if we were talking about the legal regimen of a country. One obvious difference would be that structures of “relevance” are far more comprehensive than legal systems. Relevance shapes even cognitive and aesthetic dimensions of individual experience which are, fortunately, by and large outside the scope of the law. Could we read Schutz’s relevance theory as taking an idea inspired by legal thinking and using it beyond its original application?

4 “Juridism” and the problem of change

The migration of ideas from jurisprudence to philosophy is not a rare phenomenon. Immanuel Kant, for instance, spoke of Reason presiding over a “court of law” and used a host of comparisons from jurisdiction and legislation; he even structured the argument in his “Critique of Pure Reason” after a type of legal document used in the courts of the Holy Roman Empire in his time (Møller 2013). In fact, the migration of ideas from jurisprudence to philosophy is so common that criticizing it has become a tradition of its own. Martin Heidegger condemned “Roman” legalistic thinking for confining us within rigid, technical methods which reduce truth to mere “correctness” and blind us to reality. Philosophers such as Michel Foucault, Jacques Derrida or Gilles Deleuze saw “juridical” mechanisms at work in modern societies as mechanisms which exclude all aspects of life beyond the schematic constructions of what is “normal” (Hörl 2006).

In this tradition, Jacques Rancière (1998 [1995]) expands upon Foucault’s idea of an internalized social “regime”. He argues that structures of social and political inequality include cognitive and aesthetic dimensions: they prescribe standard, supposedly “normal” ways of categorizing and perceiving the world and moving around in it. These standards are so deeply ingrained in the bodies and minds of the individual members of societies, Rancière claims, that they form an “order of the visible” (Rancière 1998 [1995], 29). As the individuals take this order as the natural way of things, they become “blind” to any aspects and events in their society which deviate from this way. Rancière consistently compares this order to a legal system. At the same time, the “order of the visible” is far more extensive than any legal system; and its primary mechanism is the internalized complicity of its subjects rather than external sanctions imposed upon them. This makes an “order of the visible” far more resistant to social or political change than a system based on laws and sanctions only. Even criticizing such an order becomes difficult, for if the critic’s actions deviate from the “order of the visible”, they remain *unseen*.

If we take at face value Alfred Schutz’s theory as I presented it in the previous section, we might conclude that Schutz describes something similar to

Rancière’s “order of the visible”. Schutzian relevance (a) structures individual experience to a similarly wide extent; (b) its systematic character may deserve the name “order”; and (d) it coordinates, on a social level, all individuals who internalize it.² But a big question concerns point (c): Do relevances which are based in typical patterns of experience make us permanently “blind” to anything which deviates from the typical expectations that we take to be “natural”?

The “order of the visible” is a visual metaphor which stands for all aspects excluded by a particular social or political order; it is an “order of the visible and the sayable” (Rancière 1998 [1995], 29). An example of Rancière’s is the collective plight of the impoverished and disenfranchised workers which was ignored by the society of 1830s France. When revolutionary Auguste Blanqui is tried in 1832 and told by the judge to state his profession for the record, Blanqui says “Proletarian”, which leaves the official unable to identify Blanqui according to the fixed categories that determine an individual’s place and function in society. “That is not a profession”, the judge replies (cf. Rancière 1998 [1995], 37). The judge is not literally “blind” to what Blanqui wants to say, but, we might say, he ignores it because it is *irrelevant* to the legal proceeding which is going on.

Schutz’s concept of relevance too has been used to describe metaphorical “blindness” on a social scale. We often fail to notice, on a collective level, the standpoint and even the existence of people who do not meet certain standards or who live on the margins of society even when they are “in plain sight” (Zerubavel 2015). Schutz’s idea of relevances which are socially “approved” and stabilized in the form of routines which direct our attention can help explain how such blindness is produced and maintained at social levels (Campo 2015). Moreover, relevance can produce even literal blindness in the psychology of visual perception. We can fail to see – literally – phenomena not relevant to what we are doing, such as, famously, a woman in a gorilla suit walking through a video of people playing with a basketball (Simons/Chabris 1999).

