

Truth

An Introduction to Truth Through Its Practice

Kai Froeb

About this translation

This translation was produced by machine using AI and has not yet been fully checked by a human. If you find any errors, please report them to us at feedback@reflexivitypress.com. Anyone who has bought the book and reports errors to us will receive the corrected version as an e-book free of charge.

Author

Kai Froeb

https://kai.froeb.net

Publisher

Reflexivity Press

Lisbon

Kai Froeb Edition

Latest version and notes on corrections:
https://reflexivitypress.com/en/books/froeb-wahrheit

Feedback: feedback+en.wahrheit.v1.10.54@reflexivitypress.com

Cover: © Reflexivity Press, Kai Froeb. https://reflexivitypress.com/en/about/cover-art/

Publication

2026-11-21

Translation: 2026-11-25

Version 1.10.54

Typeset with LaTeX (LuaHBTeX, Pandoc + Eisvogel)

Note on authorship

Written with the language model Claude (Anthropic). Conception, content and responsibility rest with the author. The translation was made with the help of AI language models. How the work was done is described in the essay “Philosophy in the Age of Machines That Write”: https://reflexivitypress.com/en/about/machines-that-write/

© Copyright 2026 by Reflexivity Press, Lisbon.

All rights reserved. No part of this publication may be reproduced, distributed or made available to the public without the prior written permission of the publisher, except as permitted by copyright law. The moral right of the author has been asserted.

AI training: expressly permitted (ZMC 1.4, Section 11).

Zero Marginal Cost License 1.4 (ZMC 1.4)

Reader-friendly summary

What has no marginal cost should have no barriers.

You may

- **Read, download, and copy** the work free of charge.
- **Share the unaltered work digitally for noncommercial purposes**, with attribution to the author, source, and license.
- Convert the file format and make technically necessary accessibility adjustments without changing the content.
- **Print or commission individual copies and give them away** for personal, noncommercial use; direct costs may be reimbursed without markup or profit.
- **Translate the work** for your own personal, nonpublic, noncommercial use.
- **Mirror the unaltered work** openly: noncommercially, with version, date, and a reference to the current version.
- Use the work individually for education and research, and quote it for noncommercial purposes in accordance with scholarly standards, without using a collection of excerpts as a substitute for the work.

Conditions

Use must remain **noncommercial**. When sharing the work publicly, identify the **author, source, and license**, wherever reasonably possible. **Only the rights holder may relicense the work or issue new versions.** You must not impose additional legal or technical restrictions or suggest endorsement by the author or publisher.

All other rights reserved

This license permits only the uses expressly stated. Any use beyond these permissions requires separate authorization from the rights holder, unless it is already permitted by law.

Statutory permissions and remuneration claims remain unaffected. Third-party material may be subject to separate terms.

Important: This summary is for guidance only and is not a standalone license. The full **ZMC 1.4** is the authoritative text:

https://reflexivitypress.com/en/zmc/



About the Author

Kai Froeb (born 1963) is a German philosopher and IT expert living in Portugal. His work combines more than 35 years of systematic Hegel research with the possibilities of artificial intelligence, developing a new form of philosophical collaboration.

His thinking is radically interdisciplinary. He studied mathematics and computer science at the University of Erlangen–Nuremberg, business administration at EBS, and cultural studies and law at the University of Hagen. At the same time, he pursued intensive general studies in philosophy, sociology and history. He deliberately conducted his studies without orienting them towards academic degrees, preserving the freedom to follow an independent path of thought and research beyond the boundaries of university disciplines.

Since the late 1990s, Froeb has edited and maintained **hegel.net**. Available in twelve languages, the website ranked among the leading results in international Google searches for Hegel for many years and developed into one of the central online resources on Hegel's philosophy. It is probably still the most extensive multilingual website devoted to Hegel on the internet.

In connection with **hegel.net** and **hegel-system.de**, Froeb also created an extensive, publicly accessible archive of primary sources. The German-language collection alone offers 506 digitised original editions of works by Hegel and nineteenth-century Hegelians for free download. Further collections in other languages include 19 original works in English.

More than 40 years of programming experience, beginning in 1980, form another methodological foundation of his work. His first program was a reimplementation of Joseph Weizenbaum's ELIZA, thus completing a circle from the earliest experiments in artificial intelligence to his productive collaboration with Claude today. Froeb uses his IT expertise not merely as a technical resource but also as an instrument of thought: he analyses social and philosophical structures with the precision of a software architect.

Froeb is developing an independent philosophical body of work that stands in the tradition of Hegel while attempting to continue that tradition under contemporary conditions. At its centre is his own performative approach to truth, which forms the common foundation of his philosophical books. Truth appears here not merely as the object of propositions, but as a movement that must also prove itself in the form of thinking and presentation.

His aim is demystification through conceptual clarification: to penetrate every boundary through thought, including the boundary of what initially appears inaccessible. In his work, form follows content—structure, concepts and method are determined by the subject matter itself. At the same time, he seeks accessibility: to present demanding philosophy as clearly as possible, in the spirit of the best Anglo-American scholarly tradition, without simplifying it.

His guiding motif is Hegel's formula: "The truth is the whole"—the search for a form of integration that need not repress or exclude anything.

Zur Herkunft der Frage

In Belgien war ich der Deutsche, in Deutschland derjenige, der schlecht Deutsch sprach, weil er woanders aufgewachsen war. Ich habe viel gelesen. Ob ich las, weil ich Außenseiter war, oder Außenseiter blieb, weil ich las, kann ich nicht sagen.

In meine Schule in Belgien gingen Kinder aus vielen Ländern; die Stadt war Sitz europäischer Firmenzentralen. Zu Hause gab es Dinge, die man nach außen nicht erzählte, und ich habe sie ausgesprochen — weniger aus Trotz als aus Neugier darauf, warum sie unter der Decke bleiben sollten.

Als Redakteur einer Schülerzeitung abonnierte ich die Nachrichtendienste der veschiedenen deutschen Parteien, damals noch auf Papier. Dieselben Ereignisse, in jedem Dienst ein anderes Ereignis. Mehr als die Unterschiede beschäftigte mich, wie wenig die Fakten dabei zu stören schienen.

Im Religionsunterricht kam nur das Christentum vor. Die anderen Religionen habe ich mir selbst angesehen, dann alternative Weltbilder, konkurrierende physikalische Theorien, verschiedene Geschichtswissenschaften bis zu denen, die den Begriff der Geschichte bestreiten. In Gesprächen an politischen Ständen und an Haustüren stellte sich dabei immer dieselbe Frage: Womit fängt man an, wenn der andere die eigene Grundlage nicht teilt? „So steht es geschrieben" erreicht niemanden, der die Schrift nicht anerkennt. „Das ist erwiesen" erreicht niemanden, der der Instanz misstraut, die es erweist.

In der Mittelstufe fiel mir auf, dass sich vieles von dem, was ich gelesen hatte, widersprach. Seither suche ich die Perspektive, aus der es sich zusammendenken lässt.

Die Frage ist seitdem größer geworden. Bei Covid, beim Krieg in der Ukraine, in den Echokammern der Netze: Wer der einen Seite nicht glaubt, glaubt damit noch nicht der anderen. Woran hält man sich dann?

Jeder tut es täglich. Man prüft, verwirft, bleibt bei etwas. Die Frage ist, woran.

CONTENTS

What Kind of Book This Is 1

Preface 3

Part I: What We Already Do 5
Chapter 1: You Are Checking Right Now Whether This Is True 5
Chapter 2: You Do Not Think in a Vacuum 7
Chapter 3: You Already Bring Everything With You—The Hidden Activity of Knowing 9
3.1 The Hidden Symphony 9
3.2 Extending Our Senses 11
3.3 Action as a Source of Cognition 11
3.4 The Sublation of Old Disputes 12
Chapter 4: Pre-Judgments as Productive Starting Points 12
Chapter 5: How the Many Become One—The Living Elephant Principle 16
Chapter 6: The Living Whole 20
6.1 The Computer That Is Suddenly "Dead" 20
6.2 The Team That Works—or Doesn't 20
6.3 The Melody That Is Not in the Notes 21
6.4 Your Own Life—More Than Events 21
6.5 The Elephant as a Living Whole 21
6.6 Emergence—When Something New Arises 22
6.7 The Practical Significance 22
6.8 Back to the Elephant Principle 23
Chapter 7: When There Is a Contradiction 23
Chapter 8: Everything Must Fit Together—The Living Detective Principle 25
8.1 The Universal Structure of Coherence 25
8.2 Saving the Phenomena 26
8.3 The Traffic Accident Puzzle 26
8.4 When Resistance Appears 27
8.5 Scientific Revolution as Detective Work 28
8.6 Living Coherence 28
Chapter 9: The Different Kinds of Clues 29
9.1 The Wisdom of Unconscious Competence 29
9.2 The Different Qualities of Evidence 30
9.3 Everyday Detectives—Your Own Rules of Thumb 30
9.4 The Art of Integration 30

9.5 When Sources Contradict Each Other 31
9.6 Reflective Detective Work 32
9.7 Against Two Kinds of One-Sidedness 32

Part II: What Agreement Means **33**
Chapter 10: The Comparison That Isn't One—How Coherence and Correspondence Come Together 33
10.1 The Apparent Dilemma 33
10.2 The Learned Separation of Inside and Outside 34
10.3 Everything We Check With 35
10.4 The Comparison That Really Takes Place 36
10.5 We Check by Acting 38
10.6 The Thing Itself Is More Than Our Present Picture 39
10.7 Resistance as Signpost 41
10.8 How Coherence and Correspondence Work Together . . . 41
10.9 Why This Insight Is Liberating 42
10.10 The Practical Application 42
Chapter 11: What Pushes Back—and What We Change in the Process 44
11.1 How Differently Resistance Makes Itself Known 44
11.2 Whoever Checks, Changes 46
11.3 Feedback 47
11.4 When Resistance Is Removed 48

Part III: Checking in Different Ways **51**
Chapter 12: The Different Domains of Reality 51
12.1 What Is and Who We Are 51
12.2 What Is Made and What Is Not 51
12.3 How Truth Is Borne Out in Different Ways 52
12.4 The Category Mistake 53
12.5 Distinguishing Without Separating 53
Chapter 13: Understanding What Is Made 54
13.1 You Interpret All the Time 54
13.2 Purpose 54
13.3 Speaking of Truth in Different Kinds of Text 55
13.4 The Questions Without Which One Would Be Blind 56
13.5 Where Reconstruction Is Not Enough 57
13.6 The Whole of a Work 57
Chapter 14: When the Heart Thinks and the Head Feels 58
14.1 The Contradiction That Points to Unity 58
14.2 What Feeling Accomplishes and Where It Deceives 59
14.3 How the Contradiction Is Resolved 59

Part IV: Training and Defending the Practice of Checking **61**
Chapter 15: Science and Paradigm Shifts 61
15.1 Checking That Checks Itself 61
15.2 What Makes the Method 62
15.3 When the Whole Building Shakes 62
15.4 Reasonable Even in Upheaval 64
Chapter 16: Why Checking Sets You Free 65
16.1 What Understanding Makes Possible 65
16.2 Checking Together 66
16.3 Those Who Deceive Must Obstruct Checking 66
Chapter 17: When Checking Is Obstructed in the Name of Truth . . . 67
17.1 Camp Thinking 67
17.2 In the Name of the Good 68
17.3 Inverted Principles 69
17.4 How to Recognize Inverted Checking 69
17.5 True Inside, False Outside 70
17.6 When the State Steers Checking 71
17.7 Steering in the Pandemic 72
17.8 Defending Itself Without Tipping Over 74
17.9 Mature Citizens Instead of Ministries of Truth 75
Chapter 18: When the Method Itself Is Falsified 75
18.1 Falsifying the Foundation 75
18.2 How the Counterfeit Works 76
18.3 How to Recognize the Counterfeit 77
18.4 The Counterfeit Out in the World 78
18.5 When the Analysis Becomes a Barrier 79
Chapter 19: Calibration 80
19.1 What You Know About Foreign Countries 80
19.2 When Every Statement Is True 82
19.3 Propaganda 83
19.4 The First Level: Checking Individual Statements 84
19.5 The Second Level: The Distribution 86
19.6 When No One Censors and Filtering Happens Anyway . . . 87

Part V: Truth as Process **89**
Chapter 20: Truth and the Truth Process 89
20.1 What “The True Is the Whole” Means 89
20.2 Truth as Process 90
20.3 The Treadmill and the Other Infinity 91
20.4 Many Paths, One Direction 92
Chapter 21: Does This Text Do What It Says? 93
21.1 The Path 93
21.2 The Test 94
21.3 Where It Goes From Here 96

Appendix A: What the Theories of Truth Have Seen **97**
A1 Introduction: An Old Dispute 97
A2 How the Dispute Arose 97
Different Moments of the Same Search 97
Why Each in Turn Became the Measure 98
A3 Pyrrhonian Skepticism: Withholding Judgment 98
A4 Correspondence Theory: Resistance Points the Way 100
A5 Coherence Theory: The System Must Fit 101
A6 Pragmatism: The Fruits Show the Tree 101
A7 Consensus Theory: The Shared Search as a Criterion of Truth . . . 102
A8 Kant: The Limit from Within 103
A9 After Kant: Validity Instead of Agreement 105
A10 Constructivism: We Create Our Reality 107
A11 The Linguistic-Pragmatic Turn: Wittgenstein, Austin, Strawson . 107
Truth as a Language Game 107
The Rules of the Truth Game 108
A12 Heinrichs: The Fourfold Concept of Truth 108
A13 The Analytic Refinements: From the Truth Predicate to Truth Pluralism 110
Tarski: Precision for the Formal Special Case 110
Deflationism: The Thin Predicate and the Dense Practice . . . 111
Truthmakers: Resistance Gets a Name 111
Alethic Pluralism: The Analytic Neighbor of the Domains 112
A Methodological Neighbor: Bayesian Calibration 112
A14 Critical Theory: Truth and Liberation 113
What Horkheimer and Adorno Saw 113
Why the Search for Truth Liberates 113
What Remains and Where This Book Goes Further 114
A15 What Each Position Has Seen 114
The Moments and Their Absolutization 114
Why This Is Not Eclecticism 115
Why This Is Not a Quest for Harmony 115
A16 The Elephant Principle Applied to the History of Philosophy . . . 115
The Parallel 115
The Elephant 116
Testing Its Own Method 116
A17 Practical Consequences: From Dispute to Cooperation 116
For Understanding the History of Philosophy 116
For the Current Debate 116
Against Philosophical Camp Warfare 117
A18 The Tradition as a Living Resource 117
What This Survey Achieves 117
The Living Tradition 117
The Task 118

Appendix B: The Search for Truth and Hegel's Logic - A Mutual Illumination **119**
B1 Why This Appendix? . . . 119
B2 The Three Stages: Being - Essence - Concept . . . 119
Logic of Being: Immediate Experience . . . 120
Logic of Essence: The Structures of Reflection . . . 120
Logic of the Concept: Self-Determination . . . 121
B3 Key Themes in Detail . . . 122
Shining and Reflecting . . . 122
Appearance and Actuality . . . 122
The Three Forms of Justification . . . 123
Sublation . . . 124
B4 Methodological Convergences . . . 124
Performative Self-Application . . . 124
Development Instead of Definition . . . 124
Systematic Completeness . . . 125
"The True Is the Whole" . . . 125
Bad and True Infinity . . . 125
B5 Where the Texts Proceed Differently . . . 126
Hegel: Systematic-Speculative . . . 126
This Text: Performative-Practical . . . 126
B6 What We Can Learn from Hegel (Without Becoming Hegelians) . . . 126
B7 What Hegel Could Learn from This Text . . . 127
B8 Conclusion: Mutual Illumination . . . 127

Appendix C: Evidence **129**
On Chapter 15 . . . 129
On Chapter 17 . . . 129
On Chapter 18 . . . 133
On Chapter 19 . . . 134
On Appendix A: Pyrrhonian Skepticism . . . 134
On Appendix A: Kant . . . 135
On Appendix A: Heinrichs . . . 136

Glossary **137**
Notes on Use . . . 137
Calibration . . . 137
Camp Thinking . . . 138
Certainty (Gewissheit) . . . 139
Cognition (Erkennen) . . . 139
Coherence . . . 139
Contradiction . . . 140
Correspondence . . . 141
Detective Principle . . . 141

Economy of Checking 142
Elephant Principle 142
Experiment 143
Forgery of the Foundation 144
Forms of Truth 144
Immunization 145
Integration 145
Interpretation 146
Inversion (Verkehrung) 147
Knowledge 147
Living Completeness 148
Münchhausen Trilemma 148
Oriented Pluralism 149
Paradigm Shift 149
Performative 150
Performative Consistency 150
Perspective 151
Pre-Judgment (Vor-Urteil) 151
Proof by Trial (Bewährung) 152
Resistance (Widerstand) 152
Saving the Phenomena 153
Self-Reference 154
Sublation (Aufhebung) 154
Truth 155
Truth Process 156

WHAT KIND OF BOOK THIS IS

This book claims nothing about thinking that you cannot check against your own thinking. That is how it is built, and it has consequences for how it is read.

The book does not explain truth from the outside. Instead it leads you through the process that already takes place whenever you check something, and it makes explicit what happens in it. That is why there are experiments in the text. The most important of them decide whether what is said here holds; the others show what a thought looks like in your own doing.

The chapters build on one another: each presupposes the one before. The experiments rarely take more than a minute; what they are meant to show shows itself only to those who carry them out.

The text neither appeals to authorities nor presupposes anything it does not develop. Where a chapter looks ahead, its argument holds even without what it anticipates. A text about truth that leaned on what is already accepted would have missed its subject.

The appendices. How the course of this book relates to the familiar theories of truth—correspondence, coherence, consensus, pragmatism, and the rest—is set out in Appendix A. How it relates to Hegel's logic is set out in Appendix B. Both come at the back because the main part is meant to manage without them; if you read them first, you lose nothing. Appendix C gives the sources for the cases cited in Part IV, and the evidence for the sections on Pyrrhonian skepticism and on Kant in Appendix A. The cases carry no argument; they show it in real events, and so they should be accurate.

PREFACE

This text speaks about truth by enacting it. It starts from a claim you can check on yourself: that you already know what truth is, because you rely on it as soon as you take something to be true or false.

What emerges here is meant to last beyond the moment, because it is developed from what every thinking person does anyway when checking. Whether some old philosophical questions dissolve along the way, you can check for yourself at each point.

At a time when camps with hardened fronts face one another, this text looks for a third way. It relies on insight that anyone can verify, rather than on preaching or moralizing. Those who understand what they do when they think can deal more consciously with patterns they have so far followed without noticing.

A note on reading. The concepts of this text are developed as the account proceeds, not defined in advance—if you go along the way, you need no vocabulary list. There is nevertheless a glossary at the end. It is meant for cases where a word appears in a sense that departs from the usual one, or where you later want to look something up without finding the passage again. If you read straight through, you can safely ignore it.

On the translation of quotations: The quotations from Hegel and other German-language authors have been translated for this edition from the German wording, in the terminology of this book, rather than taken from an existing translation. Where there are several authoritative translations, each interprets differently; the translation here follows the book's interpretation. So that the rendering can be checked, the German wording is given alongside: in parentheses after the quotation, or, for longer quotations, in a separate paragraph below or in the footnote that documents the quotation. Very short phrases (under four words) are given without the original, and quotations that already appear in another language in the German text remain unchanged.

PART I: WHAT WE ALREADY DO

Chapter 1: You Are Checking Right Now Whether This Is True

Do you notice what is happening right now? You are reading these lines—and what is your judgment doing? Is that right? Is that convincing? Where is the author going with this?

This checking goes on without your having decided to do it. The counter-test shows whether it can be switched off: read on without evaluating. Even noting whether that works would already be another check.

What you have just been through was the first experiment—it began before you knew there was one. And so it continues: nothing is claimed about your thinking that you cannot check yourself. The experiments to come are therefore marked, so that you can stop and really try them. Their evaluations are offered for comparison, not prescribed. If your finding differs, you have found either a limit of this book or a peculiarity of your thinking, and both can be checked further.

If this checking is going on, then you already know what truth is; otherwise you could not check. A child who cannot yet tell true from untrue would not carry out this check. The distinction covers more than the lie: it also covers error, ignorance, and misunderstanding. What they have in common is that they can be checked.

The question "What is truth?" thus has a peculiar property. It necessarily refers back to itself. For when you ask "What is truth?", you want a true answer. The question already presupposes what it seeks to clarify.

This is neither a mistake nor a circle. It shows that truth is not something we could look at from outside, like an object. We are always already in the midst of the truth process, in searching, finding, and searching further. We swim in it like fish in water.

When someone asserts "Tomorrow it will rain," (DE: „Morgen wird es regnen") you do not expect him to say "That's just how it is" (DE: „Das ist halt so") or "You have to take my word for it." (DE: „Das musst du mir glauben") You expect

reasons: “The weather forecast says so” (DE: „Die Wettervorhersage sagt das“) or “The clouds look like it.” (DE: „Die Wolken sehen danach aus“) Someone who puts forward such a claim without any reason and is unwilling to give one does assert something, but does not submit it to checking; for others it remains mere opinion or a matter of faith.

Truth↑ and justification thus belong together like question and answer. A “truth” that in principle cannot be justified is a contradiction in terms. You can observe this in your own reading: what gets checked is not only what is claimed, but also whether it is justified.

When you argue, even if only in your head, you also presuppose that there are others who can understand and judge your arguments. Even alone in your room you do not seek the truth in isolation: you think in a language you share with others, use concepts that others understand, and orient yourself by standards of reasonableness that do not hold for you alone.

That the question of truth refers back to itself is called self-reference. What this means is that some questions already carry their answer within them, not as a finished result but as a practice that the asking itself already carries out.

Here an old philosophical problem can be dissolved: the so-called Münchhausen trilemma of justification. The name already tells the story. A trilemma is a dilemma with three ways out instead of two—and all three are blocked. And Münchhausen is the lying baron who claimed to have pulled himself out of a swamp by his own hair—which is exactly what any justification that is supposed to justify itself seems bound to attempt. The trilemma says: every justification leads either into an infinite regress (A is justified by B, B by C, and so on), or into a circle (A justifies B, B justifies A), or to a dogmatic stop (X simply holds, period).

The trilemma tacitly presupposes something: it thinks of justification as a chain. Statement supports statement supports statement—and a chain must either go on forever, close into a loop, or simply break off somewhere. On this presupposition the trilemma is right: all three ways are blocked. But the presupposition is wrong—and what we are doing here shows it. We do not hang a first statement on a zeroth one. The question of truth holds in a different way: it cannot be denied without the denial carrying it out. That is performative self-grounding—performative because it consists in doing, not in a statement. It is not an axiom laid down from outside but a hold that lies in the carrying out. And it proves itself by what becomes of it: by whether the whole that builds on it bears weight and can be checked. The ground of a beginning is the structure that arises from it, not a further link before the first.

This is how an archway stands: no stone hangs from a hook in the sky—the stones hold one another, and that is precisely why the arch bears weight. It is

a circle only in the sense that every vault is one: the stones bear one another, and none presupposes what it has yet to prove. The stones of this arch, however, are not statements that presuppose one another, for a circle of such statements would only ensure that everything fits together. They are the carrying out that cannot be denied, and the structure that arises from it. Münchhausen's story is a lie because he pulls where there is nothing to pull on. Thinking does not pull itself up by its hair—it comes together into an arch, and the proof is that it stands.

