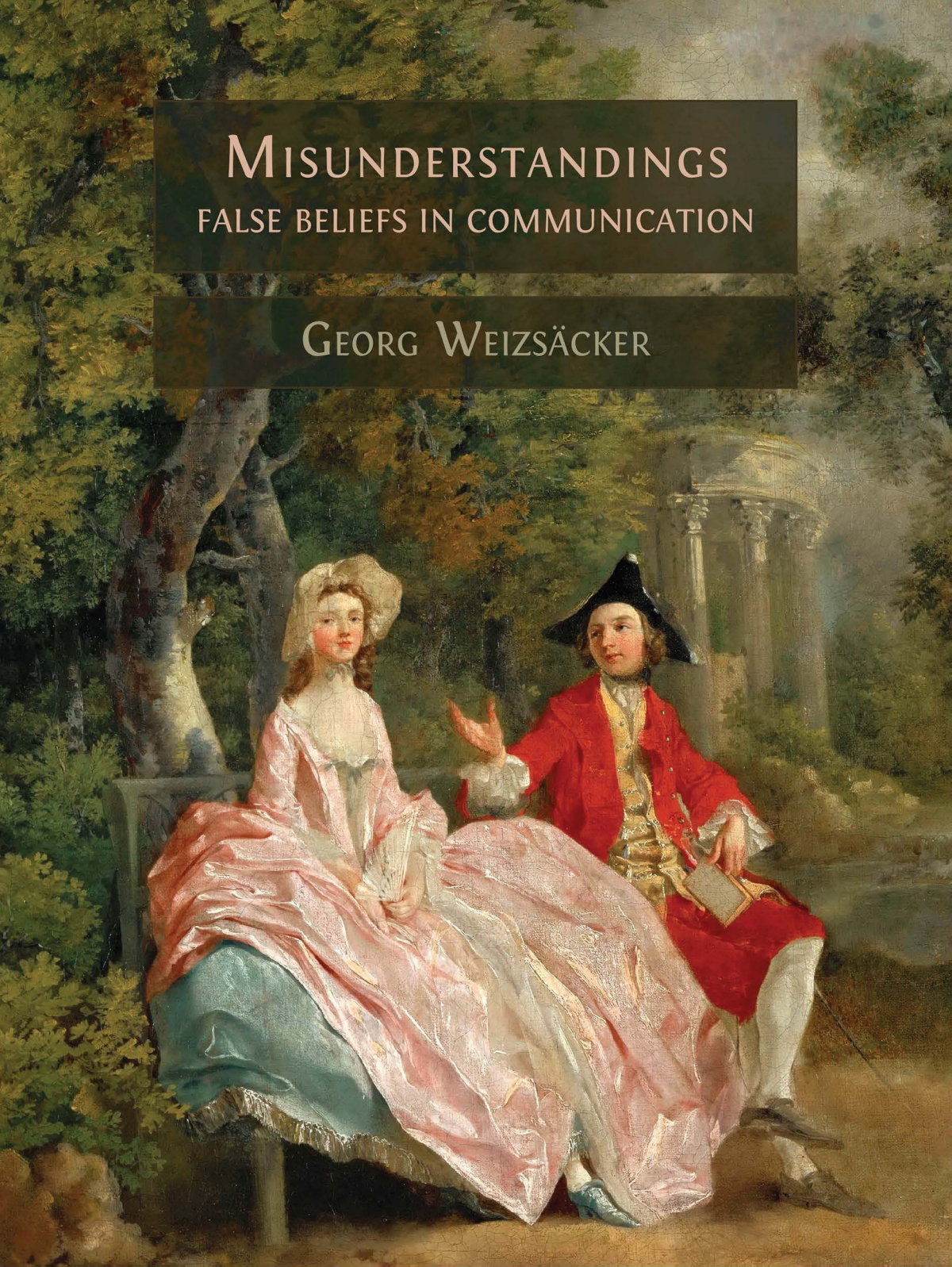


MISUNDERSTANDINGS FALSE BELIEFS IN COMMUNICATION

GEORG WEIZSÄCKER



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Chapter 1

Introduction: Should we talk?