Nevertheless, this cannot be the whole truth about relevance. A perfect “order of the visible and the sayable”, if it existed, would render impossible any change through criticism. This is in effect what Rancière says: if critical voices are heard at all, they are either misinterpreted as supportive of the dominant order, or else they are heard as a meaningless “noise” (Rancière 1998 [1995], 23–24, 29, 52–53). But if this were correct as a description of social

² Schutz’s theory of relevance is closely related to the analysis of (in-)equality (Nasu 2003) and power distributions (Dreher/López 2015).

order,³ social or political change would be impossible unless through the violent destruction of the dominant order. This would contradict the history of changes through criticism cited by Rancière himself. His own analysis that those who are excluded by the social order set up a theatrical “stage” on which they finally become “visible” to the others (Rancière 1998 [1995], 23–27, 49–55) is inconsistent with the premise of a perfect “order of the visible”: Any success of this “stage” already presupposes that others are in principle able to “see” the excluded actors and their deviant performance even though all of this runs counter to the seemingly “natural” order of things.

A perfect “order of the visible” would also be inconsistent with a truth about government recognized by Aristotle. Anyone who wants to preserve a particular social order cannot, in their own interest, ignore the critical voices of those excluded by this order but must at least appear to introduce changes in order to appease the critics – a strategy which is inevitable but risky as, according to Aristotle, it tends to end up leading to actual changes.⁴

In order to reflect this role of criticism for the possibility of social and political change, relevance must be examined more closely with a view to the dynamic of “types” mentioned under (c) above. Relevance often makes us “blind”, but not always and everywhere. Apparently, the selectivity of relevance contains an element of change too.

5 “Equity” and its two sides

Does this mean that a relevance theory is fundamentally different from juridical thinking after all? The answer depends on what we mean by “juridical”. So far, I have rather simplistically identified relevances with laws. Even more simplistically, I have identified laws with static rules which apply in a mechanical manner and exclude anything that does not fit their fixed frame. This view is often implicit in the philosophical literature, especially in modern critiques of “juridism”. But is it accurate? I will now consider some reflections on actual legal practice.

Schutz’s example, quoted above (sec. 3), of a “legally relevant state of affairs” illustrates relevance as selectivity: Only a small part of the world is cut out in construing “the state of affairs”. This selection is performed under the guidance

³ To be fair, Rancière’s intention is not so much to provide a theoretical model of social order, but to challenge established theoretical discourse through what has been called “polemical intervention”. He might therefore not necessarily disagree with the following argument.

⁴ Aristotle, *Politics*, Book 5.

of laws: the portion cut out is “legally relevant”. Yet this does not mean that the relevances in question are simply identical with the laws or directly follow from them. Establishing a legally relevant state of affairs is the job of *people* who consult, interpret and apply laws. The selection of what is relevant in the case at hand is performed by them, not by “the law”. Accordingly, Schutz introduces his example by referring to a “jurist”. In this sense, relevance has to do with making a decision in a concrete case. First, the legal professional draws on certain laws rather than others, deciding which laws are relevant to this case. Second, she interprets these laws and applies them to the case in one way rather than another. “Relevance” refers to such selections made by people in concrete cases.

This is more evident in common law legal systems (e.g. in the United States) than in the civil law system in which Schutz was trained (in Austria). In common law, “relevance” has to do with finding similarities between the present case and the ways precedent cases were decided. When looking at a civil law system, relevance is more easily confused with the written law which informs the decisions made in a given case. But this confusion should be avoided. In a legal context, whether in a common or civil law system, relevance in the general sense of “selectivity” has to do first of all with concrete selections, with how a given case is construed and judged by people at a given time. This selectivity of relevance is logically distinct from the selectivity of those “relevances” which are inscribed in the form of laws and which, ideally, remain the same across all concrete cases in which they apply and for whoever applies them.

The difference between the law and its application is of course recognized in the practice and theory of law, where it is one of the most fundamental distinctions. A central question is how the law and its application are related to each other.