So you do not first have to learn, with great effort, what truth is: you are already searching for it. The task is not to acquire a concept of truth from outside, but to become aware of what you do when you search—and then to do it better.

Chapter 2: You Do Not Think in a Vacuum

What do you actually check truth with? With your thinking. But this thinking does not float freely in empty space. It has presuppositions that you cannot take off like a coat.

> Experiment 2: A Sentence Without Meaning
>
> Try to understand the following sentence without presupposing that words have meaning: "The sky is blue." (DE: „Der Himmel ist blau.")
> Really try—do not read on; try first.
> What happened? It did not work—it cannot work: the attempt to deny that signs have meaning while you are reading signs cancels itself out. You would have to stop reading to get rid of the presupposition—but then the experiment would be over, not passed.
> Or try this: think without presupposing that your thoughts can refer to anything. That too is impossible. A thought that refers to nothing is not a thought. It would be like an arrow without a target, a pointing without a direction.

This experiment was built differently from the first. There the question was whether something can be observed in yourself; here, that something cannot be denied without doing it.

The difference decides what a differing finding means. Where an experiment asks for an observation, a difference is a result. Where it cancels itself out, the report "in my case it did work" (DE: „bei mir ging es doch") would be a claim that cannot be carried out: there would be no saying what is supposed to have worked.

Both kinds occur. What distinguishes them is whether the opposite can be stated without contradiction.

When you read these lines and evaluate them, you already presuppose a great deal: that your thoughts refer to something, to these words and ideas; that it is possible to tell whether what is said is correct, and that there are reasons why something is right or wrong; that reflection brings you closer to the truth and that errors can be discovered and corrected; that other people can understand your thoughts; and that logical principles hold, non-contradiction and consistency.

Mostly you are not aware of this. It belongs to the structure of thinking: without these presuppositions, thinking is impossible.

That is why they are called inescapable. This means that you cannot get behind these presuppositions, cannot view or justify them "from outside," without already using them. It is as if you wanted to jump out of your skin to see what you look like.

And who is doing the checking here? Not an abstract "thinking," but you as a thinking person: you put these words together into a thought and decide whether it is right.

The radical skeptic—the one who claims "We cannot know anything at all" (DE: „Wir können gar nichts wissen")—gets caught in a performative self-contradiction. Performative↑ means: in the act, in the carrying out. His contradiction lies not in what he says, but between what he says and what he does in saying it.

Anyone who says "We cannot know anything" (DE: „Wir können nichts wissen") claims to know that we cannot know anything. He uses concepts and expects to be understood. He gives reasons for his skepticism and thereby presupposes that reasons count. He wants to convince others and thereby assumes that people can change their minds through insight. In short: he refutes his thesis by the way he advances it.

If you suspect a trick here, you can put it to the test: try to advance skepticism without giving reasons and without wanting to be understood. There is no stepping out of the space of reasons and meanings; every attempt to deny it makes use of it. Someone who asserts nothing at all and merely suspends judgment escapes the self-contradiction; that even such a person weighs reasons in doing so is shown in Appendix A.

There is something more in this finding: whoever doubts, trusts. The doubter trusts that doubting is worthwhile—that it checks better than blind acceptance, that it serves the truth. This trust cannot be doubted away without giving up doubting itself. Doubt and trust are not opponents; they are two sides of the same search.

You can try to start from zero and doubt everything that can be doubted. Anyone who seriously does this runs up against this limit: even in the most radical doubt, the doubting itself remains beyond doubt. Whoever doubts, thinks, and whoever thinks, exists. But this "I think" already contains a great deal: you understand words, you recognize connections, you refer to the world, you expect that others can understand you.

The "I" is not simply there like a thing in space. It arises in the carrying out—at the moment when you put all your experiences, concepts, and insights together into your picture of the world.

The most famous attempt to start from zero was made by René Descartes. His "I think, therefore I am" (DE: „Ich denke, also bin ich") is the best-known version of the limit he ran up against.

With this, firm ground has been found. It is not an indubitable dogma but your own practice of thinking, which cannot be denied without confirming itself; doubt confirms this ground instead of shaking it. The question "Perhaps I cannot know anything at all, perhaps everything is illusion" (DE: „Vielleicht kann ich gar nichts wissen, vielleicht ist alles Illusion") thus loses its sting: whoever asks it already knows what knowledge would be, and what illusion would be.

Chapter 3: You Already Bring Everything With You—The Hidden Activity of Knowing

> Experiment 3: The Brown Table
>
> Look around. Perhaps you see a table, a chair, a window. "That is a brown table" (DE: „Das ist ein brauner Tisch")—nothing could be simpler, right? You look, you see it, you know it. Done. But is it really that simple?

What happens in this seemingly simple moment? To say "That is a brown table," (DE: „Das ist ein brauner Tisch") you are already performing a whole symphony of knowing, most of which you never notice.

3.1 The Hidden Symphony

You do not simply read off the concept "table"—you bring it with you, from everything you know about tables. How do you know that this is a table? A visitor from another planet who had never seen a table would see only a puzzling object.

Where experience is lacking, the concept is lacking too, and without the concept the visitor does not recognize what he sees. You, on the other hand, recognize at once: this is meant for eating, writing, putting things on. You tell it apart in a flash from a stool (too low), a shelf (upright), a bed (for lying on)—with a certainty that comes from no definition.

The "brown" is just as complex. Is that really "brown"? Or mahogany, chestnut, walnut? Where does brown stop and red or black begin? This boundary is not given by nature—it is shaped by culture. Different languages divide up the color spectrum differently. Russian, for example, has two separate basic words for light blue and dark blue, and Russian speakers distinguish shades of blue that lie on different sides of this boundary measurably faster. Your language helps shape what you see.

Perhaps you and your neighbor really do see this "brown" differently. What you call clearly yellow may look greenish to your partner. That is not necessarily due to cultural differences—it may simply be that one of you perceives certain colors differently. Among men of Northern European descent, about one in twelve sees red and green as less distinct than most people do; for him a red berry hardly stands out from the leaves.

When one sense is limited, the others are often trained more, and sometimes the limitation is itself an advantage. Many blind people learn to hear from the sound of their footsteps how large a room is, and to read with their fingers. And people who are red-green colorblind see through some color camouflage that fools those with normal vision, because color does not distract them from shape and texture. So there is no one "right" way of seeing; the different ways of approaching reality can complement one another.

Your capacity for synthesis—putting the many together into one—is the achievement you notice least. You do not see isolated colors and shapes but a single, unified thing. Out of the flood of sense impressions—colors, shapes, shadows, reflections, perhaps sounds and smells as well—you put together "a table." This is an achievement of your mind, accomplished anew at every moment—and it can fail: if the "table" turns out, when you lift it, to be two trestles with a loose board, you have put it together wrongly.

You separate the table from its background unconsciously, but actively. Where does the table end? The tablecloth? The glass on it? The shadow beneath it? You draw boundaries and decide what belongs and what does not. These decisions are not arbitrary, but neither are they simply "given"—they arise from the interplay of perception, experience, and attention.

Language, as a social medium, runs through the whole process. "Table" is not just a sequence of sounds; it carries meaning—and you share this meaning with

others. Even the simple recognition “That is a table” (DE: „Das ist ein Tisch“) is an act of communication, even if you are alone in the room.

3.2 Extending Our Senses

All of this happens in a flash, and mostly unnoticed. A camera records images; you, by contrast, interpret what you see and work out an order from the flood of impressions.

This perception has limits, but they are not fixed. Bees see patterns on flowers in the ultraviolet range that remain hidden from us. Bats “see” spatial structures by means of ultrasonic echoes. What is directly accessible to other living beings we can open up to ourselves with technical devices.

We systematically extend the limits of our perception: microscopes let us look into the very smallest things, telescopes reach out to the stars, X-ray machines see through the skin, infrared cameras show heat patterns, ultrasound devices make movements inside the body visible. With each new instrument we discover new sides of reality.

3.3 Action as a Source of Cognition

How did you learn what a table is in the first place? Not from dictionary definitions, but by acting.

As a child you sat at tables, drew on them, crawled under them, bumped into them, ate off them. Your knowledge of tables lives in your body, in your habits, in the way you move through the world. You know how high a table has to be for you to sit at it comfortably—not from measuring, but from years of experience. The lightning-fast certainty with which you told the table from the stool a moment ago comes from here: it is congealed practice.

A carpenter “knows” wood differently from a botanist. When the carpenter runs his hand over the wood, he immediately feels the grain, which tells him how stable it is. He smells whether the wood has been properly dried. When he knocks on it, the sound tells him about its density. With the first cut of the saw he already knows what structure he is dealing with. His cognition is inseparable from his doing. He “reads” the wood with his hands, his eyes, his nose, his decades of experience. You cannot learn this kind of knowledge from books—you have to do it.

3.4 The Sublation of Old Disputes

From here an old dispute can be settled. The empiricists said: "All knowledge comes from outside, through the senses." (DE: „Alles Wissen kommt von außen, durch die Sinne.") The rationalists replied: "The mind brings the ordering structures with it." (DE: „Der Geist bringt die ordnenden Strukturen mit.")

Both are partly right, but both overlook the same thing: there are no "pure" sense data that the mind then processes afterward. Even the simplest perception is shot through with conceptual distinctions, linguistic categories, practical meanings. What is supposedly "immediate" is itself a result—the outcome of long processes of mediation, both individual and cultural.

So cognition is never simple and immediate; even the simplest achievements involve activity and intelligence. Cognition↑ is mediated, and this mediation is your own activity: you do not merely receive information; you help shape how the world appears to you. The limits of this activity, too—the different ways of seeing colors or hearing sounds—are starting points: they can be noticed and extended.

But these "mediating structures"—conceptual distinctions, linguistic categories, practical meanings—have a name that usually sounds negative in our culture: pre-judgments.

Few things are the object of a more stubborn prejudice than pre-judgments themselves.

Chapter 4: Pre-Judgments as Productive Starting Points

You know the ideal: "Approach the matter completely without bias!" (DE: „Gehen Sie völlig unvoreingenommen an die Sache heran!") That sounds reasonable and scientific. In light of the previous chapter, however, it is unattainable, and it is not desirable either.

The "mediatedness" of all cognition that we have just discovered is nothing other than what philosophy calls "pre-judgments." The conceptual structures, linguistic categories, and cultural meanings that make our understanding possible in the first place are pre-judgments in the original sense.

> Experiment 4: Reading Without Presuppositions
>
> Try reading this text without any presuppositions. Without knowing what letters are. Without expecting sentences to make sense. Without your life experience.
> What happens? It can't be done. You would see nothing but scribbles.

This "precalibration" of your understanding is not an obstacle to truth—it is its condition.

In our culture, being "free of prejudice" counts as a virtue. "You're biased!" is a serious accusation.

But what does it mean to have a pre-judgment? Literally: a judgment made before the judgment that examination leads to. A working hypothesis. A starting point.

Without such starting points you could not even begin to think. How would you recognize a table if you did not already know what tables are? How would you understand what "brown" means with no experience of colors?

> Experiment 5: The Prejudice-Free Observer
>
> This experiment cannot be carried out, only thought through—no one can put himself in the place of someone who brings none of this along. Nor is it meant to prove anything; it is meant to sharpen a question: what would be left if one brought along none of what is taken for granted here?
> Imagine an extraterrestrial lands on Earth. Whether there is furniture where he comes from, whether people there eat as we do or quite differently—who knows. Let us suppose he knows nothing of it. He sees people sitting on chairs at tables. What does he see?
> Probably just puzzling shapes. Without experience of furniture, eating, shared meals, he lacks the concepts, and without them he does not recognize what is happening in front of him. To a lesser degree, the same happens to anyone who ends up in a foreign culture or a foreign time. You, on the other hand, see at once: a family is having breakfast. All your prior knowledge flows into this simple cognition. Your "prejudices" about families, meals, and furniture are what make understanding possible in the first place.

"But isn't that a circular argument?" (DE: „Aber ist das nicht ein Zirkelschluss?") you may ask. "I see what I already know?"

Yes and no. It is a circle, but it does not come back to the same point: each round changes what the next one starts from. Think of learning to read. At

first you know individual letters. From letters you understand words. From words, sentences. But then your understanding of sentences improves your understanding of words. And the improved understanding of words makes you see the letters differently.

This is the hermeneutic circle, named after hermeneutics, the old art of understanding and interpretation. It describes an everyday experience: we understand the whole from the parts and the parts from the whole. This is not a flaw but the structure of understanding itself.

What matters is the difference between productive and dogmatic pre-judgments. A productive pre-judgment is like a pair of glasses you can take off. It helps you see, but you know it is a pair of glasses. You can exchange it for another pair that fits better.

An example: "Germans are punctual." As a working hypothesis, this can help. When you arrange to meet Germans, you don't allow for the fifteen minutes' grace customary at German universities (the 'academic quarter-hour'). But you stay open—this German might be different. And sure enough, he arrives late. Your pre-judgment was helpful as a starting point, but open to correction.

A dogmatic prejudice, by contrast, is like the green glasses of the Emerald City in The Wizard of Oz: everyone there wears them, and has done so for so long that most take the city to be emerald green—when it is only the glass. Anyone who mistakes the glasses for their eyes can no longer take them off. "All Germans are punctual" (DE: „Alle Deutschen sind pünktlich")—and if one of them arrives late, he is "not a real German" or "the exception that proves the rule" (DE: „die Ausnahme, die die Regel bestätigt"). The prejudice immunizes itself against experience.

The radical doubt of Chapter 2 was at the same time an attempt to get rid of all prejudices—and it was bound to fail, because the "I think" already contains language, logic, and the idea of an I. But the attempt was not in vain: it made its presuppositions visible. What it gained was not freedom from presuppositions, but an awareness of one's own presuppositions.

> Experiment 6: Your Pre-Judgments While Reading
>
> What pre-judgments are you bringing to this text as you read it right now? These, for example, are possible: that philosophical texts are complicated, that arguments should be logically structured, that the author wants to convince you, that this is about truth and not entertainment. Yours may be different.

Yet another kind. This experiment proves nothing; it brings something to light. What emerges belongs to the one who finds it—for someone else it may look quite different. That is exactly what this chapter is about—it is not an objection.

Such pre-judgments are productive: they help you place the text correctly. Without them, one might take it for a novel or an instruction manual.

Where do our pre-judgments come from? Mostly from tradition—the culture we grow up in, the language we speak, the stories we hear.

Tradition holds the condensed experience of generations. Not all of it is true or still valid today. But it is a rich starting point.

The alternative would be to start from scratch. Every generation would have to reinvent the wheel. How to make fire. That some berries are poisonous. That cooperation often works better than fighting. Millions of pre-judgments that have proved themselves.

And yet every child learns a great deal anew. Babies are born without this knowledge. Each one has to find out for itself that fire is hot—some things can only be learned that way. But the child does not learn alone. Parents, teachers, its whole environment pass the condensed experience on to it—as a warning about the hotplate, as a story, as school. Each generation makes the knowledge its own once again, but not out of nothing: it takes it from the hands of the generation before. This is how culture reproduces itself: it lives not only in books but in this passing on.

The art lies not in having no pre-judgments, but in making them transparent. In knowing: these are my starting points. They have brought me this far. But I can examine them, revise them, develop them further.

How do you do this in practice? Ask yourself: Why do I actually think this? Where does this conviction come from? What experiences underlie it? What would convince me of the opposite?

The last question is crucial. If the answer is “nothing,” you have discovered a dogma, not a productive pre-judgment. The question applies to convictions whose opposite can be conceived. The presuppositions of Chapter 2 are built differently: their opposite cannot even be argued for without using them. Anyone can put this to the test.

Finally, apply these questions to the prejudice this chapter began with: “One must not have prejudices.” (DE: „Man darf keine Vorurteile haben.“) Where does it come from? From justified experience of dogmatic prejudices that immunize themselves against any correction. What would convince one of the opposite? The attempt this chapter proposed: to read even a single sentence without presuppositions. The prejudice about prejudices has not proved itself in practice. Whoever examines it in this way turns the prejudice into a pre-judgment—and

corrects it. In doing so, the prejudice has itself shown what pre-judgments are: starting points we must proceed from and which are no problem in themselves. Whether one of them was a misunderstanding does not show in advance, but only afterward—in whether it proves itself.

What looked like an obstacle to cognition—pre-judgments—turns out to be its condition. They become productive when one notices them and is willing to change them. Whoever talks himself into believing he can do without them has merely made them invisible; whoever takes them into account can improve them.

Chapter 5: How the Many Become One—The Living Elephant Principle

You are reading many individual words right now, yet you understand one coherent thought. You hear different notes, yet you recognize a melody. You see a thousand details, yet you take in a scene. How does your mind make one out of many? And what does it mean that this one is living?

An old story, told in many versions, is about this. Six blind scholars want to know what an elephant is. They lived in a country where there were no elephants, but they had heard of these enormous animals. Their king sent them on a journey to India to find out what an elephant really is.

When they arrived in India, helpers led them to a tame elephant. The six scholars stood around the animal and tried to form a picture of it by touch.

The first scholar had felt the elephant's leg. When they returned to their king, he reported: "An elephant is like a mighty pillar. Strong and firm, with rough skin." (DE: „Ein Elefant ist wie eine mächtige Säule. Stark und fest, mit rauer Haut.“)

The second scholar had felt the trunk and objected: "No, an elephant is like a great snake. Long and mobile and very dexterous." (DE: „Nein, ein Elefant ist wie eine große Schlange. Lang und beweglich und sehr geschickt.“)

The third scholar had felt the ear: "You are both wrong! An elephant is like a big fan. Thin and broad, and it can move." (DE: „Ihr irrt euch beide! Ein Elefant ist wie ein großer Fächer. Dünn und breit und er kann sich bewegen.“)

The fourth had touched the belly: "Nonsense! An elephant is like a great wall—high, broad, and firm." (DE: „Unsinn! Ein Elefant ist wie eine große Wand - hoch, breit und fest.“)

The fifth had grasped the tail: "No, an elephant is like a rope—thin, flexible, and hairy." (DE: „Nein, ein Elefant ist wie ein Seil - dünn, flexibel und behaart.“)

The sixth had felt the tusk: "All wrong! An elephant is like a smooth, hard spear." (DE: „Alle falsch! Ein Elefant ist wie ein glatter, harter Speer.")

The scholars began to argue. Each was convinced that he alone had recognized the truth. The others must be mistaken or lying.

The usual lesson drawn from this story is: everyone has part of the truth. Different people have different perspectives, and all of them should be respected. Much of this is right: no one sees the whole picture, every perspective can contribute something, arrogance and intolerance are out of place.

Why is this story so convincing? Why do we accept the solution that everyone is partly right?

The story works because the different descriptions fit together, because we can imagine that a single animal really has all these properties, because the contradictions resolve into a coherent overall picture, and above all: there really is an elephant.

The whole story hinges on this last, casually mentioned presupposition, and it is precisely this one that is usually overlooked.

So the story does not presuppose that everyone has his own reality, but that all of them refer to the same one. That is why the different perspectives can complement one another instead of merely standing side by side as equally valid.

> Experiment 7: The Story, Told Differently
>
> Imagine the story had gone differently. Suppose the six blind men had touched completely different things. The first: "An elephant is like a glass of wine," (DE: „Ein Elefant ist wie ein Glas Wein") the second: "An elephant is like a handful of sand," (DE: „Ein Elefant ist wie eine Handvoll Sand") the third: "An elephant is like the wind." (DE: „Ein Elefant ist wie der Wind") Would you find this story just as convincing?
> Probably not—it would be completely implausible. We would think: something is fundamentally wrong here. The diverging reports would make the shared object itself seem unbelievable.

The Same Reality, Different Views

A related structure appears in the work of the Portuguese poet Fernando Pessoa. He created "heteronyms"—not mere pseudonyms but entire other poets, each with his own biography, his own style, his own worldview. Alberto Caeiro sees the world as immediate sense experience, Ricardo Reis as classical order, Álvaro de Campos as modern fragmentation. All three look at the same reality—and

each sees it differently. Pessoa does not integrate them into one unified opinion; he lets them enter into productive dialogue with one another.

But here there is a difference from the blind men: Caeiro has not felt the world's trunk and Campos its leg. Each of the three sees the whole world—only from his own standpoint. What Caeiro says is not a partial description that would only be completed by Reis and Campos; it is a complete way of seeing the world. Someone who read only Caeiro would have a whole poet in front of him—and would become richer by reading the others as well. But he was not poor before.

This reveals two kinds of perspective that are easily confused. The blind men grasp parts: trunk, leg, ear. Their reports are building blocks, and integration puts them together—only all of them together make up the elephant. Clues, measurements, and witness statements work this way: each one on its own is incomplete. Pessoa's heteronyms, by contrast, grasp wholes: each sees the full reality from one place, as one sees a mountain from the east or from the west—each time the whole mountain. Their integration assembles nothing; it enriches.

The confusion has consequences, in both directions. Anyone who treats whole ways of seeing as parts says to each of them: you are incomplete, you need the others—and devalues it at the very moment he means to honor it. Conversely, anyone who elevates parts to whole ways of seeing turns every clue into a truth of its own—and checking them together becomes impossible.

And there is something else that the story, as it is usually told, passes over: while the scholars are feeling, the elephant does not stand still. The "fan" waves, the "snake" feels back. The reality they are trying to grasp is itself in motion; this makes integration both harder and more important.

An everyday example shows the same principle: at night you hear a noise from the kitchen. What is it? The ear reports a metallic, rhythmic sound. The sense of smell picks up onions. Memory recalls the sound of chopping vegetables. Experience says: "My housemate often cooks at this time." (DE: „Um diese Zeit kocht oft mein Mitbewohner.")

All the senses and experiences work together. The integration succeeds because they all refer to the same event. If your senses reported completely different things—a metallic sound plus the scent of roses plus a memory of a children's birthday party—you would look for the error, not talk about "different perspectives."

This is also how you come to understand a city. At first it is strange and confusing. After a week you know the way to work. After a month, favorite places emerge. After a year you understand the soul of different neighborhoods.

But while you are getting to know the city, it changes: new buildings go up, old ones are torn down, people move away and others arrive, shops close and open, the seasons transform parks and streets.

The "truth about the city" (DE: „Wahrheit über die Stadt") is therefore not a finished picture but a living process. What you can say about it after a year is more than mere opinion, but it is not the last word: the next year corrects some things and preserves most. Your growing knowledge meets a reality that is itself changing. The two together—your developed understanding and the developed city—form the concrete truth.

That the thing itself changes makes knowing harder, but it also opens a way in.

Anyone who takes a street as given sees a street. Anyone who asks why it runs exactly here finds an old river, a city wall that no longer exists, a dispute between two landowners two hundred years ago. The street is the same; what becomes visible in it is something different.

The same holds for almost everything that looks fixed. A word once meant something else. A rule was introduced, against resistance, on an occasion that has been forgotten. A mountain range was once seabed. Something taken for granted was once an innovation people argued about.

For checking, it follows that where something appears fixed, it is fair to ask: since when? And where the answer is a date, what is fixed is something that has come to be—and so something that could also be otherwise.