Three tales that feature in this book

The governor exudes power. Rachel watches him from across the conference table. His occasional laughter is loud, his knowing smile invites others to speak, but not for too long. Today is his first visit to the institute. The institute's director has introduced the senior researchers sitting around the table, Rachel among them, and two of her colleagues have already made their contributions to the conversation. "Who else?" says the governor.

Dimitri finds Agnieszka at the elevator. They are on their way back to their offices, returning from an inter-group competition where they jointly presented a product – and suffered a defeat against a group of colleagues who showed a more effective design. Dimitri and Agnieszka had worked on their idea for about a year, with high hopes to win today and move to the next stages of development. Now, they have to reconsider. The elevator door opens.

Steve carries his ball in a swift walk around the block. He is looking for other kids to play with. Turning a corner, he almost bumps into Ralph. Ralph is much older, at least nine, and he is one of the schoolyard bullies. Today, on the sidewalk, he does not look bully-ish at all. His shoulders are drooping, his facial expression is sad and he leans against the wall of a building, as if seeking its support. The street is empty and Steve can see that Ralph was alone before he, Steve, had turned the corner.

About the book

Should we talk? This book treats this question, and many others, as being empirical in nature: if we were to live through a given situation in 1000 parallel lives, where in one half we talked and in the other half we didn't talk, in which of the halves would we fare better?

The results of such a thought experiment vary between Rachel, Dimitri, and Steve – or any other conversation that we may experience. Costs and benefits depend on the details of the conversation. Every conversation is different and rich in detail. Why, then, is this book so thin? The main reason is that the book, while asking questions with the usual scholarly care, is quite brief in its way of answering these questions. More precisely, it contains one empirical answer per question – **appearing in separate font** – and this answer is valid only for a specific context. The reader is invited to extrapolate, asking the same question for other conversations of interest.

Such extrapolation is, luckily, easy. Having conversations is an ubiquitous experience. Countless literatures give examples of noteworthy conversations, in the social sciences, business studies, psychology, and many other fields.

While the answers in this book are few, the set of questions is surprisingly exhaustive. The book's 18 questions about human conversations are, in a specific sense, *all* relevant questions up to a well-defined point. They systematically cover the ways in which a conversation can go wrong.

So, what are these ways of going wrong? This book describes a particular set: inaccurate expectations. We may fail to judge the situation correctly. We may think that things are plausible when they are not, in a way that reduces our utility. We may misjudge our partner in conversation, or the situation, or the language. The book thus approaches conversations through the expectations that they come with. It formulates 18 *misunderstandings*: ways in which expectations are off target. Misunderstandings may be the ugly ducklings within the family of beliefs. But hey, here they are. Sometimes, they may even be more important than their not-so-ugly cousins. It is therefore worthwhile to study their nature.

This leads to asking about the reader's benefit – why read this book? The main benefit is, perhaps, to learn something new in behavioral economics. Communication is a fast-growing research area in economics, and especially in microeconomics and organizational economics. Experimental measurements

of communication abound, too. But misunderstandings, despite appearing very frequently, are an uncharted area of research. Little is known about them, at least in the scholarly literatures of economics and business studies.

To help fill this gap, the book aims to give an overview of misunderstandings. It discusses the events, statements and actions that the misunderstandings are about – the “targets” of beliefs that are relevant in a conversation. In parallel, the book discusses the methods to measure the beliefs and it reports **evidence** on the distance between the beliefs and their targets. All of this follows an empirical approach. Each of the 18 questions put forward here is an empirical question, i.e., in principle its answer can be found through a well-designed measurement.

A notable distinction between this book and the descriptions of most other non-standard beliefs in behavioral economics is that misunderstandings are not described here with reference to a theoretical benchmark. Instead, a misunderstanding is just a belief that misses its target, empirically speaking. The book uses its conceptual parts merely as a springboard.

The non-theoretical exposition also means that the reader does not have to go through elaborate economic models. Having a general understanding of statistics suffices to follow the analysis. As a note of caution, however, the reader should know that parts of the analysis, especially in the book’s second half, are game-theoretic in nature, and thus non-trivial.