This problem has been discussed since antiquity under the heading of “equity”. Plato and Aristotle were among the first to describe a tension within any legal system. On the one hand, laws and legal procedures are needed, first, because a judge is expected to reach a decision within a limited time and despite limited oversight and, second, because laws can provide a safeguard against arbitrary, emotional, biased or corrupt judgment.⁵ On the other hand, nobody who sets up a law can foresee the potentially infinite variety of situations to which it will be applied later.⁶ Therefore, in a concrete case, it may become necessary to supplement or specify a law, or to make exceptions from it. As a law is “always a general statement”, it cannot logically cover all possible cases, Aristotle argues. This makes it necessary

5 Aristotle, *Rhetoric* 1354a–b; Plato, *Statesman*, 294c–295b, 300a–b.

6 Aristotle, *Rhetoric* 1374a, *Nicomachean Ethics*, 1137b; Plato, *Statesman*, 294a–c.

to treat laws as *flexible*, sometimes even to deviate from the letter of the law, even to “rectify the law” by trying to reconstruct what the legislator would have laid down if faced with the present, unforeseen situation.⁷ Aristotle therefore introduces a distinction between “legal justice” and another, superior form of justice which may override merely “legal” justice and which he terms “equity” (*epieikeia* in Greek).

Aristotle’s concept of “equity”, later mostly in its Latin form *aequitas* (or German *Billigkeit*), made a career first in rhetoric and then in Roman law, as it pinned down an “inner dynamics”, a “tension” (Stroux 1949 [1926], 12) between two poles inherent in the practice of law. Modernity even saw concepts of equity enshrined, somewhat paradoxically, in written laws. Equity expresses the thought that a law, as a formal rule, cannot determine its own application but needs people who apply it with insight to the situation here and now. Furthermore, as simply following the letter of the law in a mechanical fashion can sometimes turn the intent behind that law on its head, equity expresses the ideal of a “justice” which is higher than the law. At the same time, the notion poses the constant danger of corrupting and suspending the law in the name of some supposedly higher “justice”. Nowhere did this danger become more evident than in the courts of Nazi Germany, which, expressly citing equity clauses, perverted existing law in order to expropriate Jewish citizens under their jurisdiction (Rüthers 1968).

Aequitas, as noted before, was personified by the Romans as a woman handling a pair of scales. Our Lady Justice has inherited this feature: unlike Michelangelo’s Moses, she is not holding a table of laws, which makes sense given the tension between equity and the letter of the law. Relevance has to do with “weighing” the facts of the case, and although this weighing is guided and checked by the law, it must do justice to the situation at hand – even where this should require supplementing and suspending the law. A “legally relevant state of affairs” is selectively cut out from reality, but not in a stiff, cookie-cutter way, but as a subtle “balance” between the rigidity of the law and the flexibility of its application.

6 “Presumptions” and the dynamic of types

We find a similar combination of rigidity and flexibility in Schutz’s analysis of relevance. Our experience is structured by “types” which make certain aspects of the world *typically* relevant (sec. 3). Types are often “taken for granted”, but only “until further notice”, as Schutz usually adds. The latter phrase is more than a caveat; it describes the dynamic of what is *merely* typical. Faced with a

⁷ Aristotle, *Nicomachean Ethics*, 1137a–b.

phenomenon which does not fit our typical expectations (a three-legged crow, a drunk bus driver, a black spot on our skin that was not there before, a kind word from our mean uncle), we will not necessarily be “blind” to the atypical feature or declare it irrelevant. On the contrary, this feature may become relevant in its own right, and we will then try to make sense of it. Sometimes this will allow us to keep all our types unchanged; sometimes it will require modifying or giving up our typical expectations. If types are like laws, they are not like laws of logic or laws of nature which cannot possibly allow for exceptions. Rather, they resemble laws in a legal system which gives judges some leeway in their decisions and which is even built to recognize and deal with deviations from the law rather than to ignore them.