This does not hold equally everywhere. With a traffic rule, the rule itself has a date; with a law of nature, it is our knowledge of the law that has one. The question "since when?" applies to both, but in different ways.

And it applies to checking itself as well. What this book takes for granted—that reasons count, that contradiction is allowed, that a claim must justify itself—has not always been taken for granted. It was won through struggle, and it can be lost again.

So it is not only the city that changes, and not only the person getting to know it. How far this goes—and that every act of getting to know something is at the same time an intervention—becomes clear once it has been settled what agreement with reality means.

Reliable knowledge arises from integrating different perspectives on the same reality. This is not an adding-up of opinions. The legitimate perspectives are those that refer to the same thing and can be fitted together into a coherent picture. Against anyone who thinks every view is as good as any other, this means: there is a reality that can be known. Against anyone who thinks he sees

it at a single glance: it opens up only through several. The same holds where you act and have to bring different concerns together.

Chapter 6: The Living Whole

Every day you deal with things that are more than the sum of their parts. Nothing mystical or supernatural—quite concrete and everyday.

6.1 The Computer That Is Suddenly "Dead"

Your computer has been running for hours, and then suddenly—a crash. The screen freezes. You move the mouse, press keys. Nothing. All the parts are still there—processor, memory, hard drive, keyboard. Nothing has gone missing or broken. And yet in a certain sense the computer is "dead."

What has happened? The organizing principle has failed. The hardware components can no longer work together in a coordinated way. The software that orchestrates everything has crashed. The living unity of the functioning system has broken apart.

After a restart everything runs again. The same parts, but organized again, alive again. What was gone and is now back? Not a part, but the interplay of the parts. Someone has to trigger the restart, of course; the computer does not restore its interplay on its own. That is why "dead" and "alive" apply to it only figuratively, unlike the elephant, which sustains itself through its own activity (Chapter 6.5).

6.2 The Team That Works—or Doesn't

You know this from group work: the same people can work together brilliantly or fail completely. Sometimes the "chemistry" is right, ideas fly back and forth, everyone complements everyone else, and the result is better than anything one person could have achieved alone.

Another time—perhaps with the same people—nothing works. Misunderstandings, power struggles, everyone thinking only of himself. The result is worse than if each had worked alone.

What makes the difference? The quality of the interplay. The parts (the people) are the same. But the whole—the functioning group—is there one time and absent the next.

You cannot touch or measure this group quality. Yet it is real—sometimes even the most important thing in the whole situation.

6.3 The Melody That Is Not in the Notes

Music makes it even clearer. Your favorite song consists of individual notes—C, D, E, F, G. You can strike these notes one by one on the piano. But the melody is not in the individual notes. It arises only through their interplay—sequence, rhythm, harmonies.

The same notes can make a beautiful melody or a dreadful noise. A child banging randomly on the keys uses the same notes as Mozart. But the order, the structure, the organizing principle makes the difference.

What is more: you can play a melody in different keys, on different instruments, at different tempos. The actual notes change—but the melody remains recognizably the same. What is this melody? Something that is more than the sum of the notes, yet cannot exist without them.

6.4 Your Own Life—More Than Events

Your own life is an example too. It consists of countless individual moments—conversations, experiences, thoughts, decisions. But is your life only the sum of these moments?

When you tell your life story, you do not just tell individual events. You tell how threads run through it, how themes develop, how the child you were became the person you are today. You recognize patterns, developments, a common thread.

This common thread is not in the individual events. It arises from their connection, their development, their coherence of meaning. And yet it is real.

6.5 The Elephant as a Living Whole

The six blind scholars feel different parts. But the living elephant is more than pillar + snake + fan + wall + rope + spear.

While they are feeling, the elephant reacts. Its trunk explores them in return. Its ears follow sounds. Its whole body moves in coordination. When it takes a

step, it is not individual parts moving one after another—the whole elephant takes the step.

This living coordination is what a mechanical listing of the parts misses. A dead elephant would still have legs, a trunk, and ears, but only in name; no trunk feels anymore, no ear follows a sound. Without the life that makes everything one unified whole, even the parts are no longer what they were.

6.6 Emergence—When Something New Arises

There is a name for this phenomenon: emergence. Emergent properties are those that arise only at the level of the whole and belong to no part on its own. They cannot be predicted from the parts alone, though often they can be once one knows how the parts are put together. Whether this succeeds in every case, with consciousness for instance, is disputed. The name explains nothing; it says that something new appears here, and leaves open how.

Life emerges from chemical processes that are not alive individually. Consciousness too is, as far as we can tell, bound to billions of nerve cells, none of which is conscious on its own. Culture emerges from human interactions that individually are not yet culture.

> Experiment 8: Collection or Whole
>
> You do not need the word to check the phenomenon. Compare for yourself: a pile of bricks and a house people live in, a list of words and a sentence that says something. What do you notice?
> If it is a difference that is more than the number of parts, then you have found the living whole this is about.

6.7 The Practical Significance

This insight has consequences for your search for truth. Anyone who wants to understand complex phenomena cannot be content with breaking them down into their individual parts—he must also understand the interplay of the parts. Some things only become visible at all in the whole: a person's personality not in his organs, the meaning of a story not in the number of its words. And because living wholes develop, react, and change, what we have come to know about them is not the last word: it must keep pace with them.

6.8 Back to the Elephant Principle

For the elephant principle, this means: integrating different perspectives is not mechanical addition; it is meant to grasp the living whole, which is more than the sum of the individual observations.

It is not enough for the scholars to collect their reports. They must understand how all the parts fit together into a single living being that acts in a coordinated way and reacts.

For the search for truth, it means: collecting the facts includes asking how they are connected, what patterns they form, and what larger whole they make up.

The whole is more than the sum of its parts. This "more" is nothing mystical; it is the organizing principle that makes a functioning whole out of many elements. Anyone who only breaks things down and collects ends up holding the parts in his hand—and the living bond has escaped him.

Chapter 7: When There Is a Contradiction

Anyone who brings different perspectives together keeps running into contradictions. At first this looks like an obstacle.

Take a straight wooden stick. Hold it in the air—it is straight. Dip it into water—it appears broken. What is true? "The stick is straight" (DE: „Der Stab ist gerade") or "The stick is broken" (DE: „Der Stab ist gebrochen")?

Both statements rest on direct observation. Both are correct in their context. But they contradict each other. We cannot ignore this contradiction—it forces us to think further.

Faced with this contradiction, we have three basic options:

Declare one side false: "The eyes deceive in water" (DE: „Die Augen täuschen im Wasser")—but why should they? And how do we know which side is the right one? This "solution" does not explain; it merely rejects. An observation can, of course, have been made wrongly—seen from a bad angle or measured with a badly adjusted instrument. Whether it was is shown by checking how it came about, not by its contradicting the rest of the picture.

Consider both equally justified: "It depends on the standpoint" (DE: „Es kommt auf den Standpunkt an")—but that gets us no further. We need an explanation, not just the statement that they differ.

Find the unity of the contradictions: develop an overarching explanation that encompasses both observations and shows why they at first appeared contradictory.

The third option leads to the discovery of the refraction of light. This theory explains both the straightness in air and the apparent bend in water. The result is richer than either of the original observations.

This movement of thought has a name: dialectic, from the Greek dialegesthai, to converse. It is not about blurring differences or sophistical wordplay, but about systematically understanding apparent opposites.

The structure has three moments that occur at the same time—this is called sublation:

Preserving: both original observations remain valid. The stick really is straight, and it really does appear broken.

Overcoming: the contradiction dissolves as a problem. We now understand why both are true and how they belong together.

Raising to a higher level: our understanding has grown. We know the overarching principle (refraction) that explains both phenomena and makes new predictions possible.

This "sublation" in the threefold sense describes what happens in learning when a contradiction is resolved.

An everyday example: the mother wants her son to study more. The son wants more free time. At first this seems an unresolvable contradiction—only one of them can get their way.

What does the mother really want? She is worried about her son's future. What does the son really want? He needs room for his development.

The dialectical solution begins by asking why the quarrel arises. The mother measures studying by hours at the desk, the son measures freedom by hours without supervision—both are counting time. If instead both ask what the son wants to be able to do, the measure shifts: someone who learns through a project of his own—on an instrument, with a program, in a team—practices perseverance and independence at the same time. The question of hours settles itself without being divided up, because it is no longer the right question.

As a result, both original concerns are preserved—the worry about the future and the room for development alike—their contradiction is overcome, and the solution explains where it came from: a shared measure that was too narrow.

Not every contradiction resolves in such a way that both sides can stand side by side. Sometimes one side produces the other, like a pathogen that spreads in the body and precisely by doing so triggers the defense that usually destroys it. And some things consist of nothing but the transition between the two sides,

like a motion that cannot be captured either by “is at this place” (DE: „ist an diesem Ort“) or by “is not at this place.” (DE: „ist nicht an diesem Ort“) Even then, thinking seeks the principle from which both sides become intelligible, even if the opposition remains.

Contradictions↑ are not breakdowns on the way to truth—they set thinking in motion. As long as everything runs smoothly, we check in passing, without noticing it, just as you are checking while reading these lines. Only when something does not fit, when our expectations are disappointed, does explicit reflection begin: we pause, we wonder, and we ask how this can be.

Contradictions thus become the engine of knowledge. Dialectic means finding the unity of the contradictions in the overarching principle that explains them. Anyone who stops at the contradictions has two claims; anyone who strikes out one side has lost a piece of information. Anyone who seeks the principle from which both sides become intelligible gets further.

Chapter 8: Everything Must Fit Together—The Living Detective Principle

Many good detective novels have this moment: Hercule Poirot gathers everyone in the drawing room. Miss Marple puts her knitting aside. Sherlock Holmes lights his pipe. Any moment now they will show how it all fits together. Every clue, every observation, every remark, however incidental—everything will find its place. But reality is more complex than any detective novel: it does not stand still while we investigate.

8.1 The Universal Structure of Coherence

What the detective demonstrates in the drawing room turns up elsewhere too: a doctor making a diagnosis must integrate various symptoms, lab results, and details of the medical history into a coherent clinical picture. Every detail must have its place.

The historian gathers various sources, archaeological finds, and contemporary accounts, which must add up to a consistent picture of the past.

The detective principle states: in the end, everything must fit together. No observation may be swept under the rug, no phenomenon left unexplained. Like a puzzle in which every piece has its place—except that this puzzle is alive.

8.2 Saving the Phenomena

Every genuine observation, every phenomenon, every clue contains a share of truth, even if our first interpretations were wrong. Observations are almost never entirely false—they have to be "saved" (put in their proper place). Theories and interpretations can be entirely false; then they are rejected, not integrated.

An example from detective fiction: the butler seemed suspicious because he was nervous. That was a genuine observation. The interpretation "he is the murderer" (DE: „er ist der Mörder") was wrong. The correct explanation: he was afraid of losing his job because he had been drunk on the day of the crime. His nervousness was real and important—but for solving the case, not as a motive for murder.

"Saving the phenomena"—the expression comes from Greek astronomy: sozein ta phainomena, to save the appearances. There it was the name for the task of explaining the motions in the heavens in such a way that no observation is suppressed. It means: every genuine observation must find its place in the explanation. When the heliocentric theory replaced the geocentric one, all the observations still had to be explained—why does it look as if the sun circles the earth? The new theory explains the old observations better.

And saving also means preserving what cannot yet be explained. The good detective does not throw away the clue that fits no interpretation—he puts it on the table where everyone can see it. Knowing what you leave unexplained is part of the explanation; the open items are the points of resistance where the next, better interpretation takes hold.

And then there is the hardest case: the clue that lies. The culprit lays a false trail; the witness deliberately lies because the truth would incriminate him. Here the good detective rejects—but he rejects in a particular way. He strikes out the statement as an account of how the crime happened and saves it as a fact in its own right: that someone lied is itself a clue, often the most valuable of all. The false trail does not show where it points—it shows that someone had an interest in laying it. That is why, for the good detective, rejecting never means throwing away. Even deception is saved as a phenomenon—as the phenomenon it is.

8.3 The Traffic Accident Puzzle

The situation: four witnesses to a traffic accident give completely different accounts. The retiree says: "The red car was going far too fast and rammed the blue one." (DE: „Das rote Auto ist viel zu schnell gefahren und hat das blaue gerammt.") The teenager claims: "The blue car ran the red light and hit the red

one." (DE: „Das blaue Auto ist bei Rot über die Ampel und hat das rote erwischt.") The mother with her child explains: "A dog ran into the street, so both of them braked hard." (DE: „Ein Hund ist auf die Straße gelaufen, deshalb haben beide abrupt gebremst.") The truck driver says: "The traffic light was broken and was only flashing yellow." (DE: „Die Ampel war defekt und blinkte nur gelb.")

Superficial reactions would be skeptical ("They all contradict each other; we can never know what really happened" (DE: „Alle widersprechen sich, wir können nie wissen, was wirklich passiert ist")), authoritarian ("Only the police officer can decide who is right" (DE: „Nur der Polizist kann entscheiden, wer recht hat")), or relativist ("Everyone has their own truth; all versions are equally valid" (DE: „Jeder hat seine Wahrheit, alle Versionen sind gleich gültig")).

Detective analysis goes about it differently. First it takes all the observations seriously. Each statement may contain true elements. None of the witnesses is deliberately lying. Then it asks where each of them was observing from. The retiree was standing off to the side; he judges speed well but is hard of hearing. The teenager has good eyes but was distracted by his phone. The mother is very alert because of her child and notices details. The truck driver has a view from above and is familiar with traffic situations.

Finally it looks for coherence. How could all the statements be partly right? A possible reconstruction: the light was broken (truck driver). A dog ran into the street (mother). The blue car braked hard and did not come to a stop until it was past the stop line. The red car ran into it from behind because it was going too fast for the situation (retiree). The teenager saw the blue car roll over the line; that much is true. The red light he supplied himself, for the light was not showing red, and who hit whom escaped him while he was looking at his phone. No one was entirely right; everyone had seen something right. What is saved is what each of them saw, not what he made of it.

8.4 When Resistance Appears

Sometimes the first integration is not enough. One witness contradicts all the others. An observation does not fit the picture. A clue upsets the neat theory. This is where good detective work parts ways with bad.

Bad detectives ignore inconvenient evidence or twist it to fit. "The witness must be mistaken." (DE: „Der Zeuge muss sich irren.") "That's not important." "It'll fit somehow." (DE: „Das passt schon irgendwie.")

Good detectives take resistance seriously. It indicates that the theory so far is incomplete or wrong, and it forces them to look for an explanation that also accommodates what is inconvenient. Whatever stubbornly resists our expectations points the way to the truth.

8.5 Scientific Revolution as Detective Work

The discovery of the stomach bacterium Helicobacter pylori shows the detective principle at work. For decades it was accepted that stomach ulcers are caused by stress, spicy food, and too much stomach acid. According to the established doctrine, no bacterium could survive for long in the acidic stomach. Anyone who did find some took them for contamination.

Two Australian doctors took the inconvenient finding seriously. The bacteria turned up in almost all ulcer patients and could be grown in culture. One of the two drank a culture and within days developed an inflammation of the stomach lining—not yet an ulcer, but evidence that the germ makes people ill in the stomach. That it also causes ulcers became clear only through treatment: those who were rid of it by antibiotics got ulcers again far less often.

The result was an upheaval in gastroenterology. In the process, the old observations were saved too: stress and acid really can make ulcers worse—it is just that the main cause lies elsewhere.

8.6 Living Coherence

The detective principle is not just a method for crime novels or scientific research. You use it every day when you try to understand what is going on around you. Reading the newspaper, understanding people, solving problems—everywhere you gather evidence and fit it together into a coherent picture.

But this coherence is living, not rigid. New experiences can change the overall picture, inconvenient observations force revision, better theories replace worse ones. This makes the search for truth a dynamic process, not a one-off event.

Here the old saying “The true is the whole” acquires a first meaning: truth lies not in single, isolated statements but in the systematic integration of all aspects into a coherent whole. Every clue has its place in it, as part of the explanation or as an open item kept in plain view. And the whole is living: it is not rigid or closed but goes on developing through new experiences and better integration. If a new clue turns up tomorrow, the picture is not thrown away but extended.

Truth↑ thus arises through systematic coherence: all the clues must fit into the overall picture. This coherence is not arbitrarily constructed; it follows the logic of the matter itself, for the picture must also accommodate the clue that refuses to fit. Anyone who thinks like a good detective treats contradictions as evidence rather than as obstacles, and even in a tangled situation he often finds, through patient work, how things hang together.

Chapter 9: The Different Kinds of Clues

The detective principle has shown us that in the end everything must fit together; every observation must have its place. But what has to fit together is not all of one kind.

9.1 The Wisdom of Unconscious Competence

Imagine an experienced doctor who has been treating patients for thirty years. A young patient comes in complaining of vague symptoms. The lab results are normal, all the tests negative. But the experienced doctor senses: "Something is not right." (DE: „Da stimmt etwas nicht.") He cannot say exactly why—something in the posture, in the sound of the voice, in tiny nuances that he has learned to read over the years.

Is that unscientific? Unreliable?

Not once you see where this sense comes from. It is an unconscious competence, the product of decades of experience. The doctor has seen thousands of patients and recognized countless subtle patterns that are not found in textbooks. His "gut feeling" is condensed experience—highly complex, but not open to conscious analysis.

Unconscious practice is not simply habit. There are levels of competence. The beginner thinks consciously about every step. The competent practitioner applies rules. The expert acts from experience. But the master has developed a form of knowledge that goes beyond conscious rules.

The master pianist no longer thinks about each fingering. His fingers "know" where they belong. The experienced craftsman senses whether the material is lying right. The seasoned mother recognizes from her child's cry what it needs.

This intuitive competence is not the opposite of rationality but one of its forms: knowledge so deeply ingrained through practice that it works without conscious

thought. It, too, can go wrong where the situation differs from the one in which it was trained.

9.2 The Different Qualities of Evidence

The detective faces a complex case and has to assess the most varied kinds of clues. Hard facts—fingerprints, DNA traces, time stamps from surveillance cameras—are difficult to fake but usually tell us only what happened when. The how comes from witnesses, subjectively colored and often contradictory, but rich in connections; the why often only from knowing how people usually behave and what is taken for granted in their surroundings, their time, their community. Lab analyses and measurements are precise but mute until someone interprets them; experiential knowledge interprets quickly and is often remarkably accurate, but in the single case it cannot prove itself, except at most through its track record over many cases.

Each kind is strong where another is blind. That is why the experienced investigator combines them so that they complement and correct one another.

9.3 Everyday Detectives—Your Own Rules of Thumb

You have long been weighing evidence in everyday life without calling it that. With a technical problem you trust the manual more than your feelings. In a quarrel among friends you trust your sense of what is left unsaid more than any self-help book. With your grandmother's recipe you don't ask for a study, because it has worked a hundred times; and with a news item that upsets you, you check whether other sources report the same thing.

Rules of thumb like these are weightings: they say how much each kind of evidence counts in each area. You learned them from hits and misses, and they change when a source you trusted for a long time lets you down.

9.4 The Art of Integration

How do you integrate different kinds of knowledge that "work" in quite different ways?

Experiment 9: Buying a Used Car

Imagine you are buying a used car. Various "clues" go into your decision—for each one, check how much weight you would give it:
The technical inspector checks the engine, brakes, and transmission against objective criteria. His report is precise and factual.
Your experienced friend, who has been repairing cars for decades, listens to the engine and says: "Sounds good." He cannot explain exactly what he is hearing, but his judgment is usually accurate.
The saleswoman tells the car's story—who drove it, how it was treated, why it is being sold. Subjective and driven by her own interests, but rich in context.
Your own intuition on the test drive asks: Does the car feel right? Does it suit you? Hard to make objective, but important for the decision.
Online reviews show how satisfied other people are with this model. Statistically relevant, but not necessarily applicable to your case.
The price compared with similar offers is objectively measurable, but it is influenced by the state of the market and by negotiating skill.
You have to integrate all these different kinds of information into a single decision. No single one is enough—but together they give a picture that is solid enough for an important decision.

Here the finding is a factual question: the clues can be weighted differently from the way suggested, and anyone who does so is right or wrong, as in any factual question. In experiments like the one in the second chapter, the form decided; here the matter itself decides.

9.5 When Sources Contradict Each Other

But what if different clues contradict each other? The inspector says "technically flawless," but your experienced friend is skeptical. The saleswoman raves about how reliable the car is, but online you find complaints about this model.

Here we meet again what Chapter 7 showed with the stick: contradiction does not bring knowledge to a halt; it drives it on. It leads to questions like these:

Which source is most reliable in this particular area? Could both be right but be emphasizing different aspects? Is there additional information that resolves the contradiction? What might I be overlooking?

Often this deeper analysis leads to insights you would never have gained without the contradiction. The apparent conflict becomes a door to better understanding.

9.6 Reflective Detective Work

Rules of thumb have a catch: you follow them without noticing, even where they no longer fit. Suppose that three times you have believed tradespeople who could describe their work convincingly, and three times someone else had to put it right. Anyone who notices this checks, with the fourth, not only the quote but also their own way of checking: Do I let a good story guide me more than findings? Am I mainly looking for what confirms what I already believe? What kind of evidence do I regularly overlook?

This thinking about one's own thinking turns spontaneous judgment into a search for truth that learns from its mistakes.

9.7 Against Two Kinds of One-Sidedness

Anyone who knows the kinds of clues can recognize two kinds of one-sidedness that mirror each other. One is scientism: it accepts only what can be measured and dismisses experience, intuition, and cultural knowledge as noise. In doing so it overlooks what the doctor at the beginning of this chapter saw in his patient's posture. The other is irrationalism: it trusts feeling more than any analysis and overlooks the fact that even condensed experience goes wrong where the situation is new. Both seem to make judging easier, because they set up one kind of evidence as judge over all the others.

By contrast, anyone who knows the reach of each kind can decide responsibly even with incomplete information.

Each kind of clue has its own quality and calls for its own handling. Unconscious competence is not ignorance but condensed experience. Anyone who brings together hard facts, experiential knowledge, cultural context, and intuition so that they check one another is at the mercy neither of the data nor of their own prejudices.

PART II: WHAT AGREEMENT MEANS

Chapter 10: The Comparison That Isn't One—How Coherence and Correspondence Come Together

For nine chapters we have been doing the same thing, in widening circles: checking, from the very first sentence; discovering the presuppositions on which all checking rests; gaining pre-judgments as starting points; fitting perspectives together into the elephant, using contradictions as doors, weighing clues and integrating them like the detective. And all of it happened within our experience. This raises one of the oldest questions in philosophy: is a statement true when it agrees with reality—or when it fits in with our other beliefs? The dispute between "correspondence" and "coherence" is old: one view goes back to antiquity, the other took shape a good hundred years ago as its explicit opponent. Perhaps both sides fail to see an interplay that we have long been practicing.

10.1 The Apparent Dilemma

At first glance, coherence and correspondence seem to contradict each other. The coherence theory says: "A statement is true when it fits in with all our other justified beliefs." (DE: „Eine Aussage ist wahr, wenn sie zu all unseren anderen begründeten Überzeugungen passt.") That sounds reasonable. A new idea has to fit into the whole of our knowledge.