Credit where credit is due: psychology scholars have a long and valuable tradition of documenting misunderstandings and, more generally, all kinds of non-optimal beliefs and behaviors. The book includes some of these findings in its discussion. Interdisciplinarity is, always, key in behavioral economics.

The second benefit for the reader also has an interdisciplinary flavor: he or she will learn about the logic of human language. The book ventures outside of both psychology and economics: to discuss false beliefs in communication, one needs to ask basic questions about the interpretation of messages. Such questions are the object of study in the field of pragmatics, a highly developed part of linguistics and the philosophy of language. This field, too, has a tradition of studying misunderstandings, and significant parts of the book’s analysis rely on insights from it.

The author hastens to add that the book is not a suitable introduction to any part of psychology or pragmatics. It merely makes observations about

these fields and adapts some of their basic ideas from the vantage point of an economist. The main observation about pragmatics is a simple one: many of its ideas can be suitably studied via a description of beliefs. Economists are used to studying beliefs – but the beliefs that pragmatists emphasize are largely new to economics.

A well-known economic anecdote may serve as illustration. In July 2012, in the midst of the euro crisis, the European Central Bank’s president Mario Draghi made history with a short utterance: “Within our mandate, the ECB will do whatever it takes to save the euro. And believe me, it will be enough.” The statement was an instant hit – media reported it widely and the statement is now believed to have caused a market turn-around: speculation against the government finances of multiple countries, and against the euro, subsided. Markets returned to normal.

How can a simple statement be so influential? Or, expressed in terms of beliefs: What did the listeners expect when they heard it? What did Draghi expect when he said it?

A large part of the answer is linguistic. The statement carries much meaning and strength by alluding to several important contexts at once. First, Draghi points out that the scope of ECB’s activities is wide (“whatever it takes”). This was understood to indicate that the ECB would buy government bonds at a large scale if necessary. Second, he points to the depth of the bank’s pockets (“it will be enough”). Third, he points to the fact that he is a credible source of information about the previous two contexts and that the market traders, and all other listeners, know less about them (“believe me”).

The third of these contexts is especially relevant: presidents of central banks have an almost hard-wired commitment to being credible. Draghi ties this credibility to his knowledge about what the ECB can do. This is the context that he wants the listener to think about. A context where he, Draghi, is the master in the ring, which gives the statement its strength: the listener has no alternative but to believe him.

A feature of his statement, one that it shares with other successful statements, is that the listeners understand these relevant contexts although Draghi only ever-so-slightly alludes to them. But how? In a complicated world with a vast set of candidate contexts, how do the listeners learn what the talker refers to? It is a little miracle when it works.

A second example, also from the policy world, describes a misunderstanding. In April 2021, Germany’s political parties were in an open race for the succession of Angela Merkel as chancellor. Much of the political debate focused on Covid, at a time when the roll-out of vaccinations was still slow and a new wave of infections swept across Germany. Armin Laschet, a party leader and a front-running candidate for the chancellorship, made a public statement on Covid regulations. It was widely followed by the media, not least because Laschet himself had built up suspense by pre-announcing the statement a few days earlier. Then he finally made it: “We need a bridge lockdown.” The idea being, as he explained, that another temporary restriction of public life, while costly, may serve as a bridge to better times: the lockdown would give time to create more vaccine-induced immunity in the population. However, Laschet failed to gain support for his initiative. Instead, large parts of the public criticized him for inventing the new expression “bridge lockdown”. It was argued that using the positive-sounding word “bridge” to counter-act the public’s negative emotions about the restrictive measures amounted to being borderline deceitful. Also, commentators noted that all Covid lockdowns have the nature of serving as bridges to better times, such that Laschet said little that was new. (He later also lost the election.)

Laschet suffered from a basic misperception: he believed that the new, better-sounding wording (with an unusual sound also in the original German, “Brücken-Lockdown”) would make the public more favorable to his position. Alas, it did not. The choice of words drew attention away from the statement’s substance – which was not generally viewed as unreasonable – to the more superficial topic of the intention of the politician who uttered it. The statement lost its meaning by revealing that Laschet wanted it to sound meaningful. With such a strong emphasis, the public wanted more content than Laschet offered.