Hence, when Schutz writes that types are taken for granted “until further notice”, we should consider the legal background of this expression, which he takes from Edmund Husserl. The certainty with which I expect a crow to have two legs is what Husserl (1973 [1939], 306) calls an “empirical certainty”. Schutz (2011 [1951], 137) rephrases this as “a certainty until counterproof, or until further notice”. The distinctly legal sound of this is often lost. Some English translations have Husserl’s phrase as “on notice” (Husserl 1973 [1939], 306). But “auf Kündigung” (Husserl 1972 [1939], 370/§77) translates more precisely as “until further notice”, where “notice” (“Kündigung”) means the announcement to quit a legal agreement such as a contract.

Another characterization which both Husserl and Schutz use for this kind of certainty is “presumptive”. This too should be interpreted as a legal analogy. Leibniz, in his critique of John Locke’s epistemology, explains that “presumption” is originally a legal concept:

As for “presumption”, which is a jurists’ term, good usage in legal circles distinguishes it from “conjecture”. It is something more than that, and should be accepted provisionally as true until there is a proof to the contrary [...]. In this sense, therefore, to *presume* something is not to accept it *before* it has been proved, which is never permissible, but to accept it *provisionally* but not groundlessly, while waiting for a proof to the contrary. (Leibniz 1996 [1704], IV, 14, §4, original emphasis)

Leibniz’s definition is still valid today where “presumption” (*praesumptio* in Roman law, *Vermutung* in German) is used as a legal term. What it suggests first of all is that Schutz’s characterization of types taken for granted “until further notice” – which he often paraphrases as “until counterproof”⁸ – is inspired by

⁸ I will ignore the implication that it takes a “proof” to counter a type, as well as the role of the presumption, also described by Leibniz, as a legal rule which shifts the burden of proof to its opponent. Both ideas strengthen the point that Schutz ascribes to “taking things for granted”

the legal concept of a presumption. At the same time, Leibniz helps clarify the role of the law in this concept, and, by extension, the role of types as grounds for “presumptive certainty”.

Leibniz writes that a presumption is more than a conjecture in that it is accepted without even considering an alternative. The reason for presuming something is often the existence of a specific *law*. In Leibniz’s example, it is “presumed” in many legal systems that a child’s father is the man who was married to the mother at the time of conception (Leibniz 1996 [1704], II, 28, §3). This presumption constitutes a legal state of affairs (important, for instance, in inheritance law) even when it has never been proven to be true. We can find a parallel in everyday life: I and the people around me “take it for granted” without question that a certain man is my father even though this has never been tested. This too is more than a conjecture: I have never even considered alternative candidates. However, a presumption can be proven wrong and, if this happens, it ceases to constitute either a legal state of affairs or an everyday matter of course.

In law, the possibility of “proof to the contrary” distinguishes a presumption from a “fiction”, as Leibniz points out.⁹ A modern example of a legal fiction is the assumption that a child below a certain age is not fully responsible for their deeds and cannot therefore be prosecuted. However arbitrary a number of years may seem (e.g. 14 years in Japan, 7 in Massachusetts), the legal fiction does not allow a “proof to the contrary”. As a consequence, criminal law remains “blind” to actions performed by a child which would be prosecuted as alleged crimes if done by an adult.

Using this distinction, we can state that the “order of the visible” which Rancière compares to a legal system is implicitly modelled on the legal *fiction* which not only excludes alternatives, but which even makes us “blind” to them. In contrast, Schutzian relevance, insofar as it follows “types” which allow our experience to deviate from the typical course where this becomes necessary, is modelled on the legal *presumption*. Schutz’s notion of taking types “for granted until further notice” generalizes the concept of a presumption from its legal context to the structure of our everyday experience.

This is already what Leibniz does when he refers Locke’s epistemological idea of a “presumption” to the technical term in law. Also, Leibniz does not stop at the individual level. Locke had criticized “common received opinions”: people’s

a primacy which unwittingly produces a problematic bias in his conception of typicality (see Strassheim 2016).