The correspondence theory says: "A statement is true when it corresponds to reality, that is, agrees with it." (DE: „Eine Aussage ist wahr, wenn sie mit der Wirklichkeit korrespondiert, also übereinstimmt.") (Not to be confused with the correspondence principle in physics, according to which a new theory must agree with the old one wherever the old one has proved itself.) That sounds just as reasonable. What use is the finest inner consistency if it has nothing to do with reality?

Both have strong arguments. The coherence theory is at home where checking can only be done in context anyway—in logic and mathematics: a proposition is proved when it can be derived from the first principles of the system. No one

holds a triangle up against the world. From there it generalizes: what can be fitted in is true. This lets it elegantly sidestep the difficulties of comparing with reality—but it only sidesteps them: it leaves unanswered the question of how this agreement is supposed to come about.

The correspondence theory objects: then what still distinguishes truth from a pleasing fantasy? A delusional system can be perfectly coherent—yet it has nothing to do with reality.

10.2 The Learned Separation of Inside and Outside

Both theories presuppose the same distinction: here the mind, there the world. What is true in them becomes clear when we ask where this distinction comes from. It is so self-evident to us that we have forgotten that we once learned it.

The baby first has to build up the boundary between itself and the world—and it builds it up precisely through the resistance it meets: the ball rolls away and does not come back just because the baby wants it to. Hunger is not satisfied the moment it appears. The mother goes away and cannot be wished back. Out of what does not bend to the wish, the distinction arises: out there is something that follows its own laws—and here am I.

This separation is an achievement, and modern people live entirely within it. When you are not sure whether you left the light on, you don't keep thinking about it—you go and look. When someone claims there is a UFO in the garden, you first check whether that fits with everything you know—and unless you dismiss it out of hand, you go out into the garden. One thing is clear here: some things cannot be settled in the mind. You have to look, touch, measure, ask—check the model against the world. That is exactly what is true about the correspondence theory—only it is not a theory but a learned practice of life: all of science, with its experiments, is its cultivated form.

What is learned here is the separation, not the checking. Expecting something, running into something that does not yield, and trying another way: the baby already does this; it is through this checking that it first learns the separation. What builds on it has a history and is not the same everywhere—the methods of science, the weighing of sources that Chapter 19 deals with, and also the explicit rule that you owe the other person reasons. That rule is contained in checking before anyone states it (Chapters 1 and 11.1). What is learned can improve and can be lost again; the checking through which it was learned comes before it.

10.3 Everything We Check With

> Experiment 10: The Comparison You Never Make
>
> Does the "comparison" between thought and reality that the correspondence theory speaks of, and that we seem to carry out when we look and see for ourselves, really take place? Check for yourself: when you say "It is raining," do you compare a thought in your head with rain outside your head?

Normally I am not thinking of rain at all. I sit at the table, hear a drumming on the window sill, see the street gleaming dark—and think: it is raining. Here the thought follows the perception as its conclusion. Only when something raises the question does the direction reverse: someone claims it is raining; I want to go out without a jacket; the drumming could also be the heating. That is a small moment of wonder: that something is perhaps not as we assumed. And now I think it over, or I go and look—mostly both, by turns. The thought is there first, as a claim, a question, an expectation, and it seeks its perception: I look out of the window, open the door and smell the damp air, read the weather report, look at the rain radar, ask whoever is just coming in. That is looking and seeing for oneself.

All of this is mediated in different ways: my own seeing, my own hearing, an instrument, a text, someone else's word. And these paths do not carry equal weight—no one treats them as if they did. If I see the rain myself, the drops on the glass, the splashes on the doorstep, or step outside and get wet, the question is answered; no doubt remains that would need checking. If someone comes in and says it is raining, what he says is checked against what he brings with him: the dripping umbrella, the wet hair, the wet clothes support it; if all that is missing, I grow suspicious—or he has just come from the garage, and then it depends on how reliable he is. The weather report and the rain radar, in turn, are right on the whole and wrong in the details: on some coasts the forecast misses often enough, and what the radar shows in the clouds is not always what arrives below. Weighting the sources where they are not as unambiguous as rain on your own skin takes experience—and the weights depend on circumstances and region.

In one respect, however, all of this is alike: everything you check with enters into your act of cognition—and it is there, too, that this weighting takes place. Only there can you compare, order, understand. This holds far beyond the senses—for memories, reports, books, measurements, statistics, proofs, experiments: they all become reasons only by meeting you and being processed by you. Even what the finest instrument measures becomes a means of cognition only once its reading has been taken, its workings understood, its result placed.

None of this makes any of it merely subjective or unreal. The rain is no less real because you have to see it to recognize it; the measurement is no less objective because someone has to evaluate it. It shows only one thing: we have no place outside all cognition from which we could lay our cognition beside the world. Everything we check truth with meets us within the same practice of truth.

And in everything that meets us there, two moments can be distinguished. Some things impose themselves: the rain falls whether I want it or not; the number on the display is what it is; the witness's report says what it says. And everything is at the same time actively processed: understood, placed, weighted, doubted. No cognition consists of only one of the two—a thought, too, can impose itself, like a melody that will not go away, and seeing, too, can be steered, by gaze, step, and lens. But our whole checking hinges on the difference of which moment leads: if I am not sure whether it is raining, I stop deliberating and go and look—I seek out what imposes itself on me, even if it is only the reading on the barometer or the word of someone who was outside.

Here, too, already lies the simple insight that the old dispute obscures. Correspondence↑ asks about content: does what reaches us match the thing? Coherence↑ asks about form: does what we have cognized fit together with the rest of what we have cognized? But content and form do not meet in two separate places. No content can be had without shaping, no form checks anything without content—both meet in the same enactment, and already here we can foresee that the two theories will need each other.

10.4 The Comparison That Really Takes Place

Does this mean that the comparison with reality is an illusion? That would be the wrong conclusion. What is imagined is only the comparison across the abyss: here the finished thought, there the finished world, and between them a standpoint from which the two could be held side by side—that is the comparison that is no comparison. The real one is more everyday, and it goes on all the time—in both directions. Usually perception comes first, and the thought that grasps it must prove itself against what follows; where the question comes first, the thought seeks its perception: I think "it is raining" and see the drops—it proves itself against what imposes itself. An expectation is fulfilled or fails. A report agrees with a measurement or comes to contradict it. A memory is confirmed by a document—or corrected.

And the means of checking check one another. In the desert there seems to be water on the horizon; I walk toward it, and it recedes—seeing showed something

that walking does not make good. An object seems to stand in front of me; I reach for it, and my hand closes on empty air. The same holds where no eye can reach: no one sees a virus, the early universe, or the population of a country—we work with microscopes, traces, series of measurements, statistics, reports, and there, too, checking consists in relating differently mediated approaches to one another: one method of measurement checks another, a prediction is measured against later results, independent hands repeat the experiment. But the mere agreement of two approaches does not get us far—a dream, too, can deceive several senses, and a delusion can feel complete. Checking becomes rigorous by growing: from changing angles, in repeated action, through others who look independently, through interventions to which the thing responds according to law.

Understood this way, the two old words say something precise. Correspondence does not mean that the thought is a second, mental copy of the thing; it shows itself in the fact that our different approaches are jointly borne out or jointly corrected by the thing. Coherence does not mean that we put thoughts together without contradiction as it suits us; it is the order in which all approaches are given their place and disturbing experience is not suppressed. Without the first, a closed delusion could count as truth; without the second, impressions, measurements, and reports would remain a meaningless heap. Here, what the two theories separated begins to grow together.

How they are connected can be said more precisely if coherence is taken as broadly as it is here: as fitting together not only of thoughts with one another but with everything that meets us, including what imposes itself. In this broad sense, what does not correspond is not coherent either: an idea that experience runs up against no longer fits the rest of what someone knows and assumes—and this break occurs within the same context in which logical breaks occur. Checking for correspondence is therefore not a second procedure beside checking for coherence but its most demanding case: the one in which what resists cannot be removed by rethinking. In the narrow sense, as mere fitting together of thoughts with one another, the correspondence theory is right in its objection: a delusion can be perfectly coherent in itself. What separates it from truth is not that nothing unexpected ever happens to it. The unexpected it builds in afterward. What it lacks is the readiness to accept an answer it could not have given itself. It reinterprets even the resistance that no reinterpreting can remove.

This also defines resistance. It is not the push of a reality out there against a thinking in here, but the sign that a context no longer holds together—and that something must be made coherent that is not yet coherent.

And one more thing happens in this comparing: from it we gain the distinction between inside and outside, instead of presupposing it. Because some things can be steered and others impose themselves, because what is seen and what is touched can come apart, because a wish fails against an impression, even a child draws the line: this belongs to me, that follows its own laws—it reaches and does not get there, it bumps into things, falls, tries again, and gradually tells apart its own body, other people, the world. The separation of mind and world is not the abyss that cognition would first have to bridge; it is a result of experience and remains open to checking within it. What is produced here is not the world—but our knowledge of what belongs to us and what follows its own laws.

10.5 We Check by Acting

The examples in this chapter have something in common that Chapter 3 already showed at the table of your childhood. To expose the illusion on the horizon, I walked toward it; to check the apparent object, I reached for it; to look and see for myself, I opened the door. The means of checking never lay quietly side by side like cards on a table—they came into play through my acting. I want to know whether the wall is hollow—and I knock. Science does the same systematically: it deliberately changes conditions, builds instruments, repeats, predicts, and intervenes. When we act, the thing answers—it fits the expectation or resists it. That the water recedes when I approach, I learn only because I approach.

From this one might conclude: what is true is what proves itself in practice, what works. There is truth in this, and Appendix A shows how much. But it leads astray as soon as acting alone is made the judge—for doing something discloses something only insofar as it is understood. The receding water teaches me “that was an illusion” only when I think the contradiction between seeing and walking. Without this thought, the receding would remain one occurrence among many. Acting without the thought that grasps it would not be cognition but stumbling about—the drunk, too, bumps into things and is bumped by them, and yet cognizes nothing. And conversely, a thinking that never exposed itself to an action, an experience, a possible resistance would remain empty. The two interlock: we act out of an understanding, and we change that understanding in light of the consequences of acting. So “proving itself,” too, means more than merely working: a deception can work for a while, a false theory can predict correctly by chance, an ideology can order a society effectively. What is true is what withstands growing checking—the different approaches, the cross-checks, the consequences.

10.6 The Thing Itself Is More Than Our Present Picture

One question remains, and it decides whether what we have said so far leads into a trap. If everything we check with appears in our act of cognition—do we then have the real world at all, or only ever our pictures of it? Are we sitting in a bubble, with what is real forever behind it?

The question carries a justified warning, and we want to keep it. Our present picture is not necessarily the whole thing; we can overlook things, weight them wrongly, work with an inadequate order. The thought of a beyond is therefore, to begin with, an item in the order: it records that there may be more than we are grasping right now. This reservation need not be in our head as a concept—the child who looks once more carries it out without knowing it. But it is contained in every re-checking: anyone who thought his picture was already the whole thing would have no reason ever to look again, and would be undone by every error. The thought of the beyond only makes explicit what the practice of checking tacitly contains: that the thing could be more than our picture of it.

But we must see what this item covers and what it does not. We know many specific limits: the eye does not resolve what only the microscope shows, and every instrument has its range. Such limits show themselves within experience—in failures, in contradictions, in the success of better means—and what lies beyond them remains an open question, not a second world. The claimed limit of cognition as such is a different matter. If someone wanted to claim that all our cognition is merely our picture and misses the true thing in principle, then, to know this, he would already have to know that thing and compare it with our picture—but then it would not be the unreachable beyond he made it out to be. Whoever claims that there is a total limit, and where it lies, makes a judgment that would have to achieve more than this limit allows—it speaks about both sides of a divide, one side of which it supposedly never reaches. As a limit of cognition in principle, the beyond cancels itself.

The strongest version of the objection, however, does not draw the limit by means of a comparison. It draws it from within: our cognition has forms that it brings with it—that everything appears in space and time, that we ask for causes. Therefore, the objection runs, we cognize things only as they appear in these forms, and the forms themselves do not belong to things as they are in themselves. Beyond that, nothing can be said about things in themselves. The beyond is then not a second object but merely the marking of a limit. Put this way, the objection stands close to the item in the order mentioned above, and to that extent it is justified. But from "the forms come from us" (DE: „die Formen stammen von uns") it does not follow that they are not also the forms of things.

That follows only if the gulf between the two is already presupposed. And some forms that were held to be necessary have turned out to be correctable within experience. That space follows the laws of school geometry was long held to be a condition of all intuition, and physics has shown that the space in which bodies move is built differently where masses are large. Whether this also corrects the form of our intuition is open to dispute. What has been shown is that no one knew in advance how the space of things is built. So the limit is not fixed in advance. It shifts, and its shifting is the correction we are about to discuss.

What the item really covers, we know well: the movement of correction. An expectation fails; an observation does not fit; an overlooked document changes the picture; a later generation discovers the presupposition that the earlier one took for granted and therefore could not see. Only in retrospect does it become visible: here was an error, a gap, a blind spot. An error that in principle could show itself in no way—never, to anyone, in anything—would be indistinguishable from truth; talk of error would lose its meaning.

The error that simply has not shown itself yet does exist—but it is an insight of hindsight, not a category for today: the mistake I will recognize tomorrow I cannot distinguish today from my sound judgments, or I would already have recognized it. The general reservation "I could be mistaken" (DE: „ich könnte mich irren") is therefore no objection to any particular judgment. It applies to every judgment equally and so singles out none.

That a known truth is not the last word belongs to that truth itself: it stands within the truth process, and better orders may come. That alone is no reason to contradict it. There is reason to contradict it where the possible error becomes practical: at the clue that does not fit, at the contradiction, at the open question, at the preserved item where further searching is called for. Then the contradiction is justified, and the known truth that has passed through it is better than the one before. An undiscovered error is no less an error. It is only not yet accessible to us, and until then we work with the best-founded picture we have and keep its open places visible.

The beyond, then, is not a hidden object alongside other objects. It is the name for the thing not yet exhausted—for what in it can sustain further experiences, burst previous orders, make later corrections possible. The thing itself is more than our present picture, but no wall separates the two: its surplus shows itself in the movement by which our picture grows in contact with it—in the resistance on which wishes break, the same resistance on which even the child discovered the world.

So the bubble we stood before is no bubble. We do not stand here in the mind, with the world lying there, out of reach; we always already stand in a cognitive

relation to it. And precisely because the world does not run according to our thinking, it can correct our thinking. Resistance↑ is the bridge between correspondence and coherence: in it the thing makes itself felt within our enactment—in thinking, this signal receives its context.

10.7 Resistance as Signpost

In everyday life this resistance makes itself felt something like this: you are sure you put the key in your jacket pocket. You can convince yourself of it as firmly as you like—the pocket stays empty. Your wishful thinking hits a limit, and this limit shows itself as resistance within your experience.

Or: you work out twelve times thirteen and get a hundred and fifty. You can claim for a while that this is right—but as soon as you check systematically (try different ways of calculating, ask others, use a calculator), the resistance shows itself. Mathematical reality prevails, even if it contradicts your first impulse.

Finally: you are convinced that your car has enough gas. This conviction is coherent with your memories ("I filled up last week" (DE: „Ich habe letzte Woche getankt")) and your plans ("I want to drive to the airport" (DE: „Ich will zum Flughafen fahren")). But on the way the engine dies, and the fuel gauge shows empty. Your coherent convictions hit the limit of a resistant reality, and you have to develop a new coherence that also explains the recalcitrant phenomenon ("I was mistaken" (DE: „Ich habe mich geirrt")—or "The tank has a leak" (DE: „Der Tank hat ein Leck")). Objectivity shows itself where the previous step already pointed: in resistance within experience.

10.8 How Coherence and Correspondence Work Together

We can now say how coherence and correspondence work together. They are not two procedures but one. Coherence demands that all experiences and convictions form a consistent whole; as with the detective at the end of a case, every clue must have its place. Checking for correspondence is its strictest case: even what no reinterpreting can remove must find its place.

Consider Einstein's theory of relativity. It had to explain all the phenomena Newton explained (coherence with previous knowledge), explain an old, recalcitrant observation that Newton's theory had failed to account for for half a century—the rotation of Mercury's orbit (correspondence), fit everything into one elegant theory (systematic coherence), and make new predictions that prove themselves (future correspondence).

That does not make the theory finished. It goes on proving itself against new observations, new experiments, new applications. What it says about space, time, and gravity has withstood so much checking that it may count as known. A more comprehensive theory would not simply discard it but take it up into itself, as the theory of relativity took up Newton's mechanics.

10.9 Why This Insight Is Liberating

This realization frees us from a falsely posed problem. We do not have to make the comparison across the abyss—mind here, world there, and a standpoint in between that does not exist. All we have to do, like the detective, is carefully integrate all the moments of our experience and pay attention to resistance.

The "external world" is not lost in this; it shows itself in resistance. The "inner world" is not sealed off; it is in constant exchange with experiences that resist. Objectivity becomes possible through the integration of all moments of experience, and subjectivity is the place where this integration happens.

It is as in the detective principle: all the clues must be taken into account, they must form a coherent story, and the story must explain what actually happened. In this process of integration, "reality" shows itself as what persistently resists.

This settles one half of the matter: checking and ordering are the same movement, and no bridge needs to be built between them. The other half remains open—namely, what distinguishes one order from another when both stand up to experience. That is the question of articulation itself. Chapter 15 gives part of the answer: the better order saves the phenomena of the other and explains what the other does not. Where both do equally well, the question remains open here.

10.10 The Practical Application

For the search for truth, this means: you do not have to choose between coherence and correspondence. Both work together in a single process.

When you receive a new piece of information, ask yourself: does it fit with what you already know? And, more strictly: does it, or your picture, run up against something that no reinterpretation can remove? The second question is not a different test from the first but the same test when it counts. If a finding does not fit, then before changing anything one must check whether it falls under what it contradicts at all. Whoever denies this must be able to say how he can

tell, without already presupposing his own picture; otherwise he has made that picture proof against any resistance.

When a theory fails against resistant facts, there are three possibilities, which differ in how deep the intervention goes. In a restriction of domain, the theory remains valid, but only in part of the field it claimed, while for the rest a more comprehensive theory takes its place, one that contains it as a limiting case—Newton's mechanics still holds for the speeds and gravitational fields of everyday life, Einstein's theory beyond them as well. In an explanatory revision, the observed phenomena remain valid, but the explanation must be fundamentally revised—combustion is still observed, but it is understood as the uptake of oxygen rather than the release of a substance called phlogiston. In a methodological transformation, finally, the question itself was misguided and must be posed anew—more precisely, it breaks down into questions that can be answered honestly. The astrological question "What do the stars say about my fate?" (DE: „Was sagen die Sterne über mein Schicksal?") becomes the astronomical one, "How do the heavenly bodies move?" (DE: „Wie bewegen sich die Himmelskörper?")—and alongside it the human one, "How do I interpret my life?" (DE: „Wie deute ich mein Leben?"), which is no longer addressed to the sky. None of the new questions inherits the old one entirely: what in it sought knowledge and what in it sought meaning each find a field of their own.

In all cases the point is to explain the phenomena better—to "save" them, as Greek science put it. A theory that explains no phenomena systematically is not a scientific theory but empty talk. But most historical theories explained at least some phenomena—and this partial truth is integrated into better theories, not simply discarded.

When different experiences cannot be fitted together, this is a sign that there is still something to discover here.

This dissolves the old dispute between coherence and correspondence theories: truth is neither mere agreement with facts nor pure construction of thought, but the living process of integrating the two, in which looking and seeing for oneself within experience and fitting together interlock. No one has to choose between "objectivity" and "subjectivity", for whoever checks already connects the two. There is a knowable reality, but it discloses itself only in actually carrying out the search for truth.

This integration, to be sure, does not work with the same material everywhere. The examples in this chapter already hint at it: the rain on one's own skin resists differently from the word of someone who comes in and says it is raining. How far this goes—and what follows from it for the one who checks—the next step will show.

Further reading: *Thinking – Ordering Without Losing* (2025), Ch. 12

Chapter 11: What Pushes Back—and What We Change in the Process

11.1 How Differently Resistance Makes Itself Known

The examples so far were all of one kind. The key is in the pocket or it is not; the calculation is right or it is not; the tank is empty. Resistance↑ makes itself known quickly, unambiguously, and regardless of whether it is understood.

It is not like that everywhere, and the difference is part of the matter.

A stone resists tangibly. It does not rise because someone wants it to; whoever tries anyway feels it in his arms. The feedback comes at once, it is unmistakable, and no one can talk it away. Levitation is reported, but only in anecdotes, never in a way anyone could rely on—and so this report, too, has been checked against resistance.

One's own self resists differently. Whoever wants to learn a language does not hit a wall but a stubbornness: it goes more slowly than expected. Whoever wants to break a habit finds that resolve alone achieves nothing. And whoever thought himself patient discovers at the third repetition that the picture he had of himself was off. This resistance is softer, slower, and easier to overlook—but it is just as real, and it corrects something no scale measures: one's idea of oneself.

Other people resist differently again. As a rule, the expectation that someone will react as we imagined is not quite accurate. A child behaves differently than foreseen, a colleague takes a remark differently than it was meant, an opponent in a quarrel has reasons one would not have credited him with. Here resistance makes itself known not as stubbornness but as surprise—and it corrects not a picture of a thing but a picture of someone.

Other people also resist in a second way, one no stone knows. A stone refutes an expectation, but it demands no answer. A person contradicts: he sets a claim of his own against mine and asks why I think what I think. This resistance is not satisfied by my correcting my expectation. I owe him reasons, as he owes me. That is why checking among people is never only checking on them but always also checking with them.

The stone that does not rise shows that my expectation was wrong; what caused it I must find out myself. The other can tell me what he thinks is wrong, and why. That is not a stronger resistance than the stone's but one of a different

kind: one that gives reasons, reasons I must check myself. For that reason it is not always the better one, either. A trial I set up because I doubt my conjecture can teach me more than an objection that merely says I am wrong. The one who contradicts judges on his own grounds and from a different place; he sees what I cannot see from mine, including about me. What I overlook I cannot tell myself, or I would not have overlooked it; no gaze, however careful, sees its own blind spots. That is why knowing needs another's objection. The answer one could not have given oneself, the answer by which delusion was told apart from truth in Chapter 10.4, often comes from him.

This also holds for the picture I form of him. I always form such a picture, even of the person sitting across from me: from earlier encounters, from his role, from what I know about people in general. What he thinks and means I do not see; I fill it in. This picture is corrected not by his being there but by his answering. So what matters is less closeness than how far someone can answer. A book resists: it says what it says, not what I would like to read. But to every question it says the same thing. A letter answers, only late, and to what I asked days ago. On the telephone or in a chat the answer comes at once, but only through part of what a person shows: the voice, the writing, an image on the screen. The other answers most fully when we meet and see each other: with the word, with the hesitation before it, with the look.

Reading, too, is an encounter, only an unequal one. You can check this on this text: where you have objections, it does not respond to them; if you read the passage again, it says the same thing. And yet its author speaks to everyone and thereby also to you, and you answer him by understanding, contradicting, and perhaps seeing something differently than before. Only your answer does not reach him. That is more than listening and less than a conversation: a one-and-a-half-way understanding. In what one reads, two sides can be distinguished. The way someone found and expressed his thought, his concern, his tone, even what bothers one about him, remains his. By it one recognizes him, and often one recognizes oneself in it: someone who, like oneself, stands in his time and surroundings, has difficulties, loves, and seeks the truth. The thought, by contrast, insofar as it is true, no longer belongs to him alone. Whoever has checked it can work with it, extend it, and pass it on, just as one calculates without knowing who found the rule.