The later chapters of the book will discuss how such linguistic mechanisms may, or may not, work in general. As a one-sentence preview of this discussion, they may work because the listeners can see the conversation through the eyes of the talker. They interpret what the talker intends to achieve with the statement and what context the talker refers to. They search for the relevance of intentions and contexts, guided by the statement to find a useful insight (in Draghi’s case) or not (in Laschet’s case).

The reader may already recognize the sound of game theory here: a lis-

tener who thinks strategically does not only solve his or her own problem, but solves the talker's problem, too. Such second-order thinking is quite a task in a conversation because the listener needs to do several things at once: anticipate the preferences of the talker and consider the context that the talker refers to, among the many possible contexts that exist. It is complicated, and an invitation for misunderstandings, but not impossible.

Related questions may spring to the reader's mind, too. Doesn't the talker do the same, and solve the listener's problem? If so, don't both people need to engage in another layer of iterated strategic thinking, where each thinks how the other person, conversely, thinks about them? And so on – how many layers are there?

The book discusses conversations, by and large, with only two layers of strategic thinking. It sets out the definitions of the first-order beliefs that are relevant for the talker and the listener, then discusses these beliefs at length, then turns to the other person's expectations about them (i.e., second-order beliefs). As Chapters 9 and 10 will argue, the analysis could go further and consider beliefs of third and higher order, but they also argue that such a higher-order analysis would perhaps be less valuable than the analysis of lower-order thinking. Beliefs of higher order become less and less easily measurable, and studying them is often not necessary: many key insights arise without reference to higher-order thinking.

Chapter 11 gives some leads to further readings. The chapter also explains where each of the substantial ideas used in this book originate from. (This is important because the book's main body contains no bibliographic references. The chapter serves to give appropriate credit to other authors and literature, in the same way that other books or articles have bibliographic endnotes.)

Readers of all backgrounds will find that the book is short and dense. It is best to read it slowly. Or, perhaps, to complement its reading with that of other texts. The book is, however, a stand-alone, self-sufficient piece.

A note to course instructors who consider teaching with the aid of this book: it's best if you judge for yourself whether it works for your course. The author has repeatedly test-taught the book as the main reading for a Master's-level student seminar on the behavioral economics of communication. Students of different backgrounds can deal with the interdisciplinary material in very different ways, going deeper into secondary readings accord-

ing to their own interests. The expository style of asking questions aims to teach students about empirical research in a simple and transparent way. Finally, note that many different ways of splitting up the material are possible, making the book suitable reading for a half-term course or a full-term course.

The book's structure follows a rigorous but unconventional logic. The next chapter lays the groundwork and describes the book's assumptions about conversations. Essentially, it describes an analytical framework based on subjective expected utility theory (which implies large degrees of freedom). The subsequent six chapters formulate and discuss the 18 misunderstandings, three per chapter. Each is presented as a question about a possible misunderstanding, digging deeper as the book progresses. Chapters 3, 4, and 5 cover possible failures of first-order beliefs, and Chapters 6, 7, and 8 cover analogous failures of second-order beliefs. Chapters 9, 10, and 11 discuss how one may find more possible misunderstandings and how else the 18 questions can be placed in the wider literature on human communication. These three chapters are not part of the book's main body (reading them is very much optional) but they hopefully add clarity. The book's focus on misunderstandings is, definitely, not an excuse for avoidable confusion.

As the reader may have guessed already: the examples involving **Rachel**, **Dimitri** and **Steve**, which will re-appear throughout the book, are fictional and only serve for illustration. The **evidence from scholarly research**, in contrast, is real. It is only a thin layer of evidence but appears to show a pattern: many beliefs in communication are not very sophisticated in that they do not react to one or several pieces of information to a sufficient degree. Either the talker or the listener fails to take something into account.

Future measurements will tell us about this pattern's robustness. As described above, the book is written at a relatively early point in the sequence of the relevant research that it describes. It is much more about questions than about answers.