⁹ Cf. Leibniz 1996 [1704], II, 28, §3. The legal “fiction” is sometimes called an “irrefutable” or “unrebuttable presumption” or a “*praesumptio juris et de jure*” (as Leibniz notes). To avoid confusion, I reserve the term “presumption” for the “refutable” kind here.

naïve trust in the opinions of their peers or of authorities, Locke argued, is a major source of error. Leibniz nuances this with the legal analogy of the “presumption”, which emphasizes that what Schutz will later call “socially derived” and “socially approved” knowledge presents a degree of security while remaining fallible: “As for ‘received opinions’: they have in their favour something close to what creates a ‘presumption’, as the jurists call it” (Leibniz 1996 [1704], IV, 20, §17). Similarly, Schutz’s dynamics of types is at play at the social level too. Even “socially derived” and “socially approved” types are valid only until further notice. And while I take it for granted that others around me use the same types as myself and therefore follow the same relevances, I do so only “[u]ntil counterevidence [*sic*]” (Schutz 1962 [1953], 12). If I encounter members of another group or culture, or individuals within my own, who do not share my relevances, I am not permanently blind to this fact. My expectation that others will share my relevances is itself only a typical expectation: it is a “presumption”.¹⁰

7 “Qualification” and critique

This brings us back to the role of criticism in social and political change. Schutz does not write much about this question. But we can consult an approach which, against the background laid out so far, appears comparable to his position without using the word “relevance” as a central term.

Luc Boltanski and Laurent Thévenot build part of their theory of justification and critique on the analogy with a legal process called *qualification* in French. While the English “qualification” is often used in translation, it does not include the legal meaning. In French law, *qualification* refers to the operation (performed, for instance, by a judge) of transforming a situation into a legal state of affairs in accordance with legal rules and categories. The “state of affairs” which results from this operation is also called a *qualification*. In their analysis, Boltanski and Thévenot use the term in a more general sense to indicate various forms of social

¹⁰ Marcelo Dascal points to the parallel between Leibniz’s idea of a “presumption” and the use of that term in Paul Grice’s philosophy of language (Dascal 2005, 14). Whereas Grice’s presumptions, including the presumption that the other person will “be relevant” in their communicative behavior, are based on notions of cooperative rationality (Grice 1989, 26–27), Wilson and Sperber base their Post-Gricean theory on an analysis of relevance and action and argue on this basis that “[e]very act of ostensive communication communicates a presumption of its own optimal relevance” – a “presumption” which, they stress, can fail in many ways (Sperber/Wilson 1986/95, 158–160).

organization (Thévenot 1992).¹¹ As Boltanski points out, *qualifications* produce and maintain a stable and ordered “reality” which is distinct from “the world”: A specific “reality” is merely a selection and can never grasp “the world, in what would be its entirety” (Boltanski 2011, 58). By selecting only certain aspects from the “world” in accordance with fixed “types”, the *qualification* transforms the concrete situation here and now into a “typical situation” (Boltanski 2011, 69–70).

Evidently, this is more than compatible with Schutz’s idea of “relevance” as a “selection from the totality of the world”. Schutz too exemplifies this selectivity by referring to the determination of a legal “state of affairs”, and he too bases it more generally on typical patterns beyond the law – an idea which later developed into that of a “social construction of reality” (Berger/Luckmann 1966).¹² If we assume that Boltanski and Thévenot are talking about what Schutz calls “relevance” without using the word, their approach can help connect the strands of discussion which I have brought up so far and suggest how, in principle, criticism can contribute to change even in a highly regulated society.

Boltanski focuses on “institutions”. As this includes legal institutions such as courts of law or the position of a judge, and insofar as the law itself is an institution, this relates directly to our discussion. Institutions, according to Boltanski, are based on stable forms (he compares them to religious rituals and to the semantic dimension of language¹³) which are repeated over a variety of occasions in different contexts. It is these forms which produce an institutional “reality” as a selection from the flux and richness of the “world” (Boltanski 2011, 57–59). But precisely because they abstract away from the world, institutions as such are “mere fictions” (Boltanski 2011, 85). For an institutional “reality” to exist at all, it needs to be implemented in the “world” and constantly checked against it. Without the friction this brings about, the institution would run idle and therefore cease to exist in effect. This “tension” between two sides is an inherent element of any institution (Boltanski 2011, 83–86).