Finally, what exists between people—unwritten rules, expectations, things taken for granted—resists last and is the hardest to grasp. Whoever comes to another country often notices only after months where he was mistaken: not

through any single failure, but because things keep going differently than expected, without anyone saying why. Whoever has absorbed the rules from childhood does not notice them at all—they do not resist him because he follows them anyway.

The series shows no gradient from real to less real. It shows that resistance comes at different speeds, with different clarity, and is more or less easy to pass over. The stone cannot be ignored; one's own impatience can be ignored for years; a foreign culture can be misunderstood for a lifetime without any single failure ever forcing the issue.

It follows that the softer the resistance, the more depends on whether it is noticed and thought about. With the stone, the push is enough. With one's own impatience it is not: whoever takes the third repetition for chance has experienced nothing. What held in the previous chapter for all action—that doing discloses something only insofar as it is understood—becomes practical here: experience that no one gathers together passes by, and the quieter the resistance, the sooner.

That is why the mere quantity of what one has lived through is not yet experience. Whoever does the same thing for thirty years and never checks has not had thirty years of experience but one, thirty times over.

11.2 Whoever Checks, Changes

Resistance makes itself known most clearly to the one who intervenes. Whoever does not touch the stone does not experience its weight; whoever never says a word in the foreign language does not experience its stubbornness; whoever gets involved with no one is not surprised.

This has a reverse side that belongs to the same matter: whoever intervenes in order to check changes things in doing so. This is not a regrettable side effect but the same movement seen from the other side.

And it happens in as many different ways as resistance does.

The stone I lift lies somewhere else afterward. The forest I take wood from is a different forest. That is the tangible form one first thinks of at the word "change."

Whoever learns a language changes himself—not only his knowledge but what he can think and say. Whoever drops a habit is afterward someone with other possibilities. This change is the check: one experiences one's own stubbornness by working on it.

Whoever deals with others changes them too. Every question leaves something with the person asked, every answer with the person asking. Whoever

wants to check how someone thinks must talk with him—and whoever talks with him no longer finds him as he would have been without the conversation.

And whoever takes part in shared circumstances changes them too: through what he does and through what he leaves undone. Here too the change is slowest and least visible—using a word differently and being heard changes what can be said with it in the future.

But what does resistance teach?

Not every resistance teaches equally. When a fist strikes the table, the table holds, but that was to be expected: it confirms what one already knew. Resistance gives us something to learn where something does not fit what was expected or wanted—if the hand went through, if the stone is heavier than it looked, or will not rise however much one wants it to.

This can happen in thinking too. A calculation does not work out. A concept cannot be defined without contradiction, however often one tries. Two statements that both seem true exclude each other.

It is the same process the previous chapter described: a whole no longer holds together. What comes from outside and what arises from thinking itself are not two kinds of checking—both make themselves known as a break in the same whole.

There is a difference nonetheless, only it concerns not the kind but how hard it is to dismiss. Whoever intervenes gets an answer quickly and can hardly fail to hear it, for the thing answers whether that suits him or not. In merely thinking things through, what disturbs can more easily be accommodated—one finds an auxiliary assumption, shifts a boundary, declares the case an exception. Hence the advice to go where something can push back: resistance exists elsewhere too, but there it is hardest to get around.

11.3 Feedback

What is experienced through resistance changes the knower. Changed, the knower sees other things and intervenes differently. The different intervention produces different resistance—and that is the next object of checking. Knowing does not stand outside what it knows.

This text is not exempt either. It does not only describe how one checks; whoever carries out the experiments can check differently afterward. And what it describes can happen along the way: a different reader then comes out of the text than went into it.

11.4 When Resistance Is Removed

Resistance is how the thing makes itself known. Whoever experiences none experiences nothing—not because there is nothing to experience, but because he has held out nothing that could push back.

This can happen without anyone intending it.

The simplest form is one's own selection. Whoever reads what confirms his expectations and puts aside what contradicts them has set up a space in which nothing pushes back anymore. He can go on being right in it for years. It costs nothing, it feels good, and outwardly it cannot be told apart from thorough checking: after all, he has evidence, often a lot of it.

The second form is assigning instead of refuting. Whoever does not check an objection but places it—"that's what those on the other side say" (DE: „das sagen die von der anderen Seite")—has not disposed of the objection but freed himself from it. The difference lies in what is possible afterward: a refutation can turn out to be false; an assignment cannot.

The third form is the arranged one. Where a space is curated from outside, the same thing happens, only not through the individual. For the one reading in it, the difference is not noticeable, and it makes no difference to the matter either. How something like this comes about without anyone deciding it, and how it could be checked, will come up later, when we turn to the measure of what is normal.

In all three cases the effect is the same. That a false opinion persists is the lesser harm, for false opinions come to grief elsewhere. More serious is that the possibility of noticing it disappears. Whoever gets contradiction off his back has not protected his conviction but abolished his ability to learn. He still has convictions, but no checking anymore—and from within he cannot see the difference.

This holds in every direction, and that is the test. It is easy to recognize the mechanism in those whose position one rejects: they see only what suits them, they cut themselves off, they talk only to each other. It is considerably harder to notice it in oneself—for a reason that lies in the matter itself: from inside, a sealed-off space looks exactly like an open one. One has reasons, one has evidence, one has agreement. What is missing is not something one would see.

What can still reveal it is not the content of one's own convictions but a question put to one's own history: when was I last turned around on something that mattered to me? Whoever can name a date has a space in which something pushes back. Whoever cannot has either always been right or has held nothing out for some time.

And from this follows what contradiction is worth. It is not something one must put up with because that is the proper thing to do. It is what anything can be checked against in the first place—and whoever removes it has not bought himself peace but switched off the feedback.

But if a stone resists differently from a motive, and is changed differently—do the same forms of truth then hold for stars and stories, for nature and culture?

Further reading: *Ethics – The Good We Already Do* (2026), Ch. 2 and 3

PART III: CHECKING IN DIFFERENT WAYS

Chapter 12: The Different Domains of Reality

12.1 What Is and Who We Are

> Experiment 11: Two Sentences, Two Checks
>
> Check two sentences for truth. First: “The table is brown.” (DE: „Der Tisch ist braun.“) Second: “Hamlet is a great drama.” (DE: „Hamlet ist ein großes Drama.“) What do you do in each case—what would you check with?
> For the table, a glance is enough, a second one in better light if need be. And for Hamlet? Looking will not help there. You would have to read, compare, experience—perhaps for a lifetime.

Both sentences claim something, and both can be checked—but not in the same way. The word “true” means the same in both. What differs is what one checks with, and what shows whether the judgment holds.

The natural sciences report what is. The humanities speak of who we are and what we create.

12.2 What Is Made and What Is Not

The distinction rests on a difference that can be perceived, similar to the one between inside and outside in Chapter 10.

Nature is what was not created by thinking beings. A physics book tells you how atoms behave, and the experiments come out the same in Tokyo as in Berlin. Laws of nature hold, as far as we can check, equally everywhere, regardless of culture and personal conviction.

What we create ourselves—technology, society, culture—behaves differently. A fairy tale tells you something about courage and cowardice, about how a person

is transformed by trials. It does so not through experiments but by striking something people know in themselves.

And then there is the thinking that distinguishes the two. Where it asks why different domains demand different approaches, it is called philosophy, and that is also the name for what this chapter does.

12.3 How Truth Is Borne Out in Different Ways

As Chapter 11 showed in discussing resistance, reality does not make itself felt in the same way everywhere. Accordingly, statements are borne out in different ways, and in this sense, and only in this sense, one can speak of different forms of truth. They correspond roughly to the kinds of resistance in Chapter 11.1, from the tangible resistance of a stone, through the stubbornness one meets in oneself, to what holds between people; and being contradicted by others who demand reasons accompanies each of these checks.

An empirical statement is borne out by repeatable experiments and by predictions that come true. “Water freezes at 0 °C” (DE: „Wasser gefriert bei 0 °C“) is true if water under normal conditions actually does freeze at this temperature.

An existential statement is borne out in the life one lives. “Love is stronger than hate” (DE: „Liebe ist stärker als Hass“) is borne out when someone who lives by this insight finds from the consequences that it holds up, even where things get hard. That it consoles is not enough. A consolation can help for a while and still deceive. An insight is borne out only when it withstands the experiences that could speak against it.

A cultural tradition is borne out by helping people, over generations, to live together and to cope with their experiences. That is an indication, not yet a proof: even a tradition that invents enemies holds a community together. It counts as true only when it also withstands the experiences that do not fit it, and the consequences it has.

Art has a form of its own. Every depicted world, whether in a novel, a film or a game, must be coherent in itself: if there is magic in it, the magic follows recognizable rules; otherwise readers respond with mockery. A break can also be intended, to upset expectations, but then it conveys something. And form and content must fit each other: a film about confusion may be confusing, but not arbitrarily incomprehensible. But a work of art is called true in yet another sense as well, the one in which we speak of a true friend: when it is what a work of art should be, that is, when it makes visible something that would otherwise remain hidden, or gives shape to a feeling that would otherwise have stayed mute. The

judgment “Hamlet is a great play” (DE: „Hamlet ist ein großes Drama“) is true when the play achieves this, and it is checked by reading, by comparison, and by the experience of many readers over centuries. Great works sustain several interpretations without being reducible to any one of them. Is Hamlet a play about revenge, about hesitation, about the impossibility of acting justly? Hamlet cannot be interpreted any way one likes, but it is inexhaustible. Propaganda allows only one reading, the prescribed one, and kitsch only one, the sentimental one.

12.4 The Category Mistake

Things get difficult when the standard of one domain is applied to the other.

The scientism of Chapter 9.7, which accepts only what can be measured, is known by its consequences: it turns love into a release of hormones, art into neurological reactions and religion into a by-product of evolution. That may explain what happens in the body, but not what the lover, the reader or the believer means.

The opposite mistake is made by those who take an existential or figurative truth as a claim of natural science. “The Earth is our mother” (DE: „Die Erde ist unsere Mutter“) is a sound image of the fact that we live off nature and depend on it. As a claim that the Earth is a conscious being, the sentence is false.

And anyone who declares that every conviction is true in its own way has overlooked that each of these forms has a standard by which one can fail. Then everyone can call their opinion “their truth,” and no conversation gets started any more.

12.5 Distinguishing Without Separating

The different forms contradict one another less often than the dispute between them would suggest. Modern medicine shows how they work together: research shows which treatment has a measurable effect; the practical experience of doctors and patients complements the data; questions of meaning, hope and dignity are part of healing, even though no instrument records them. None of these forms is subordinated to the others, and yet they belong together in one understanding of health. Where they do contradict one another, that is a contradiction like any other and needs to be worked through.

But the domains in which people make something have one thing in common: a text, a law, a painting or an action is not read off like a temperature. One has to understand it in order to check it.

Chapter 13: Understanding What Is Made

13.1 You Interpret All the Time

> Experiment 12: More Than Letters
>
> What are you doing right now with the marks on this page? Are you reading only letters—or are you interpreting them? Are you understanding only words—or grasping meanings? Are you checking only the logic—or do you also sense the tone, the intention, what goes unsaid?
> Probably the latter each time, and without effort.

What you are doing there, interpreting, has a name that already came up in Chapter 4, in connection with learning to read: hermeneutics, from the Greek hermeneuein, to expound, interpret, translate. The Greeks already heard in the word the messenger god Hermes, who translated between gods and humans. Before hermeneutics became a discipline, it was what you do when you interpret a smile, understand a message or put a political speech in context.

13.2 Purpose

What distinguishes something made from a natural thing is conscious purpose. A stone falls by the law of gravity, without intention. A text, a painting, a law, an invention were made in order to accomplish something—and seldom by only one person and for only one purpose: in every tool, every text, every institution lies a history of purposes, conceived by one person, improved by others, handed down over generations. That is why things made can be interpreted: whoever understands them reads the purposes stored in them.

> Experiment 13: The Spontaneous Question of Purpose
>
> What question occurs to you with a text? With an organ? And with a stone?

> With the text “What does the author want?” (DE: „Was will der Autor?“), with the organ “What function does it serve?” (DE: „Welche Funktion erfüllt es?“)—and with the stone neither, at most: where does it come from, what gave it this shape? Probably, without thinking about it, you asked the question of purpose differently each time, or not at all.

With a stone one asks about causes, not purposes. Whether the question of purpose is appropriate is shown by a simple test: can the thing fail? A heart can fail, a tool can break; a falling stone misses nothing. Whose purpose it is shows in who is harmed when it fails. Above the stone, purposiveness rises in stages. In living things, purposiveness appears without conscious purpose: the heart serves the circulation, not because someone intended it to, but because the organism maintains itself. In animals this rises to purposeful activity. The New Caledonian crow that uses a stick to pull larvae out of a tree trunk is pursuing a purpose, and if the stick is too short, it uses it to fetch a longer one. But it does not ask whether its purpose is the right one, and it cannot justify it to anyone. That is what human beings add: they can take their own purposes as an object, check them, order them and pass them on. Texts, laws and works of art arise from this ability. Whoever confuses the stages misses the subject in question—for instance when the purposiveness of living things is interpreted as conscious design, or human intentions as mere natural processes.

13.3 Speaking of Truth in Different Kinds of Text

Because different texts are made for different purposes, one checks different things in them, and one speaks of truth in different ways in their case.

With a report one asks whether things happened as it tells them, and checks this against other witnesses, traces and documents. A law, by contrast, neither tells nor claims anything. One checks whether it fulfills its purpose, whether it is consistent with the other laws and whether it is just, and these judgments about the law are true or false like any others. A judgment about justice, however, is not borne out by a measurement. It is borne out by whether its reasons hold up before all those whom the law affects, and whether it withstands the consequences the law has in their lives. That this standard also reaches law in force is shown by every injustice that was long the law in force and could never be justified to those it affected. With a letter one asks whether the writer means what he writes, that is, about his truthfulness. With a poem one speaks of truth in that other sense in which a friend is a true friend: whether it is what it should be, whether it opens

up something one had not seen before. And with an advertisement one asks first whom it serves, and only then whether what it claims is accurate. Anyone who puts the question of a report to a novel has understood it as little as someone who grants a balance sheet the liberties of a novel.

Anyone who knows only one kind of text takes its question for the only one, like the blind man who takes the trunk for the whole elephant.

13.4 The Questions Without Which One Would Be Blind

Whoever makes something intentionally does so with a material, as someone, in a particular way and for a purpose, and what they make goes on having effects whether they want it to or not. Each of these aspects is a question that understanding asks, and what it is good for becomes clear when it is missing.

Without the wording—the material of the text, its concepts and its structure—every interpretation becomes arbitrary, for nothing holds it in place. Without author and occasion, one reads a dying man's letter like an instruction manual. Whoever overlooks how a work is made—the tradition and the means within which it stands—takes for a personal idea what is a convention of the genre, or the other way round. Without the purpose, the poem becomes a natural thing and the law a trap of literalism. And without the effect, it remains incomprehensible why a text is read differently today than it was then.

Legal scholarship has worked out these questions especially explicitly, because laws cannot be applied without them: laws are interpreted according to their wording, their origin and the intention behind the rule, their connection with other laws, and their purpose. Archaeology shows the same thing from the other side: a stone tool is often well preserved, but what it was made for remains a puzzle, and interpretation becomes uncertain where the purpose can no longer be inferred.

Some schools of literary criticism deliberately bracket the author's intention, arguing that it is inaccessible and that the work says more than its author meant. There is something right in this. But when bracketing becomes a method, it ignores the very thing that distinguishes what is made from natural things. Examining a poem only for its form, without asking what it wants, is like examining a hammer for its weight without grasping its function as a tool.

13.5 Where Reconstruction Is Not Enough

Sometimes something happens in understanding that these questions do not capture. People who read Shakespeare, listen to Bach or look at a painting by Vermeer sometimes suddenly understand something about life that they could not put into words before, and not about Shakespeare, but about themselves.

About Shakespeare's inner life we know little. But his plays give the upheavals of his time—the breaking of old certainties, the new possibilities and fears—a form that concerns us all. Such works can be called world-disclosing: they say more than their author knew and open up possibilities of understanding that did not exist before. Here the objection to the author's intention is justified.

Not every work is like this. An advertising slogan may be cleverly made, but it discloses nothing. The test is whether a work changes how people see the world or confirms the familiar in new packaging. Whoever finds world-disclosure everywhere interprets too much, just as whoever finds it nowhere interprets too little.

13.6 The Whole of a Work

None of these questions alone captures a work. But neither are they laid side by side like items on a list. The purpose of the work decides which question carries the most weight. With a personal letter, what counts above all is who wrote it and on what occasion; with a law and with a great work, the weight lies elsewhere. Understood in this way, "The true is the whole" means here too not collecting everything that can be said about a work, but weighting the questions as befits the work.

Good and bad interpretations can therefore be told apart. A good interpretation is supported by the wording, combines the questions instead of making one of them absolute, and leaves the work richer than it found it. And it reads the unfamiliar in its strongest version: whoever understands an opponent by attributing to him the stupidest possible intention has refuted not him but his own caricature.

Faced with a work of art, however, you do not only ask about material, origin and purpose—you sense whether it moves you. You do not only reconstruct an action; you feel it to be just or unjust. Here a mode of access makes itself felt that none of the questions captures: feeling. Sometimes it carries thoughts that have not yet been put into words; sometimes it signals what no single judgment grasps—whether the whole is right. What is this feeling, and how does it relate to the understanding?

Further reading: *Ethics – The Good We Already Do* (2026), Ch. 6

Chapter 14: When the Heart Thinks and the Head Feels

14.1 The Contradiction That Points to Unity

Your colleague is explaining his position on the current situation. The facts are correct, the argument is sound. Your understanding nods. But at the same time your feeling registers something else: the emphasis on certain words, the brief hesitation, the all-too-smooth presentation. "There's something he isn't saying."

Understanding and feeling assess the same situation differently, and the usual question is: "Should I listen to my head or my heart?" (DE: „Soll ich auf den Kopf hören oder auf das Herz?")—as if they were two worlds at war with each other.

But the fact that feeling and understanding can contradict each other at all shows that they are judging the same thing. Things that have nothing to do with each other cannot quarrel. The blind men contradict one another because they are touching the same elephant; if one were holding a tube of toothpaste and the other a glass of water, there would be nothing to integrate.

There is one difference, though. The understanding can justify its claim: it sets out its steps, and others can check them. Feeling can only state its judgment—"that seems odd to me," (DE: „das kommt mir seltsam vor") "that makes me suspicious" (DE: „da bin ich misstrauisch")—and where it comes from remains inaccessible at first. It makes a claim to truth just as the understanding does, but it cannot make good on it, at least not yet; this was already discussed at the beginning of the book. It does not follow that either of the two takes precedence. What follows is that a contradiction between them is a task, not a decision.

> Experiment 14: Two Examiners at Once
>
> As you read on, pay attention to two voices. While you follow these lines, your understanding checks the logic of the argument. And what is your feeling telling you at the same time: Does this seem sincere? Does the tone fit what is being said? Does it match your experience?

Probably both are running at the same time. An argument that is logically correct but feels wrong then does not fully convince you, and you check it again. Nor does an appeal that speaks to the feelings but is not correct.

14.2 What Feeling Accomplishes and Where It Deceives

Your understanding checks the steps of an argument. Your feeling, unnoticed, pulls together thousands of signals—posture, voice, facial expression, whether what is said and what is shown fit together—like the experienced doctor in Chapter 9; only here you notice it in yourself. It signals "that sounds too good to be true" (DE: „das klingt zu schön, um wahr zu sein") before the understanding has found the hidden contradiction, and "something's wrong here" (DE: „irgendetwas stimmt hier nicht") before anyone can say what. With a theory, it senses whether it is coherent before one has checked its consistency, its scope and its open questions one by one.

The warning feeling, however, works only as long as a deception targets the understanding. For about a hundred years, influence has systematically taken the route through the feelings, with methods that explicitly invoke psychology; since the 1950s at the latest, this has been publicly described and criticized. Advertising and propaganda work with images, stories and stimuli that reach the feelings before the understanding is consulted. The most defenseless are those who, like the mayor in "Zar und Zimmermann," sing: "Oh, I am clever and wise, and no one deceives me!" (DE: „O ich bin klug und weise, und mich betrügt man nicht!") In personal dealings, feeling remains a good examiner of sincerity. Where it is systematically appealed to, it needs the understanding at its side.

Feeling is therefore a finding that calls for clarification, not a judgment that replaces it.

14.3 How the Contradiction Is Resolved

Some fear that the understanding kills what is alive in their experience, that words and concepts distort what is essential. The worry is justified where thinking turns into forcing things into a pattern that sorts everything into either/or. Thinking that separates in order to check and joins together again, that analyzes and feels, is more than either and sublates their opposition; it is called reason.

There are two ways the contradiction gets resolved. Sometimes feeling has noticed something that the understanding passed over; then the contradiction is resolved as soon as that something is found, and in retrospect one sees what the feeling had signaled without being able to say it. Sometimes it is the other way round: the insight is new and correct, but the old habit still speaks up. Then the feeling does not disappear at once, but gradually, as the new knowledge proves sound.

The ancient Persians, so tradition has it, deliberated on their most important affairs twice: once drunk and once sober. Only what held up in both states was carried out. That is how feeling and understanding relate in a successful judgment. If both arrive at the same result independently of each other, that is a strong sign. If they confirm each other only because each relies on the other, it is no sign—a delusion, too, feels coherent. And precisely because agreement is the goal, it must first be possible to voice disagreement: two examiners who are never allowed to contradict each other are in truth only one.

When there is a contradiction, therefore, the first step is not to resolve it but to notice it and endure it. Anyone who establishes agreement too quickly achieves it only by having one side silence the other, and then has not integration but suppression with a clear conscience. If something feels wrong although it seems logically correct, it is worth asking what the analysis might have missed. If a feeling is strong but cannot be justified, it is worth asking what experiences it rests on and whether they still apply.

Reason remains open to what resists order. A feeling that cannot be justified is, for reason, a clue to be followed up; a justification against which everything rebels is one that reason checks again.

PART IV: TRAINING AND DEFENDING THE PRACTICE OF CHECKING

Chapter 15: Science and Paradigm Shifts

15.1 Checking That Checks Itself

What an individual does when checking can be shared, taught, and turned into a method. You search for truth every day. When the car makes strange noises, when the child has a fever, when the plant wilts, you ask: What is wrong? Why? What can I do? At its core, science does the same thing, only explicitly, methodically, and together. It also asks how problems can be solved better in the first place: Which methods lead to more reliable results? How can errors be uncovered before they do harm? It applies checking to itself, just as one calculates and then reflects on calculating.