11 Boltanski and Thévenot presented their framework in their 1991 book *On Justification*. I will focus on Boltanski’s exposition in his *On Critique*.

12 While Boltanski refers briefly to Schutz and his analysis of a “taken-for-granted world” (Boltanski 2011, 51), he is critical of an overemphasis on a harmony of “common sense” and an overly positive evaluation of the role of institutions which he attributes to “sociologies inspired by phenomenology” (Boltanski 2011, 55). It seems to me that this criticism is aimed more at the analysis of institutions presented by Berger and Luckmann (1966, sec. II.1.) than at Schutz.

13 Boltanski 2011, 87–93. Boltanski’s reference to the tension between “semantics” and “pragmatics” again suggests that he is talking about what is elsewhere called “relevance”: the semantics-pragmatics interface is a major field of research for approaches inspired by Sperber’s and Wilson’s relevance theory of communication.

The tension so described is reminiscent of the tension which is discussed under the heading of “equity” (sec. 5 above). In legal practice, the relation between the abstract generality of the law and its application in a concrete situation is of course at the basis of what is called *qualification* in French. Boltanski and Thévenot apply this notion beyond the sphere of its origin. Their point, however, are the implications for an analysis of critique. As the typified institutional “reality” needs to be implemented in the concrete “world”, an institution must undergo constant “tests” (Boltanski 2011, 103–110). From the point of view of those who are interested in upholding an institution, the function of tests is to continuously *confirm* the institutional reality in concrete situations. But the same tests provide an inroad for *critique* from those who are interested in changing or even abolishing the institution whose selective “reality” excludes part of the “world” they live in. “Confirmation” and “critique” are linked by the same operation: the “test”. The institution uses it to “make visible” its coherent order and to “dramatize” the states of affairs represented through that order – but since a test “can always fail”, the institution puts itself at risk with each of these “performances” (Boltanski 2011, 104–105).

This analysis may remind us of Aristotle’s idea that any form of government, when faced with criticism from those it excludes, will try at least to appear to change, thereby exposing itself to pressure for real changes (sec. 4).

The legal context would seem to encourage applying this view of criticism and change to Schutz’s theory as well. Precisely if we compare a system of relevance to a legal system, it follows that relevance cannot imprison us permanently in an “order of the visible”. As with a formal institution, a selective order based on relevance cannot remain “blind” to what it excludes and deaf to its critics. The order must be kept open in principle, if only in the interest of maintaining it, even though this makes it vulnerable at the same time to the possibility of changes effected through critique. In the visual and theatrical metaphors which both Boltanski and Rancière employ, a dominant order needs to “make visible” its selective reality, to “dramatize” the states of affairs it produces (Boltanski). By the same operation, the order turns its eyes to what goes on outside of it. This enables critics of the order to construct the “stages” of which Rancière writes: alternative dramatizations which make visible *within* the “order of the visible” that this order is contingent, that (in Boltanski’s terminology) the “reality” it constructs is not the only one possible within the “world”.

Conversely, a Schutzian theory of the social world as a world of types “taken for granted until further notice” describes an analogue, in our everyday experience, to the dynamic which Boltanski sees at the basis of institutions. The structure of a “presumption” can be seen in institutions too: the “types” at the basis of the institutional “reality” undergo constant “tests”, which “can always fail”, and

this contributes to the “*provisional* and *revisable* character” (Boltanski 2011, 155, original emphasis) of the entire institutional reality.¹⁴ A “provisional” character is found in principle both on the side of everyday experience and on the side of powerful institutions (including legal ones). Through the constant “tests” of an institutional reality, the dynamics on both sides can infect each other. A rigid “order of the visible” which would unify a powerful regime with its subjects in collective blindness, thus rendering criticism invisible, would not stand in the long run. Given the dynamic of “types” on both sides, changes to a social and political order through critique are always possible in principle. A Schutzian theory of relevance adequately reflects this possibility.