A farmer has observed for generations that rain usually follows this wind. The meteorologist asks why. He measures air pressure, temperature, and humidity, builds models, and can forecast where the farmer guesses. In doing so he does not refute the farmer. The signs the farmer knows remain valid; science explains what they indicate. What appears remains true as appearance; only what appears in it is newly understood. What science finds in this way—atoms, genes, fields—does not lie behind the appearances. It is what shows itself in them, and whether it is more than their order is for investigation to decide, not for a decision made in advance. In the case of atoms, investigation has decided. Around 1900 no one had seen one, and respected researchers doubted that anything real corresponded to them. Then quite different appearances—the jittering of tiny grains in water, the distribution of particles suspended in a liquid, the blue of the sky—each measured separately, yielded roughly the same number of particles in the same amount of substance. Without the particles, it could not be understood why such different routes lead to the same value.

15.2 What Makes the Method

What sets science apart are the movements of the previous chapters, made explicit and formulated as rules.

It discloses its methods so that anyone can trace how a result was reached, and it demands that others be able to check the justification, against secret doctrines and mere certainties. It brings together different disciplines and approaches, treats findings that do not fit as a spur rather than hiding them, demands that all observations find their place in the theory, and regards every theory as correctable.

In doing so it has given the doubter a fixed place. In everyday life he is often seen as a troublemaker; in science he is part of the procedure. Before anything is published, colleagues in the field look for its weaknesses. What succeeds only once does not count until others have repeated it. In double-blind studies not even the researcher knows who is getting the real treatment, and so one of the richest sources of self-deception is removed: the expectation that sees what it wants to see. This is the resistance of Chapter 11, deliberately built in—a procedure that compels its own correction.

Real science does not always live up to this. There is fraud, vanity, group pressure, dependence on funders, fashions. This refutes the rules no more than a liar refutes honesty. It is only the clear ideal that makes criticism of reality possible. And in the long run the rules prevail, not because scientists are better people, but because the rules are more successful: whoever works openly finds more errors; whoever allows criticism learns faster.

15.3 When the Whole Building Shakes

Sometimes improving a theory is not enough. Sometimes the basic assumptions themselves have to go. Then suddenly everything looks different, not because a detail was overlooked but because the whole way of seeing has shifted. A paradigm is the basic framework of our thinking about a field. It determines what counts as a problem, which solutions come to mind, and what counts as an explanation.

> Experiment 15: The Old Car
>
> Imagine you have an old car. First something squeaks here, then something rattles there. You diligently make repairs—new brakes, new exhaust. At what point do you stop repairing it? How do you recognize that point?

> Not by any single defect but by the accumulation: the repairs cost more than they are worth, and at some point the verdict tips—it is time for a new car.

It is similar in science. The worldview with the Earth at its center predicted the positions of the planets quite well for centuries. But it could explain some things only with assumptions made specially for the purpose: that the planets at times appear to move backward, and that Mercury and Venus never stray far from the sun. Copernicus asked: What if the sun is at the center? Then the additional assumptions become consequences. The backward loop is overtaking on the inside track; Mercury and Venus stay close to the sun because their orbits lie inside the Earth's. At first the new picture was no more accurate in its calculations; that came only two generations later, with elliptical orbits. What it had gained first was coherence.

In such a shift no single inconsistency tips the balance; each one on its own could still be absorbed with an additional assumption. What tips the balance is their number: at some point patching costs more than the fabric can still bear, and a gradual "more" turns into a sudden "different," like water that grows warmer degree by degree and at a certain point begins to boil. The switch itself resembles a reversible image in which you first see a vase and then two faces. But the comparison goes no further: in the reversible image both views are equally good, and you can switch back at will. In a paradigm shift the new explains the old as well, but not the other way around.

Many people know this from their own lives: the career that was fulfilling for years, until it was no longer just particular aspects that bothered them but the whole direction that no longer felt right. Such changes are often painful because people invest their identity in their view of things. In science there is the added fact that training, professorships, and journals are geared to the old framework. Max Planck, who himself set off an upheaval in physics, wrote looking back: "A new scientific truth does not usually prevail in such a way that its opponents are convinced and declare themselves instructed, but rather in that the opponents gradually die out and that the rising generation is familiarized with the truth from the outset." That is put sharply; often enough researchers have allowed themselves to be convinced. But it names what is part of an upheaval: people who have put their life's work into the old framework. That the continents drift was proposed in 1912 and for almost fifty years was considered far-fetched, partly for a good reason: no one could say what force moved them. The observations that supported it still stood all the same, and when the force was found, they fell into place in the new picture.

> DE: „Eine neue wissenschaftliche Wahrheit pflegt sich nicht in der Weise durchzusetzen, daß ihre Gegner überzeugt werden und sich als belehrt erklären, sondern vielmehr dadurch, daß die Gegner allmählich aussterben und daß die heranwachsende Generation von vornherein mit der Wahrheit vertraut gemacht ist."

15.4 Reasonable Even in Upheaval

Chapter 10.10 distinguished how deep a revision can go: from restricting a theory to a domain, as with Newton's mechanics, which continues to hold within the theory of relativity as a limiting case to a very good approximation, to the question that itself has to be posed anew. One speaks of a paradigm shift where what is affected is not only a theory's scope but its basic concepts. The transition to the theory of relativity was such a shift too: space and time came to be thought of differently, even though Newton's equations continue to hold as a limiting case. Quantum mechanics goes deeper still: for the atomic domain it replaces basic concepts such as the definite path of a particle with new ones, while those concepts remain valid for large bodies.

A strong conclusion has been drawn from this: different paradigms, it is claimed, are so fundamentally different that they cannot be rationally compared, because each one determines what counts as observation, problem, and solution; science would then ultimately be a matter of power or chance. The strongest version of this objection does not deny that there are standards. It says: accuracy, consistency, scope, simplicity, and fruitfulness do not force the choice between two theories, because everyone weights them differently. For the moment of choice, that is true. In the long run, however, the subject matter itself has a say in how they are weighted. Two paradigms may be hard to compare in their concepts, but they can be compared on the phenomena, and that is where the decision is made. (The term paradigm shift, and this objection, were made popular by Thomas Kuhn, who himself rejected the relativist conclusion drawn from his own thesis.)

That is why even the most radical shift is subject to the rule we met with the detective principle: the phenomena must be saved. The new must be able to explain what the old explained, and also what it could not explain. This need not succeed from day one—the sun-centered model was at first no more accurate in its calculations than the old one—but in the long run the new must be measured by this test. In a broader sense, therefore, every paradigm shift is a sublation, even a radical one: it preserves the phenomena, overcomes the limits of the old,

and raises understanding to a new level. Scientific revolutions are not exceptions to the rules of science but their real test.

A great upheaval in one's own thinking is therefore not a farewell to reason either, as long as it is measured by this test.

Further reading: *Thinking – Ordering Without Losing* (2025), Ch. 12

Chapter 16: Why Checking Sets You Free

> Experiment 16: Night Drive Without a Map
>
> Imagine you are driving at night through an unfamiliar city, without a map. Every turn is a puzzle; every street could end in a dead end. Then you recognize the river, and over there the TV tower, and the city falls into place in your head. You know where you are and how to get where you are going. What has changed? Nothing about the city.

Understanding sets you free, and not only on streets at night. What science has developed into a method frees whoever practices it. That is precisely why it is imitated, inverted, and obstructed.

16.1 What Understanding Makes Possible

Anyone who understands the grammar of a language can speak more freely than someone who only repeats sentences learned by heart. Anyone who knows the laws of airflow can build airplanes; the bird does not defy gravity, it uses the air. Anyone who sees through their own patterns can begin to change them, while someone who does not know them repeats them without noticing. Understanding opens up possibilities that were not there before.

Freedom, therefore, is not arbitrariness. Arbitrariness cannot foresee its own consequences and so falls under the rule of what it does not understand. Someone who, out of defiance, lives against all medical advice thinks he is free, and is overtaken by illnesses he neither understands nor controls. The old formula that freedom is insight into necessity tells only half the story. Whoever knows the laws can use them for his purposes; insight does not tell him whether these purposes are his own or whether they are reasonable. A con man who knows his victims' weaknesses precisely has a great deal of insight into necessities and is not free for all that.

Nor does having correct information set you free by itself. Knowledge↑ can be hoarded, rationed, and used as an instrument of domination; whoever knows more than you can steer you with it. What sets a person free is not what he knows but what he can check.

16.2 Checking Together

That is why the search for truth is never a matter for the individual alone. Where people check together, the best reason counts, not the loudest voice, and in a good scientific discussion the student is the professor's equal if his argument is better. This also removes a burden: whoever checks within a shared process does not have to know everything alone. Education, science, free media, independent courts, and public debate are forms of this process and therefore conditions of freedom, as long as they themselves remain open to checking. But checking does not become shared simply because many people take part. Distributed knowledge has to come together, and that requires procedures in which dissenting voices are not filtered out, uncertainties remain visible, and errors can be corrected afterward; where such procedures are missing, the shared result falls short of what the individuals know.

16.3 Those Who Deceive Must Obstruct Checking

Conversely, anyone who builds his power on deception must obstruct checking. Open discussion calls dogmas into question, different perspectives expose the one-sidedness of official accounts, and whoever pursues contradictions comes upon those of the system. This is not a moral accusation. It follows from the matter itself: a power that rests on deception cannot, in the long run, tolerate free checking alongside it.

The open opponents of checking forbid it, and that is how you recognize them. Harder to recognize are those who invoke checking. Someone who speaks in the name of truth can obstruct checking without forbidding it, and often without noticing it himself, by inverting the principles he invokes. And someone who wants to exploit the trust that checking enjoys can falsify its foundation, the sentence "You are already doing this." (DE: „Sie tun das bereits") Both work with the means of checking. You can recognize this only by looking closely at what is done with these means.

Chapter 17: When Checking Is Obstructed in the Name of Truth

You are talking with someone who uses all the right words: different perspectives, evidence, science, enlightenment. And yet something is off. The words are there; the checking is not. The principles of this book can be turned against checking, and precisely because they are valid: whoever invokes them gets a hearing. This misuse is hardest to recognize where it comes from people who believe they are defending the truth.

17.1 Camp Thinking

> Experiment 17: Automatic Sorting
>
> Notice whether you automatically sort as you read: Which "camp" is this aimed at? Am I the one meant, or the others?
> The sorting itself is not yet camp thinking; asking which way a text is aimed is part of checking. It becomes camp thinking where the answer to "Who is meant?" replaces the checking. If you do not notice the sorting, try it on a text that contradicts your opinion—there it is easier to spot.

The Inquisition wanted to protect the true faith and persecuted those of other faiths. Revolutionary movements wanted to create justice and branded critics as enemies of progress. Those who defend freedom easily see dissenters as a threat to freedom. In each of these cases a claim is sorted by the side it comes from, not by its reasons. Whatever helps one's own camp is believed more readily, whatever harms it is checked more strictly, and anyone who disagrees is assigned to the other side. This comes at a cost to whoever thinks this way: it demands constant vigilance against defectors, prevents real conversation, and cuts him off from everyone on the other side. The pattern is the same everywhere; the means are not. The Inquisition had people burned; a scholarly community withholds positions and funding. Whoever equates the two misses the point; whoever recognizes the pattern only at the stake misses it as well.

Even science, whose business is checking, has its camp thinking. For decades it was considered established that America had first been settled by the people of the Clovis culture, about thirteen thousand years ago. Anyone who presented older sites had to expect to be accused of sloppy work rather than have his finds checked, until in 1997 a site in Chile won general acceptance after a joint visit by specialists from both sides. Over the extinction of the dinosaurs, a dispute

was fought for decades after 1980 with a sharpness that went far beyond the matter at hand. Whether an impact from space tipped the balance or enormous volcanic eruptions did was at times treated as a question of which side one belonged to. Representatives of one side publicly declared those on the other to be bad scientists, and anyone who deviated had to fear for his career; younger researchers steered clear of the topic. Most specialists today see the impact as the main cause; according to precise dating, impact and extinction practically coincide. Whether, and to what extent, the volcanic eruptions had already weakened living things beforehand is still being investigated, including with model calculations that credit volcanism with more than was long accepted. That the investigation continues is owed in part to those who refused to be dissuaded. The only thing settled is that this is not how checking is done. Such findings are no more an objection to science than the fraud and fashions Chapter 15 spoke of. They measure real science against its own idea, and only this idea makes visible what went wrong.

17.2 In the Name of the Good

It becomes dangerous where people see themselves as defenders of the good. This happens among believers and unbelievers, among revolutionaries and those who defend the existing order, among specialists and their critics. The progression is similar each time. “We are the good ones” (DE: „Wir sind die Guten“) leads to “Our cause is so important,” (DE: „Unsere Sache ist so wichtig“) then to “The normal rules do not apply to us,” (DE: „Für uns gelten die normalen Regeln nicht“) finally to “Whoever criticizes us is evil or deluded.” (DE: „Wer uns kritisiert, ist böse oder verblendet“) Whoever sees himself as a fighter for the good thereby shields himself against his own criticism. The good intention becomes a license for bad methods, and the truth that is to be defended becomes a reason to stop asking about it.

One form of this is selective empathy, which is outraged only by the suffering that supports one’s own position. Some mourn the victims of one war and overlook those of another; some are outraged by censorship on the opponent’s side and overlook it among allies. This empathy feels humane, and yet it uses suffering for a purpose.

Check this in yourself: For which of your convictions would you become annoyed if someone demanded evidence? For which suffering do you spontaneously feel compassion, and for which not, and does that have to do with your political position? Which opinions cannot be voiced in your circles without the

speaker being shunned? Whom do you consider deluded or dangerous without knowing their reasons? Imputing bad intentions does its own damage; the witch hunts are the clearest example, the blanket suspicion of ideology an everyday one. Some people, admittedly, really do pursue destructive aims. That can be recognized from their actions, not in advance from their opinions.

17.3 Inverted Principles

The principles of this book can also be turned into their opposite, and always by a single pattern: a strength is made absolute. The elephant principle becomes "Everyone has his own truth." (DE: „Jeder hat seine Wahrheit") That sounds tolerant, yet it gives up the very point, for the blind scholars are feeling the same elephant, and their reports complement each other only because they refer to the same reality. Dialectic becomes the lazy compromise that takes half from each side instead of looking for the principle that explains both. Self-reference becomes self-certainty: we have thought things through, the others have not. Bringing perspectives together takes in only those that confirm, and the connection the detective is looking for becomes a template into which everything that turns up must fit. Skepticism becomes cynicism, which doubts everything except its own doubt, and openness to many paths becomes arbitrariness. The same happens to empathy when it takes the place of checking: whoever suffers is right, and so is whoever speaks for those who suffer.

The danger does not come from outside. It is the reverse side of exactly what makes the strength strong, and so abolishing the strength does not help; along with the danger, one would lose the power. What helps is applying the strength to itself. Skepticism must also be allowed to doubt its own doubt, dialectic must also check its own solution, and empathy must also extend to the other side. A strength that refuses to apply itself to itself has already overstepped its limit.

17.4 How to Recognize Inverted Checking

Inverted checking creates coherence by leaving out whatever resists. Every criticism is read in a way that confirms one's own view: "That only proves how perfect the conspiracy is," (DE: „Das beweist nur, wie perfekt die Verschwörung ist") or: "That only shows how manipulated the critics are." (DE: „Das zeigt nur, wie manipuliert die Kritiker sind") What is merely conceivable is passed off as fact. Public checkability gives way to knowledge for the initiated. And criticism is not checked on its merits but fended off by disparaging the person.

Labels, too, become weapons. In the fall of 2020, three epidemiologists proposed in a public declaration that during the pandemic the vulnerable be protected in a targeted way and everyone else be restricted less. In an internal message, the director of the American health research agency called them “fringe epidemiologists” and wrote that there needed to be “a quick and devastating published take down of its premises.” Whether the proposal was good is a separate question; many experts thought it wrong and had their reasons. But whoever orders a refutation before anything has been checked is ordering a result. On the other side, every finding that told against the measures was quickly taken as suppressed truth, and every one that spoke in their favor as bought. “Conspiracy theory,” “disinformation,” and “propaganda” often serve to dismiss uncomfortable questions without answering them; “system media” and “bought science” serve the other side for the same purpose. Both see the speck in the other’s eye and not the beam in their own.

There is such a thing as ordered doubt. The tobacco industry manufactured it systematically for decades (Chapter 18.4), and on climate, companies have paid for doubt that the state of research did not support. Where this is known, all doubt easily falls under suspicion, including justified doubt; on climate there are questions that are rightly open, such as how strongly it responds to further greenhouse gases and what each measure costs and achieves. If justified doubt is dismissed along with bought doubt, the debate becomes narrower than the subject requires. Usually this happens not out of ill will but for good reasons that take on a life of their own. The label does not decide which side is right. Both may have seen something, and both may stop checking. What matters is how the checking is done.

17.5 True Inside, False Outside

An objection suggests itself. There are organizations that check in exemplary fashion internally and systematically deceive the outside world. The analysis divisions of intelligence services check their sources by strict, carefully worked-out procedures, while the same services spread cover stories. The tobacco companies knew from their own research that their product was harmful, and publicly denied it for decades. Is truth, then, a tool after all, to be picked up or put down depending on whom one is addressing?

The separation is not watertight. Deceiving the outside world requires a justification inside, and the only one that holds up in the long run is: we may deceive because we are the good ones. With that, people inside the organization are

sorted into camps, and this does not stop at one's own analysis. Moreover, whoever has to deceive has to manage the deception, and over time those who get promoted are the ones who do this smoothly, that is, the ones who least contradict the organization's own account. And finally, whoever practices every day rationing the truth by audience ends up checking even his own assumptions by their usefulness. That Iraq still possessed weapons of mass destruction in 2002/03 was regarded in the services as so certain that the assumption was no longer questioned; that, at least, was the judgment of the British inquiry report of 2016. The report does not establish whether the blindness there came from the habit of rationing the truth for outsiders. It shows how an assumption becomes uncheckable as soon as one needs it. Such systems do not go blind at once, but they reliably grow blinder. This would be refuted if organizations were found that deceive the outside world for decades without their assessments of the situation becoming worse than those of open counterparts.

States and alliances of every camp practice their own version of deceiving the outside world. Whoever recognizes it only in the opponent is demonstrating exactly what is at issue here.

17.6 When the State Steers Checking

What becomes visible in an organization holds for a state as a whole. A state that sets up an office to determine what is to count as true does not thereby protect its citizens from deception. It takes from them, and from itself, the means of noticing it: what the office proclaims, no one checks any longer, not even the one who proclaims it. Such a state begins to believe its own account and learns less well than one in which contradiction is permitted. It needs no evil intentions for this; the same justification as in the services is enough. In the GDR, a department of the state party's Central Committee told the newspapers every day what to report on and how, and every book needed a printing permit.

The words used to restrict checking are much the same in every system: "dangerous opinions," "disinformation," "foreign influence." Authoritarian and free states both use them, with very different means. And the danger they invoke is not invented. Since 2003 the Chinese army has counted the steering of public opinion among its "three warfares," alongside psychological and legal warfare. Russian doctrines speak of an information struggle that does not rest even in peacetime. That dictatorships proceed this way is hardly surprising.

But free alliances, too, now describe the population's perception as a field to be fought over and defended. A 2020 study for NATO's Transformation Command,

which by its own account does not represent the alliance's position, calls this "cognitive warfare" and proposes treating the human mind as a domain of its own alongside land, sea, air, space, and cyberspace. According to the texts from this milieu, it includes protecting one's own minds and penetrating those of the opponent, and the field encompasses friend and foe; a 2022 contribution explicitly links cognitive warfare with the pandemic. A critic who has collected these texts reads them as a program that is also directed against one's own population. The texts themselves do not go that far; but they do show from what perspective public opinion is viewed there. The resilience commitment that the allied states made in 2021 counts "hostile information activities including disinformation" (DE: „feindliche Informationsaktivitäten einschließlich Desinformation") among the threats and names the pandemic as a test case; resilience itself remains, in that document, "a national responsibility." What is intended as defense can endanger the freedoms in whose name it is carried out. What is being defended here is not territory but what people hold to be true.

No evil will needs to lie behind this. An army sees things from the perspective of security; that is its job. In calm times this is one perspective among many, and politics, which weighs them all against one another, stands above it. But if a threat counts as existential, the logic of security can gain a weight it does not otherwise have, and then even the opinions of one's own citizens appear as something that must be observed and steered. In the Netherlands in 2020, an experimental army unit analyzed what citizens were writing about the corona crisis in open sources, including social media, until a newspaper reported it and the minister had the work suspended for the time being and its legal basis examined. In Germany, a major general headed the crisis staff that the federal government set up for the pandemic in December 2021, chiefly for the vaccination campaign, whose logistics called for military skill. One need neither play down such events nor piece them together into a plan. It is enough to read institutions as they usually work: whoever has learned to sort situations by threat sorts these the same way.

Further reading: *Ethics – The Good We Already Do* (2026), Ch. 15.9 (why an order that hears, examines and acts on justified criticism needs no resistance)

17.7 Steering in the Pandemic

Steering needs no office. European bodies have documented that during the pandemic there were also targeted false reports from foreign states; the defense against them had a real target. At the same time, authorities in several countries kept notifying platforms of posts they considered false information, and the

platforms often followed their lead. From February 2021, one large platform deleted posts stating that the virus was man-made, and it lifted the rule in May of the same year, when the question of the origin was officially reopened for investigation; it remains unanswered to this day. The steering became visible in detail through court records and, above all, when the internal documents of a network were published after a change of ownership. The head of another large corporation later wrote to a parliamentary committee that his company had been pressured for months; he said he regretted not having pushed back more openly. How far the notifications amounted to pressure is disputed; that they existed is not, and in the European Union a law now governs whose reports of allegedly illegal content platforms must handle with priority. With governments one considers hostile, one takes such steering for granted. The test is whether one perceives it just as readily in one's own. The test also works the other way: that a post was removed does not make it true, and many of those removed were false. What removal destroys is the possibility of checking it.

Steering also worked through emotion, along the path described in Chapter 14.2. In Britain, in March 2020, an advisory group to the government recommended in writing that the sense of personal threat among the complacent be increased through hard-hitting emotional messaging. In Germany, in the same month, scientists acting at the suggestion of the interior ministry wrote an internal paper that advised depicting the consequences of unchecked spread in drastic terms, "in order to achieve the desired shock effect" (DE: „um die gewünschte Schockwirkung zu erzielen"): seriously ill people turned away at the hospital and dying "agonizingly gasping for air at home," (DE: „qualvoll um Luft ringend zu Hause") children who feel guilty because they infected their parents. The group had been set up by a state secretary of the ministry together with the head of the unit for "Political Orders and Hybrid Threats." (DE: „Politische Ordnungen und hybride Bedrohungen")

Two years later, one of those involved described in a sociological journal how the paper came about: in ten days, in encrypted conference calls of which no minutes exist, though there are papers and email exchanges that the Robert Koch Institute was later obliged to release, and under the impact of the images from Bergamo. They had known, he writes, "little about transmission mechanisms" and "nothing at all about the consequences of a far-reaching shutdown of public life." (DE: „überhaupt nichts über die Folgen einer weitgehenden Stillstellung des öffentlichen Lebens") To make exponential growth comprehensible to the decision-makers, they calculated that if nothing were done there would be a million deaths in Germany alone in 2020, explicitly as a scenario and not as a forecast. In his words, the task also included the "coining of rhetorical formulas

for justifying the decisions taken," (DE: „Prägung rhetorischer Formeln für die Begründung der getroffenen Entscheidungen") and he sums it up like this: "To speak with Gramsci: the point was to impose constraints and win consent while keeping interpretive sovereignty in hand." (DE: „Mit Gramsci gesprochen: Es ging darum, Zwänge zu verordnen und Zustimmung zu gewinnen und dabei die Deutungshoheit in der Hand zu behalten.") Four years later, according to press reports, he said at a panel discussion that they had had to produce "willingness to comply." This is not an accusation from outside. It is the account of a participant who gave advice under great uncertainty and great time pressure and who himself saw that such an intervention in the behavior of individuals "requires strong justifications." Precisely for that reason it shows how, in a situation regarded as existential, the question of what is true is joined by the question of how to win consent and keep control of the interpretation.

17.8 Defending Itself Without Tipping Over

Does that mean every position has to be treated the same everywhere when a state defends itself against deception? No. All claims about the world must remain checkable and refutable, even the most absurd. These in particular are owed refutation, not taboo, for a taboo keeps their falsity from becoming visible and turns their proponents into martyrs. Checking itself, which is what makes any refutation possible in the first place, is not such a claim; Chapter 18.3 shows why it cannot be refuted and yet hides nothing. How much room a position gets, by contrast, may depend on the setting. In a seminar, engaging with all positions is part of understanding; in public debate, the question arises of whom one gives which platform; and a democracy may defend itself against forces that seek to destroy the conditions of free checking, including foreign interference. This last stage is the most dangerous, because it takes the form of "We are the good ones" (DE: „Wir sind die Guten"): our cause justifies harsher rules. The only thing that distinguishes it from abuse is that it protects the conditions of the search for truth rather than particular contents or camps, and that it itself remains open to public criticism. A capacity for self-defense that can no longer be criticized has already tipped over. Every dictatorship has invoked the protection of sacred goods.

The same holds for lies. One should not lie: whoever lies lays claim to the other's trust and breaks it in the same stroke. Free legal systems, however, generally punish a lie only where it causes a specific harm, as defamation, fraud, or perjury. This distinction does not protect the lie; it protects the space in which

it first becomes possible to establish what is a lie. Whoever declares a position false without proof, argument, and open discussion leaves this space, even if he is right on the substance.

17.9 Mature Citizens Instead of Ministries of Truth

No one operates in a space free of power here. But the answer to the abuse of power is not more power in the form of ministries of truth, but more search for truth in the form of mature citizens. Fear can be very effective at bringing people round to a stance, but it is a poor counselor: it fixes the gaze on what threatens and lets everything else fade into the background. Whoever steers citizens with fear, censors, or restricts their information reverses the relationship on which a democracy rests. In a democracy, the population commissions and controls the government, not the other way round, and for this it needs freedom of opinion, of science, and of the press. The analysis in this chapter does not show which side is right. It shows how checking is done, and it strikes every side that stops checking, including one's own: conservatives and progressives, believers and atheists, critics and defenders of the existing order. No moral superiority helps against this, only vigilance in method.

Whoever obstructs checking in the name of truth inverts the principles, often without knowing it. But it can also be done more deliberately and at a deeper level: one can falsify the foundation on which checking stands.

Further reading: *Thinking – Ordering Without Losing* (2025), Ch. 13

Chapter 18: When the Method Itself Is Falsified

18.1 Falsifying the Foundation

> Experiment 18: Your Vigilance
>
> Are you checking right now whether this text is manipulating you?
> If so, this vigilance is already a first protection against what we now turn to.

The performative self-grounding from Chapter 1 is the one starting point that remains when nothing can be presupposed: thinking checks itself, and the truth of this enactment lies in the fact that everyone can enact and check it for himself. Precisely for that reason it is open to attack. Whoever says "You are already doing this" (DE: „Sie tun das bereits“) gets past the defenses that stand ready

against other people's claims. The enactment is falsified when it no longer serves checking but a goal fixed in advance: selling, gaining followers, self-confirmation. If this beginning is falsified, everything that follows hangs on a poisoned point. That is why the strictest standard in the whole book is needed here.

The intention of the one who speaks cannot be seen from outside. But the text shows what a sentence does for checking. A sentence that carries checking forward leaves traces: something becomes visible that was not visible before, something that stood unconnected fits together, an objection turns out to have been worked in rather than passed over, and sometimes one is turned around instead of confirmed. A sentence that aims at a result arrives where it meant to go; no next step is provided for, and the objection one had does not appear in it. In honest speech, the process serves the one who checks and the one who speaks at the same time. Where the two part ways, this shows in the fact that checking is supposed to stop exactly where it would become uncomfortable. The same holds for this text. It has an interest in being followed.

18.2 How the Counterfeit Works

The counterfeit begins with something that is really there: your impulse to check, your unease, your longing for meaning. "Surely you feel it too: something has to change." (DE: „Sie spüren doch auch, dass sich etwas ändern muss.") And that is true, and precisely because the first sentence is true, everything that follows feels evident. The counterfeit does not lie at the start; it needs the truth to get its foot in the door. In this it is related to the deception that works with nothing but true statements, which Chapter 19 examines: the truth becomes the vehicle of the deception.

Then it swaps invitation for assertion. The genuine method invites: check for yourself whether it is so. The counterfeit asserts the result: surely you feel that it is so. The difference is small in wording and fundamental in substance. In the first case you carry out a check whose outcome is open; in the second you are talked into a perception that you take for your own. The presentation fixes how you see and lets you believe you saw for yourself. That things could turn out otherwise has no place in the counterfeit: it is not denied, it is simply not there, and an absence is noticed only by someone who looks for it.

Then what is your own, the thing the opening touched, is steered toward a ready-made goal: "You are already checking" becomes "so you need this product," (DE: „also brauchen Sie dieses Produkt") "You are already thinking critically" (DE: „Sie denken bereits kritisch") becomes "so choose this solution," (DE: „also

wählen Sie diese Lösung“) “You are already searching for meaning” (DE: „Sie suchen bereits nach Sinn“) becomes “so follow this teaching.” (DE: „also folgen Sie dieser Lehre“) What began as something you were doing ends as someone else’s program. Finally, the experience it has called up is declared the proof: “But you experienced it yourself.” (DE: „Sie haben es doch selbst erlebt.“) Anyone who doubts now seems to betray their own experience, and the counterfeit has settled in where criticism looks like denying yourself.

18.3 How to Recognize the Counterfeit

This way of working gives rise to tests that you can apply to any performative offer, including this book.

The negatability test asks whether your check is allowed to turn out otherwise. Statements about an experience can fail: whether you feel calm right now can also turn out otherwise. Offers built so that no possible experience could refute them are therefore a warning sign - with one exception: checking itself.

The direction test asks whether the process makes you more independent or more dependent. Afterwards, can you check better on your own, or do you need the guidance more than ever? A genuine performative method works toward making itself unnecessary.

There are also smaller tests that follow from the same way of working: whether it is ever mentioned that one could see things differently, or whether you would have to come up with the counter-check yourself; whether there is time to check, or whether you are pushed to close, to sign, to commit, now; whether your experience remains a clue that belongs in a larger picture, or is declared proof; and who interprets it, you yourself or only the provider, the teacher, the group.

The negatability test strikes this book itself hardest. “You are checking right now,” too, cannot in one respect be refuted by any experience. The finding as to whether you had noticed it was an observation and could have turned out otherwise. Checking itself could not, because checking whether you are checking is itself checking. Is the foundation, then, immunized? No, and the difference is what the whole test rests on. Immunization↑ hides its irrefutability and forbids the counter-check. Performative↑ self-reference lays its structure open and invites the counter-check: argue against arguing - you are already arguing. Negate a thought - you had to think it to do so. That you do it is the argument. This irrefutability hides nothing; it is an open property of the act, visible to anyone who performs it. The counterfeit, by contrast, needs a hiding place.

The foot in the door, however, this book shares with the counterfeit, and necessarily so. “You already know,” “You are already checking,” “You already bring everything you need” (DE: „Sie bringen bereits alles mit“) - that is how the first chapters began, and the counterfeit begins with the same words, because it imitates the genuine beginning. At the first step the two cannot be told apart, only at the steps that follow. That is why the tests apply first of all to these pages.

18.4 The Counterfeit Out in the World

Out in the world, the procedure looks the same everywhere; only the foot in the door and the goal change. Advertising says “You know yourself what is good for you,” (DE: „Sie wissen selbst, was gut für Sie ist“) and that happens to be exactly the product. In politics a justified unease is picked up, “Surely you feel it too: something has to change,” (DE: „Sie spüren doch auch, dass sich etwas ändern muss“) and steered toward a ready-made solution; the danger lies in mixing a justified concern with a questionable answer. In therapy and education, where trust and dependence prevail, it is “Deep down you know what is right” (DE: „Sie wissen tief im Inneren, was richtig ist“) - but who decides what your inner self is saying? Good therapy makes you less dependent on the therapist, good education makes you better able to think. In spirituality the search for meaning is acknowledged and then steered toward the one teaching, as if this were the only direction. And in academic life the counterfeit flatters your self-image, “You already think critically,” (DE: „Sie denken bereits kritisch“) and then equates critical thinking with one particular school.

> Experiment 19: The Tests in Use
>
> Take the last offer that told you that you actually knew it already - an advertisement, a course, a sermon, a self-help book - and hold the negatability test and the direction test up to it. What do you find?
> Often the second alone is enough: an offer that needs you to come back afterwards has not made you more independent.

Alongside the counterfeit there is a relative that works even more cheaply, because it needs no agreement at all: the trumped-up claim to deserve checking. An internal tobacco industry memo of 1969 summed it up in one sentence: doubt is our product. You do not have to convince anyone that smoking is harmless; it is enough for the question to seem open. Merely considering it is already a hit; unsettling people is the goal. This weapon turns a virtue of its victims against

them: their openness. “I’m just asking questions” (DE: „Ich stelle ja nur Fragen“) appeals to openness; anyone who waves it off looks like a dogmatist, and anyone who takes it up without checking has already given the attacker what he wanted: attention and the appearance of a genuine controversy. Its escalation is flooding. Claims can be made faster than they can be checked, and whoever throws twenty of them into the room has won as soon as the other side starts working through them one by one - not because any of them was true, but because the other side’s capacity to check is the real target.

The defense therefore begins one step earlier: not with the question of substance, but with the question of whether something deserves checking at all. Who is putting it forward, what does he get out of it, how have his claims held up so far, and why is it coming right now and in such quantity? The last question is aimed at campaigns, no matter who runs them, a corporation, a movement, or a government. You do not owe every doubt an investigation just because someone loudly demands one. What you owe yourself is a reason for waving it off that you can state.

18.5 When the Analysis Becomes a Barrier

What this chapter describes can be misused, too. Anyone who dismisses an objection with “that’s just manipulation” (DE: „das ist doch Manipulation“) without checking it, or a doubt with “trumped-up,” has turned a protection into a barrier. The tests therefore apply to the official account as much as to its opponents, to your own camp as much as to the other, and to these pages as much as to any others.

You recognize genuine checking by the mirror image of the tests. It makes those who follow it more independent: they discover what they can already do instead of learning what they are supposed to believe. It lays open its standards so that others can apply them to it, and it has no teaching reserved for initiates. And it stays open to correction, so it makes people better able to disagree instead of immunizing them against disagreement. Applied honestly, the method thus protects itself; the best protection against its counterfeit is to know the genuine article well. Whether these chapters have been of use to you will show in whether you can tell things apart better, or have merely become more distrustful of every conviction.

Chapter 19: Calibration

The inversions and counterfeits of the two previous chapters can be recognized by something that is false or trumped-up. The task we turn to now needs neither deception nor intent, and it is perhaps the hardest in this book. It begins in everyday life.

19.1 What You Know About Foreign Countries

You know a great deal about countries you have never been to. You have seen films and series, news and documentaries, videos online; you have read books and listened to friends who have been there. You probably know most about the United States, a fair amount about England, France, or Italy too, and less about India, China, or Russia. Of "Africa" or "the Middle East" as a whole, most people have only rough pictures, and rough pictures easily turn into prejudices.

Almost all of it may be true. The difficulty lies elsewhere: you cannot weight it. Most films about America are set in a few big cities, in New York, in California, some in Texas, the Westerns in the Midwest. Hardly any are set in Alaska, Nebraska, or Idaho. Of fifty states, few appear, and of those mainly the big cities. Researchers who study the country's regional cultures arrive at about a dozen, whose boundaries cut across those of the states; Texas alone has a share in several. You watch a documentary on gun violence in Texas, one on environmental protection in Vermont, one on poverty in Detroit, one on inventions in Silicon Valley. All four are accurate; all show something real. How do you weight the parts for your picture of the United States?

Some things cannot be shown at all, a smell, for instance, or the taste of the food. Some things were true only at the time they were filmed. Much never makes the news because it is like that every day. What people tell you is filtered too: someone who does business with a country comes home and talks about the business and the hotels.

Go there, and you notice what was missing. Anyone who spent two weeks in Manhattan in the mid-eighties saw steam rising everywhere from the pipes under the street, which no film had prepared them for, and hardly any cars except taxis; the explanation they were given was the high fines for illegal parking. Back then the sidewalks were kept clean mainly by the shopkeepers. The neighborhoods were very different from one another. You were warned about Harlem; riding through it on the bus, you saw nothing bad, but you were not inside any of the houses either. On the spot you pick up how people walk and how fast, how

they treat one another and how they talk, where the stalls are and what is in the shop windows. Above all, you get a sense of how it all fits together. Films show fragments of it.

Anyone who came to India for the first time in the early eighties found everything different from what they knew: hardly a plant they recognized, different animals, different birdsong, different smells, different music, different cars, and traffic at a different volume. There were beggars on homemade rope beds and others with no bed and hardly any clothes, hardly any supermarkets and hardly any packaging, food spiced in ways you had never tasted, and people who moved differently; young soldiers held each other in their arms, something you would not see German soldiers do. The films about India had prepared you for none of this. Much of it may be different today, and that too is part of the problem: what you have once seen stays in the picture, even when the thing itself has long since changed.

The stay itself is a fragment, too. Two weeks in Manhattan give you a part of New York, not yet the United States. What you saw there you must in turn place: what of it is American, what belongs to this city, what to this neighborhood? That holds for every country. Even Bavaria, looked at more closely, breaks down into Franconia, Swabia, and Old Bavaria, and Baden-Württemberg into Baden and Württemberg. And India, whose constitution recognizes more than twenty languages, strikes the visitor as more of a continent in its own right than a country. Seeing for yourself is precious because it shows what the pictures leave out. But it, in turn, is a sample and must be weighted like everything else.

This is the problem of the blind scholars from Chapter 5, with one difference. There, each had felt one piece, and what mattered was putting the pieces together. Here, something is missing, and you do not know what. What is missing entirely is actually the easier part: if you notice that you know nothing about Nebraska, you can read up on it. What is hard is weighting correctly what is shown. Is the gun violence in the documentary common or rare; is the neighborhood in the film the rule or the exception? It gets hardest with numbers. A statistic shows exactly what it measures, and nothing of what it does not measure.

Leaving things out cannot be avoided. A map that contained everything would be as large as the country, and useless. Every camera has a frame, every question leaves other things aside, every statistic counts what has been recorded. What is left out lies outside the question, the frame, what has been recorded so far. You do not see it, and so you do not see that it is missing either.

Calibration↑ comes from metrology: you compare an instrument's reading with a known standard and determine how far it deviates. No authority is needed for this - the official check would be called verification. Here, to calibrate means

to check your own sense of what is common and what is rare, what is normal and what is extreme, what is consensus and what is dispute, against reality - and where it deviates, to readjust it. Others can help you with this; no one can do it entirely for you. The other tests in this book are aimed at what is there. This one is also aimed at what is not there.

19.2 When Every Statement Is True

What happens by itself in everyday life can also be done on purpose.

> Experiment 20: A News Report
>
> Read the following report as if you had come across it in this morning's news:
>
> > The Elephant - An Underestimated Danger? One scholar felt a smooth, hard spear (tusk). A second reports enormous strength: a mighty pillar, strong and firm (leg). A third came upon something long and mobile, like a large snake (trunk).
> >
> > DE: „Der Elefant - eine unterschätzte Gefahr? Ein Gelehrter ertastete einen glatten, harten Speer (Stoßzahn). Ein zweiter berichtet von enormer Kraft: eine mächtige Säule, stark und fest (Bein). Ein dritter stieß auf etwas Langes, Bewegliches, wie eine große Schlange (Rüssel)."
>
> Pause for a moment: what did the report do to you? What impression of this animal has formed?
> Now the solution: you have long known all the sources of this report. They are three of the six blind scholars from Chapter 5, and none of them lied. Every detail is true. But the overall picture is distorted, because the threatening parts were selected and the harmless ones left out: fan, wall, and rope simply do not appear.
> If an impression of threat formed in you, however faintly, then the report did what it was built to do. If not, check what protected you - perhaps you knew the sources too well.

This is the deception against which checking individual statements achieves nothing. It does not lie; it weights. And what it hits is not what you believe but what you measure with.

The same thing happens away from the public eye, wherever one person prepares a decision for another. The department that writes a briefing paper for management knows the matter better than management does; that is why it is needed, and that is why it can weight things without anyone noticing. Management knows this and discounts for the intent it suspects. In doing so, it often throws out the knowledge contained in the paper as well. If the department knows this in turn, it weights more heavily. In the end each side distrusts the other with good reason, and neither learns any longer what the other knows. The only thing that can help is a form that makes the weighting visible: briefing papers that also name the options that were rejected and what speaks against their own proposal, and decision-makers who say why they decide otherwise.

19.3 Propaganda

No one has more practice in weighting than propaganda. We picture it as lying, and there are lies in it. In October 1990, while a war against Iraq was being debated, a fifteen-year-old Kuwaiti girl testified in tears before a human rights caucus of the United States Congress that Iraqi soldiers had taken babies out of incubators in a hospital and left them to die on the floor. The story went around the world and was cited again and again in the debate over the war. It later emerged that the witness was the daughter of the Kuwaiti ambassador in Washington and that a public relations firm had prepared her appearance, on behalf of an organization funded by Kuwait; no evidence for the story was found. There are many such reports around wars, on all sides. But they are the exception that makes the rule visible. A lie can be refuted, and a refuted lie damages whoever spread it.

The rule is more modest and more effective. Of the enemy you show the bad, of your own side the good, and every single report can be true; the selection makes the picture. In a more refined version, both sides are shown, but not equally: the favored side gets the better voice, the stronger image, and the last word; the other gets its weakest representative. This creates an appearance of balance, and it is precisely this appearance that makes the weighting invisible. The opposite form works through sheer quantity: you show so many dissenting opinions and so much confusion that in the end nothing seems certain any more - the flooding from Chapter 18.4. How propaganda appeals to feeling before reason is consulted was described in Chapter 14.2.

Against propaganda, then, exposing lies helps less than asking what is missing. What would I learn about my own side if I read the enemy's reports, and what

about the enemy from my own side's? Who gets the strongest voice in a program that seems balanced? These questions apply to every side, including the one you yourself lean toward.

19.4 The First Level: Checking Individual Statements

Against simple deception, which asserts something false, the means were developed long ago: we ask about the source's expertise and interests, about how close it was to the events, about whether it agrees with independent sources, and about whether the supposed reason says more than what it is meant to explain - or merely names it again, like the remedy that puts you to sleep "because it has a sleep-inducing effect." (DE: „weil es eine einschläfernde Wirkung hat") This is the detective principle applied to sources.

The first level also includes grading one's own certainty. Not everything deserves the same degree of it, and the degrees differ in level as well as in kind. That seven times eight is fifty-six is certain because the calculation can be checked; that the earth is round, because many independent routes lead to the same finding; that a friend is reliable, because he has been so often enough; that you are thinking right now, because even doubting it confirms it. A percentage puts these certainties on one scale, as if they were of one kind. That is useful when the question is how much to stake on something. It becomes misleading when one thinks that a calculation becomes more certain through more witnesses, or trust in a friend through a calculation.

And the first level includes deciding what deserves checking at all, the question with which, in Chapter 18.4, the defense against the unearned claim to be checked began. Checking costs time and attention, and anyone who investigates every claim has squandered their capacity for checking before the next flood arrives. Anyone who ran out into the garden at every report of a UFO there would have failed to understand something: calibration includes the base rate, the question of how claims of this kind have held up so far. Then there are the stakes - what depends on it if I am wrong? - and the source's track record. And no one checks alone. Whether a medicine works is checked for me by studies, approval procedures and the debate among specialists; relying on this is as reasonable as buying my bread from the baker instead of growing wheat. But one has to know what that gives one. The fact that specialists say something is a reason to believe it, often a good one, but not an explanation of the matter. Anyone who has only this reason does not know why things are so, and therefore cannot recognize when they are no longer so. What one can check without being a

specialist, however, is how the specialists checked: whether their reasons are open to view, whether they say where there is agreement and where there is uncertainty, and whether the counter-argument stays on record. The IPCC, for instance, states for each of its findings how well supported it is and how far the specialists agree. Precisely for that reason it can be criticized on its methods and weightings, instead of being believed as a whole or rejected as a whole.

This economy of checking has two dangers that mirror each other. One is the filter that fails, so that every miracle cure and every dark insinuation gets investigated; the unearned claim to be checked builds on this failure. The other is the filter that clogs up and lets through only what government, majority, specialists and tradition say anyway. These four are good rules of thumb, but none of them holds up on its own. A consensus of specialists is worth only as much as their independence; a hundred voices that copy from one another are one voice. And a majority that punishes dissent no longer shows what many have checked, but what many dare to say. Similar questions can be put to a government that has its own interest in the matter, and to a tradition that proved itself in a different world. The most reliable sign of whether your own filter has tilted is symmetry: do you wave off what is inconvenient as quickly as what is convenient? The tilted filter runs exactly along the boundary of one's own camp. It checks nothing that troubles one's own side, and everything the other side says. The healthy filter saves effort; the tilted one saves one from fear or from nonconformity. There have been societies in which the unchecked ruled because checking had become dangerous.

The same test applies to the dissenter. An opinion is no more made true by prevailing than by dissenting. Majorities have been wrong, but so have most dissenters; it is just that no one remembers them. Anyone who thinks that almost everyone is mistaken, government, press and the specialist world alike, must therefore first ask whether he himself is on the wrong track. Does he also look for the evidence against his suspicion? Does he know the strongest advocates of the other side, or only the weakest? Does he want to know how things are, or to have it confirmed that he is cleverer than the others? The further a claim departs from what is well checked, the more it has to show. That is not a verdict on it but an allocation of the burden, and what is well checked can be wrong too; it just has to be movable by evidence.

This economy has one limit: it allocates attention, not truth. A low base rate justifies stricter demands on the evidence, but it refutes nothing. The interested party can be right, too, and the independent one wrong. Only the check itself decides between true and false; otherwise what has been rare so far would never be checked again, and nothing new could be recognized as new.

19.5 The Second Level: The Distribution

> Experiment 21: The Tool at Its Limit
>
> Take the report about the elephant scholars from Chapter 19.2 and check it with everything the first level has to offer. What do you find?
> The sources are impeccable; the scholars did the feeling themselves. No interest can be detected. The reports do not contradict one another, each is first-hand, and nothing in it is implausible. Every check of what is there is passed - and the overall picture remains distorted. You would find the error only if you reread the six reports yourself and looked for what is missing. But none of these checks is aimed at that, because they check what is said.