8 The blindness of weighing and the ideal of “emancipation”

If and how this possibility of change through critique is *realized* is another question. The comparison with the law has suggested that relevance is driven by an internal tension between an inert side which abstracts away from changing contexts and a more flexible side which is open to new aspects.¹⁵ This double dynamic contains the possibility of stagnation just as it contains the possibility of change. Our relevances may not make us permanently “blind” to what they exclude, but they sometimes do, and sometimes even literally, as I noted (sec. 4).

Moreover, the metaphor of weighing, which may have given rise to the word “relevance” in the legal context, illustrates another kind of “blindness” which can never be fully avoided.

The metaphor of a pair of scales boils the problem of selection down to a simple choice: There are two sides, two options, and one them is going to outweigh the other. The classical example in the legal realm is “guilty” versus “not guilty”. But before this choice presents itself, many other choices have already been made: Who is to be accused, and of what? Which laws apply, and who has jurisdiction? What additional evidence must be sought? Which evidence can be

¹⁴ As far as I can see, neither Boltanski nor Thévenot refer to the legal concept of a “presumption”. However, one of the examples given by Thévenot to illustrate the power of the law to produce “states of affairs” (*qualification*) is precisely the one that – as mentioned in sec. 6 above – Leibniz uses to illustrate the structure of a presumption: “L’enfant conçu pendant le mariage a pour père le mari” (Thévenot 1992, 1296). (“A child conceived during marriage has the husband for a father”.)

¹⁵ For the argument that relevance has two opposing sides, see Strassheim 2015, ch. 6.

admitted to the record, and how is it to be assessed? All of these junctures lead up to the final choice between two options, and each juncture requires decisions of its own. As we have seen, Schutz's "jurist" who constructs a "legally relevant state of affairs" does not mechanically follow laws and procedures. She has some leeway for deciding in the concrete case and interpreting the law. However, she cannot stop at each juncture to consider all possible alternatives, however remote. More options will remain unseen behind the "horizon" (a visual metaphor which Schutz takes from Husserl) of what she has explored so far. Much less can she consider all the possible combinations of all the possible alternatives and the different junctures they would lead to. Limitations of time and oversight (which are one reason why laws exist, see sec. 5 above) prevent her from doing so. As a consequence, her choices will exclude an indefinite number of alternative possibilities, not because the law keeps her from considering them, nor because she has considered and then rejected them, but because she never thought of them. She is not "blind" to these other possibilities or even "turning a blind eye" to them, but they never enter her "field of vision".

Leibniz was aware of this when applying the weighing metaphor to a more general analysis of decision-making processes, and Schutz followed him when using the same metaphor in his theory of action (Schutz 1962 [1951]). Where I act by simply following some routine, an indefinite range of alternatives never enters my consideration. But even when I carefully weigh several "projects of action" and then decide in favor of one, I do not consider *all* possible options. Instead, those final options from which I choose are the slim output of a complex pre-selecting apparatus. Again, an indefinite range of alternatives never enters my consideration.¹⁶

This would seem to hold true not only for choosing how to act, but more generally for any selection of what is relevant. Whether this selection strictly follows a typical course or whether it is more open to atypical possibilities, it always excludes an indefinite number of alternatives which have not even been considered. One reason are the first two features of *relevance* mentioned above (sec. 3), namely (a) the wide reach of relevance in all fields of our experience and (b) its systematic character which connects these fields. The selection of what is relevant to us here and now is made possible by an apparatus of selections in different areas which are interconnected, again by selective relevances, among each other. The "junctures" in our jurist's decision are merely an example of this. Generally, the selection of what is relevant to us rests on a wider network of selections which

¹⁶ I may consciously decide not to consider any further options beyond a certain point. But this means, of course, that I do not actually consider any further options.

excludes an indefinite range of alternative constellations without ever “weighing” them. This kind of “blindness” accompanies any relevance whatsoever.

As a consequence, if relevance concerns processes of “selection from the totality of the world”, as Schutz put it, we cannot grasp the totality of the world itself; the world as a whole is “opaque” to us (Schutz 1966 [1957], 130). This entails the risk that among all the possibilities which I and even my entire culture or society have never considered there are some we would find highly relevant – if we only considered them. In the face of this risk, most of the authors I cited urge caution and call for measures to encourage it at a social and political level:

Leibniz, for instance, recognizes that legal decisions are informed by historical, scientific, aesthetic and cultural assumptions and suggests that judges should therefore rely on special books which codify all branches of knowledge – but he stresses that all of this knowledge is valid only “until the contrary is proven” (*donec probetur contrarium*) by anyone, who shall then receive a “prize” (*praemium*), while the books are to be revised (*detur revisio*) (Leibniz 1961 [ca. 1670], 558).

Schutz suggests that a type of knowledge he terms “well-informed citizen” should play a greater role in public discussions and political decisions. This type of knowledge differs from both “expert” knowledge and “man on the street” knowledge due to an active readiness to transcend all relevances which have been established as valid until now, a readiness to cross the borders of expert fields and methods as well as the borders of shared and unquestioned opinion (Schutz 1964 [1946]).

Rancière sees the basis of a “new emancipation” in “the acknowledged contingency of all identity” (Rancière 1998 [1995], 104). In a similar vein, Boltanski argues that “emancipation” presupposes first of all a political practice which recognizes the “*provisional* and *revisable* character” (Boltanski 2011, 155) of *any* institutional “reality” instead of looking for a new order which would provide seemingly eternal values or natural identities (Boltanski 2011, 150–160).

9 Conclusion

We followed notions in thinking about the law which help clarify and exemplify an analysis of relevance based on Alfred Schutz. Relevance embodies a tension between two sides, both of which shape and motivate our experience and action at the individual and at the social level. In legal thought, this tension has been discussed, since Aristotle, with reference to “equity”, a notion which is torn between the general character of a law and the dynamic of its application to a variety of concrete cases. Schutz expresses this tension in a form which stems from another

legal concept: “presumption”. This concept (as explicated by Leibniz) allowed us to read Schutz’s reference to “types” which are “taken for granted until further notice” as describing a two-sided dynamic of relevance which combines generalizing patterns with an openness to changes required by the situation here and now. In the legal context, both sides come together in the process (Boltanski’s and Thévenot’s *qualification*) which selectively carves out a legal “state of affairs” from the rich fabric of the world.

The main point of this essay was to better understand the role of relevance and irrelevance in social and political order. Schutz’s analysis of relevance, I suggested, can be seen in part as inspired by aspects of legal thinking which are generalized to action and experience beyond a legal context. I considered whether such an analysis might represent a “juridism” which reflects what Rancière calls an “order of the visible”, i.e. a social and political order which is internalized by the individuals living in it and which controls even the aesthetic and cognitive dimensions of their lives. Contrary to this, relevance was found to explain the fact that a social and political order can be changed, in principle, through the criticism of those who are excluded by it. Referring to Boltanski’s analysis, I suggested that relevance, due to its two sides and the tension between them, helps explain both the maintenance of a specific social order and the possibility of changing it through “critique”.

Nevertheless, applying the concept of relevance to the allegory of Lady Justice with her pair of scales and her blindfolded eyes reminded us that when we pass any judgment and, more generally, when we select explicitly or implicitly what is *relevant* to us, we remain “blind” to an indefinite range of alternatives we have never even “weighed”. Against the background of the inherent risks, most of the authors I cited call for a caution which is rooted in recognizing the “provisional and revisable character” of any social order. A theory of relevance based on Schutz could be seen as a common ground for such calls, as it exposes this provisional character both at the social level and at the individual level. It would support a wariness of seemingly “natural” relevances which has been described as a condition for “emancipation”.

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