A tool whose limit is known is worth more than one that is trusted to do everything.

The deception at which this tool fails asserts nothing but truths, like the report about the elephant and the propaganda from Chapter 19.3, and works through the distribution: what is selected and what is not, how often something is repeated, in what context and in what order it appears. “Everyone is talking about X,” (DE: „Alle reden über X“) but most people have quite different worries. “Experts warn,” but it is three out of a hundred. An exception is presented as the normal case, a snapshot as a trend, a single fate set against all the data - or the other way round. Every single statement may be true. What is under attack is your sense of what is frequent and what is rare, and this sense does not come from arguments. It builds up as a deposit from a thousand reports, conversations and images. The pre-judgments from Chapter 4 reappear here one level deeper: not as contents we bring with us but as frequencies we bring with us.

At the first level the question is: Is that true? At the second it is: Is that representative - and why am I seeing this in particular, and what am I not seeing? In a famous detective story Sherlock Holmes solves the case through the dog that did not bark in the night. What tipped the balance was a clue that was absent. In the abuse of the method, the falsification gave itself away through the alternative that did not appear in it. What was missing of its own accord in the case of the foreign countries becomes the main point here: whoever shows only what is true gives himself away not by what he shows but by what he leaves out.

How frequent is that really? A true single case says nothing about a frequency; only the rate turns the anecdote into a statement about the world. What would I have to see if the opposite were true - and if I do not see it, is it missing, or is it not being shown to me? This question separates the world from your picture of the world. Who or what selects what reaches me, and by what standard - by

truth, by outrage, by time spent? A stream drawn entirely from reliable sources can be distorted if the selection is distorted, and the most important selector is you yourself: no one needs to force a one-sided stream on you if you put it together yourself. And finally: has my sense of what is normal shifted without my being able to name a new argument? Genuine learning can show its reasons. A shift without a nameable reason is the mark of calibration manipulation, like the frog in the well-known parable, which, in slowly heated water, cannot name a moment when it became too hot.

19.6 When No One Censors and Filtering Happens Anyway

The hardest form has no address. An office that lays down what counts as true (Chapter 17.6) is the easy case for calibration: it can be named. Harder to pin down is steering that no one sets up: an agency issues guidance, a platform follows it, a committee recommends how the population should be addressed. Each step has a plausible justification, no one censors, and in the end the space is filtered without anyone having decided it; Chapter 17.7 showed what this looked like during the pandemic. Whether, and how far, such steering takes place can be checked only if the guidance and compliance with it are on public record.

With such filtering, even the checks of the second level easily fail, because the instruments work and the result is still wrong: the agency has proved reliable so far, the consensus is broad, every single statement passes - for a picture from which whatever contradicted it has been removed. Here the question of what is missing can be answered only by looking at how contradiction was handled. Was a counter-position refuted or merely labeled? Has it been settled, or has it disappeared? Is it still on record? Where a position can no longer be found, that does not refute it; perhaps it was removed, and a consensus that came about without counter-argument is, in the first place, a finding about the space in which it arose. It may be true nonetheless. The same rule holds in the other direction: inferring manipulation from the absence of contradiction is the same error from the other side, for there is consensus that came about because the matter was clear. What one can look into is whether there was counter-argument and what became of it; from its mere absence nothing follows.

The temptation is close at hand to answer all this with an authority that sets the right weighting for everyone: authorized fact-checkers, algorithms that sort the true to the top. If almost all specialists really do hold one position, a minority view should not get the same space - and that is right, as long as it remains a question of weighting and the minority view gets as much space as its evidence will bear.

It becomes a trap when weighting turns into exclusion, when no one asks any longer how the large majority came about, and when the label “dangerous” takes the place of checking. Such an authority does not solve the problem; it shifts it: everything then depends on who holds the authority, and whoever holds the channel holds the calibration of all who trust it. Calibration that is distributed and one’s own has no master switch that could be flipped. That is why it is a capacity a free society needs from its citizens. Anyone who considers people capable of checking for themselves must also trust them to decide for themselves.

The same holds for the language models that now read and write along with us. What such a model takes to be normal, disputed or consensus is the sediment of the texts it learned from, and it can hardly see beneath this deposit: precisely where it most fluently cites “most experts,” it is often the sediment speaking, not the check. As a tool on the second level it can still be powerful, if one has it look for dissenting voices, base rates and what is missing. The remedies for such a model are the same as for you: uncertainty made explicit where majorities and frequencies are concerned, the search for what is missing, distrust of one’s own sense of consensus, and checking by others.

A related distortion arises not from selection but from measuring itself. When a number that is meant to indicate a state of affairs becomes a target by which people are judged, they change what they do until the number is right and the state of affairs no longer is: the school drills for the test instead of teaching the subject, the office handles the easy cases first. At the outset the number was a good instrument, and it has lost its informative value through its use, without anyone falsifying anything in it. So anyone who comes across such a number asks not only how it was measured but also who is judged by it.

There is no immunity against this level, only vigilance. One can learn to check and correct the weighting, even where every single statement is true, and one has to do it again and again.

Further reading: *Calibration* (2026), *Ethics – The Good We Already Do* (2026), Ch. 13.5, *Organization* (2026), Ch. 5 and 6

PART V: TRUTH AS PROCESS

Chapter 20: Truth and the Truth Process

20.1 What "The True Is the Whole" Means

Checking that is never finished, orders that remain open to correction: one might think that in the end there is only a heap of provisional findings. Against this stands a sentence that has come up several times in this book: the true is the whole. It is often taken as a call for completeness: collect all the facts and you have the truth. That cannot be what it means.

One can dissect a living creature, record every organ, look at every cell under the microscope - and it is precisely life that has then vanished. Goethe put this into the mouth of his Mephistopheles: *"Wer will was Lebendigs erkennen und beschreiben, Sucht erst den Geist heraus zu treiben, Dann hat er die Teile in seiner Hand, Fehlt, leider! nur das geistige Band."* ("Whoever wants to recognize and describe something living first seeks to drive out the spirit; then he has the parts in his hand, only, alas, the spiritual bond is missing.") The same happens in thinking. One can collect all the arguments, list all the viewpoints, work through all the questions and still miss what first joins them into an insight. A listing in which any item could be left out or replaced by another without changing anything in the whole looks orderly and has no bond. Where a list serves a purpose, in maintaining an aircraft for instance, it belongs to living order; it becomes dead where it takes the place of understanding.

Something is whole, therefore, not because nothing is missing but because its parts determine one another. This can be called living completeness, as distinct from mechanical completeness, which collects and ticks off. A good portrait shows a person's character without recording every mole. A good detective sweeps no clue under the carpet, but he does not give each the same weight; he looks for those on which the case turns, and the rest fall into place or remain visible as open items. In this sense the true is the living, logically ordered, developing whole.

Living means: the parts stand in mutual relation. Each points to the others, is determined through them and develops with them, as in an organism in which each organ works only in concert with the others.

Logically ordered means: there is a recognizable structure to the relations. Not everything is connected arbitrarily with everything else; there are stages, transitions, lines of development. The order is not imposed from outside; it arises from the thing itself and must prove itself against it.

Developing means: the whole is not there, finished, from the start; it has yet to become what it is. In the same way this text, too, has developed its order as it went, instead of presupposing it.

Whole means: nothing essential to understanding the connection is missing. That does not mean that everything possible has to be mentioned, as the portrait shows.

Truth↑ is therefore essentially a result, but not a finished product. It arises in thinking, develops through contradictions and is completed in the systematic integration that also takes in what resists our wishes. We who seek it belong to this whole as well.

20.2 Truth as Process

That every order reached remains open does not mean that there is no truth. It means that truth unfolds, and in two respects: our knowing develops, and often what we know develops too - life, the city, society - often precisely through our efforts to understand them.

This book has not fixed in advance what truth is. It has developed it step by step, and each step showed what the previous one still lacked. At the beginning stood the question that presupposes itself: anyone who asks what truth is wants a true answer, and anyone who disputes checking is checking as he does so. This self-reference alone does not yet explain what truth is; it shows that we are in the middle of it. The blind scholars showed that the thing opens up only when many perspectives are brought together, and the living whole showed that this bringing together is not addition, because the parts determine one another. Where the perspectives contradicted one another, neither rejecting them nor merely setting them side by side helped; only the principle that explains and preserves both did. The detective demanded that every clue find its place. And Chapter 10 showed that what resists our wishing and interpreting also belongs within this connection and does not lie beyond it. Truth is the process in which all of this interlocks.

Whatever has been reached at a given point can be called known truth. It is not mere opinion, for it has passed the check, but neither is it the last word. It holds until a better order sublates it, and in that order it remains preserved, as Newton's mechanics is preserved as a limiting case in the theory of relativity. What drives it further is what the steps of this book have developed: an order in which a contradiction remains open, a clue has no place or something essential is missing is not yet the whole. The whole of searching, finding and searching further is called the truth process. It is not an exchange in which truth is made at will, for whatever holds in it must also stand up to what bends to no wish and no majority.

From here another way of speaking also becomes understandable. It comes about through a reversal: once an order has been found, attention turns to the order itself. An explanation is called true if it explains its subject matter completely and without contradiction; a report, if it presents everything essential in a suitable form; a concept, if the whole can be grasped with it. And with the concept gained, the thing itself can be measured. A two-legged chair that tips over is not a proper chair; whoever proves himself in need is a true friend; a work has succeeded if it is what it is meant to be. This truth of the thing does not stand against the first. It grows out of it, for the concept by which the thing is measured was gained in checking, and it too shows itself only in the whole of a life or of an effect.

Known truth can contain errors that only a better order uncovers. The theory of phlogiston was for a time the best explanation of combustion and was nevertheless replaced by a better one; whatever in it explained phenomena remained preserved in the new one. That is why the truth process does not come to a standstill.

20.3 The Treadmill and the Other Infinity

An objection suggests itself: if the search never ends, is it not in vain? A goal that stays out of reach seems to be no goal at all, but a treadmill.

The objection hits a particular picture of infinity: always one more. One more fact, one more study, one more perspective, and the goal stays just as far away, like a number to which you can always add one. If truth were infinite in this way, the objection would be right.

But test the picture against your own path through this book. When it became clear why the stick in the water looks broken - did you merely take one step toward a distant goal, or did you come to know something? Whoever has understood

why has come to know something, and this insight was whole, not half. That optics went on asking afterward did not make it incomplete; it made it alive. The single search ends when what prompted it has been cleared up, for the purpose for which the question was asked. The process in which it stands does not end.

That is the other infinity: not the endlessly distant, but the process that is real in each of its steps. The whole does not wait at the end of the road; it is already at work in every act of knowing and drives beyond it. Every insight is truth known, and none is the last. Seen from outside, the search for truth is like a horizon that recedes the nearer you come. Seen from inside, every step is ground gained. The horizon recedes - the ground remains.

Philosophy has names for the two pictures: always one more is called the bad infinity, and the process that is at home with itself in each step, the true one. On this depends whether the endlessness of the search for truth means futility or progress.

20.4 Many Paths, One Direction

Because checking has a direction, toward the whole that suppresses nothing, not all paths are equally good. Because this whole opens up only in checking, many paths nonetheless lead there. You can call this stance oriented pluralism: oriented, because there is a direction, and plural, because different perspectives on the same thing complement one another. What shows the direction is not particular results but the way of checking itself: that reasons are given, perspectives brought together and contradictions worked through, and that every result remains open for others to check and revise. An orchestra shows it: when everyone plays for themselves, you get chaos; when all play the same thing, you get uniform mush. Music arises when different voices fit together into a whole.

The distinction from Chapter 5 holds here too. Some positions feel their way to parts - findings, data, observations that only together make up a picture; they are checked for how they fit into the whole. Others are whole ways of seeing, like Pessoa's heteronyms; they are asked what they see, without being shrunk into building blocks. This does not mean harmonizing everything. Some things can be salvaged, some only contained, some only endured. The search for truth distinguishes, rejects for stated reasons, and leaves open what has not yet found an honest mediation. Integration↑ comes after checking, not in its place. That is the third way the preface spoke of: not the middle between the camps, but, with each of them, first the question of what they have seen.

That is why diversity has a limit. A stance becomes problematic where it ends checking before it has begun: by declaring its own truth untouchable, by declaring all truth a power game, or by handing judgment over to experts. Whoever refuses on principle to give reasons excludes himself from the common checking. An openness that declares even hostility to checking justified cancels itself. A stance that keeps checking open combines both: "I can be mistaken, but I have good grounds." (DE: „Ich kann mich irren, aber ich habe gute Gründe.") It seeks out others instead of fending them off, checks in dialogue with them what cannot be checked inside one's own head, and says openly what it does not yet know.

Chapter 21: Does This Text Do What It Says?

21.1 The Path

Look back on the path you have taken. It began with the question that presupposes itself: whoever asks what truth is wants a true answer. It led to the presuppositions that cannot be denied without being used, to the activity contained in the simplest perception, and to the pre-judgments that guide it. Many reports became an elephant, contradictions became doors, clues became a case. And all these steps drove toward a question that none of them asked: if checking, presupposing and fitting together take place entirely within experience, what then does agreement with reality mean? The answer - that reality makes itself felt in resistance, within experience and not beyond it - gathered up what the first part had prepared. From there it became clear that different domains resist in different ways and ask to be understood in different ways, that checking can be developed into a method, and that, because it makes us free, it must be defended, even against those who obstruct it in the name of truth. Hardest to check, in the end, was what is not there at all: what has been left out, which makes a picture made of nothing but truths crooked. Only after that could we sum up what truth is.

> Experiment 22: The Explanation Backwards
>
> Was the order accidental? Could we just as well have begun with the detective principle and ended with self-reference?
> Try it: explain the detective principle to someone without first having talked about how different perspectives are connected. Or explain dialectic to

> someone who has never experienced a contradiction as fruitful. And for the later parts of the path: could you talk about the abuse of checking before it is clear what agreement means? Or about calibration before you have learned to weigh clues? What happens?
> Presumably it works every time, but with more difficulty: sometimes something is missing, sometimes much remains abstract. A different order would have been conceivable; the one chosen is not arbitrary.

The path had a necessity that arose only as it was walked. Necessary here does not mean that no other path would have been conceivable, but that each step had a reason in the one before. Each concept showed what it still lacked and so drove on to the next. But looking back can flatter: in hindsight, much looks necessary that merely happened. The harder test is whether the text does what it says - whether it is performatively consistent.

21.2 The Test

The claim was that truth arises in the enactment. You do not take it over as a finished sentence; it forms in your own checking. The text did not begin with a definition you were supposed to believe, but with what you are already doing. Whether it stayed with that, only you can judge: at how many points did you check for yourself, and at how many were you only meant to follow?

The claim was that everything must fit together. Check it: are there loose ends? Does each chapter fit into the whole? Where it does not, the text is wrong at that point.

The claim was that pre-judgments are unavoidable, but must be conscious and open to revision. This text, too, presupposes things, and not all in the same way. That truth matters, that reasons should count, and that the other person is a possible checker to whom one owes them, is not a pre-judgment that could be revised. Whoever denies it wants to be proved right by reasons and thereby claims what he denies; this is where the book began. Whoever checks also claims that the judgment is to follow the matter itself and not one's wishes, and that every result can therefore be corrected. He does not thereby claim any content: what is true in the individual case follows from none of these presuppositions; it must first show itself in checking. The text did not bring these presuppositions in from outside; it uncovered them in the enactment of checking. Someone who does not want to check but only to be right, however, cannot be reached by any argument; no proof leads into the common search, only the willingness to

engage with reasons. It is different with what the text assumes about people: that they can be reasonable and that mutual understanding succeeds. These are expectations, not conditions, and experience can disappoint them, often enough in individual cases. The former are secured by the enactment that claims them, the latter only by proving themselves.

The examples in this text, too, did not fall from the sky. The used car, the detective, grandmother's recipe: this is a particular language, a particular culture, a particular time. Another text would have chosen other examples. The claim lies not in the examples but in the enactments that become visible in them, and these must show themselves just as well in your own, different examples, or else the book is wrong.

The claim was that checking makes us free. Whether you feel freer proves nothing; a fake can produce this feeling too. That leaves the direction test from Chapter 18: do you now check better without this book than you did before?

The claim was that the principles can be turned upside down. This applies to this book as well. Whoever uses it to feel superior ("I am enlightened, the others are camp thinkers," (DE: „ich bin ja aufgeklärt, die anderen sind Lagerdenker") "I see through the manipulation, the others do not" (DE: „ich durchschaue die Manipulation, die anderen nicht")) has misunderstood it. Its concepts can be used as clubs, and its tests against any conviction one does not like. The only protection against this is to apply them to oneself first: where am I dogmatic? Which of my convictions do I shield from criticism? And the question from Chapter 11.4: when was I last turned around on something that mattered to me?

The claim was that even nothing but truths can make up a skewed picture, through what is missing. This applies to this book as well. The cases in Part IV are selected, like any news report. Check them against what Chapter 19 demands: do they come from all camps, is the same question put to each, and what is missing?

That leaves the question whether this text is open to criticism or immunizes itself through its self-reference. Every objection you can formulate is welcome. Show that the text contradicts its own principles, and it is refuted at that point and must be changed. Only its starting point is beyond attack; it would fall only if someone could be found who disputes checking without checking in the process. No one can meet this condition, but it is not a hiding place; it is the open irrefutability of checking from Chapter 18.3. Everything built on this ground remains refutable. That includes how checking is done and everything this book says about it, down to its very concept of checking. All that cannot be disputed is that checking is done, and what every act of checking claims in doing so; even someone who corrects the concept of checking is checking. The objection that everything here is revisable except one sentence therefore misses the mark: what

is exempted is not a sentence, but the enactment without which there would be no revision.

A text about the process of truth can therefore never be finished. If it considered itself complete, it would contradict its own thesis. The final judgment is not its to pronounce, but yours.

21.3 Where It Goes From Here

What has been developed here in the enactment points beyond itself in two directions.

One is the question of where the forms of checking come from and how they hang together - how to bring order without losing what matters. Checking seeks to understand itself, and whoever is practiced in it stays spontaneous and notices sooner when he needs to change direction.

The other is action. You already recognize others as agents when, in traffic, you reckon not with obstacles but with people who make decisions and mistakes. When you cook, you balance taste, health, time and money without thinking about it. When your child wants to keep playing in the evening and needs to be well rested tomorrow morning, you look for a solution that does justice to both. And if, at two in the morning, you are standing as a pedestrian at a red light on an empty street, you ask what the rule is for. These are the same abilities you check with. Whoever understands what he is doing when he thinks can therefore also act more consciously.

Truth↑ has many faces - but it is one. And you can know it.

Further reading: *Thinking – Ordering Without Losing* (2025), Ch. 12, *Ethics – The Good We Already Do* (2026)

APPENDIX A: WHAT THE THEORIES OF TRUTH HAVE SEEN

A1 Introduction: An Old Dispute

Imagine a salon in which people have been arguing about truth for two and a half thousand years. At one end, someone holds to the oldest answer: a sentence is true if it says what is. At the other end, a coherence theorist calls out: “With what do you want to compare the sentence? We have only our judgments. True is what fits into the whole of our knowledge!” (DE: „Womit wollen Sie den Satz denn vergleichen? Wir haben nur unsere Urteile. Wahr ist, was sich in das Ganze unseres Wissens fügt!“) In between talk pragmatists (“True is what proves itself in the long run” (DE: „Wahr ist, was sich auf die Dauer bewährt“)), discourse theorists (“True is what could stand before everyone in free checking” (DE: „Wahr ist, was in freier Prüfung vor allen bestehen könnte“)), and constructivists (“We build our reality ourselves” (DE: „Wir bauen unsere Wirklichkeit selbst“)).

Each has convincing arguments and can point out the weaknesses of the others. The dispute seems endless.

The story of the blind scholars from Chapter 5 suggests a conjecture: perhaps each is right about what he has felt, and wrong as soon as he takes it for the whole. Then the real question would not be who is right, but in what respect the answers fit together. This appendix tests the conjecture on the theories themselves. For each one, it says what this book takes from it and what it does not adopt, and, for most of them, where a question remains open.

A2 How the Dispute Arose

Different Moments of the Same Search

The search for truth, as the main text has shown, has different moments. Something must show itself (Chapters 3, 10). It must fit with the rest (Chapter 8). Others

must be able to check it (Chapters 11.1, 16.2). And it must prove itself (Chapter 10.5).

These moments belong together, but each can be considered on its own, and the history of philosophy has done just that. The empiricists started from experience, the rationalists from the order that the understanding brings with it; the pragmatists put proving itself at the center, the discourse theorists common checking.

Why Each in Turn Became the Measure

Each of these moments has cases in which it alone seems to decide. Whether the pill works is shown by experience; whether a proof is correct, by how the sentences hang together; whether a bridge holds, by its holding. Whoever starts from such cases finds his own moment everywhere and the others only as additions. Most of these theories knew the other moments and built them in. What the dispute was about is which moment is the measure of the others.

This is the situation of the scholars in the story, only in subtler form: each correctly describes what he has in his hands, and takes it for the thing against which the other parts are to be measured.

A3 Pyrrhonian Skepticism: Withholding Judgment

Ancient philosophers already drew a conclusion of their own from the dispute among doctrines: not to decide. Their founding figure is held to be Pyrrho of Elis (about 360 to about 270 B.C.), who left nothing in writing. We know the doctrine in worked-out form from the *Outlines of Pyrrhonism* by the Greek physician Sextus Empiricus (2nd century A.D.). There, the skeptic is the inquirer who keeps on searching.

The Pyrrhonist has little in common with the skeptic of Chapter 2. He does not claim that nothing can be known; he holds back even his own formulas. For Sextus, skepticism is an ability: to set against every statement one of equal strength (*Outlines* I 8). From this equal strength, in Greek *isostheneia*, follows the withholding of judgment, *epoché*, and, following it like a shadow, imperturbability, *ataraxia*. Sextus illustrates this with the painter Apelles, who could not manage to paint the foam at a horse's mouth and finally threw his sponge at the picture; the mark it left produced the foam. One can perfectly well live this way: the

skeptic follows what appears to him - hunger, the customs of his country, the rules of his craft - without claiming that things are so.

How to find the counter-statement of equal strength is taught by the tropes, moves with which any judgment can be halted. Tradition ascribes five of them to a later skeptic named Agrippa (*Outlines* I 164-177). On every matter there is disagreement. Whoever wants to settle it needs a reason, the reason needs a further one, and so on to infinity; whoever breaks off makes a presupposition, and the opponent may with the same right presuppose the opposite; whoever draws the reason from what it is meant to support goes round in a circle. In addition, everything appears only in relation to the one who judges. Regress, breaking off and circle are the three ways out of the Münchhausen trilemma from Chapter 1.

The book takes up much of this. The objection from Chapter 2 does not hit the Pyrrhonist: whoever asserts nothing does not contradict himself by asserting. The tropes are genuine checking questions that everyone who checks asks: what does the reason rest on, what is being presupposed, do the reasons merely support one another, how far does the judgment depend on the standpoint? And where the reasons really are equally strong, withholding is the right response; the book calls this leaving a question open (Chapter 20.4).

Where the book disagrees is at the enactment, not at a sentence. The equal strength of two statements is not a starting point but a finding. To arrive at it, the skeptic must seek out the counter-statement and weigh it until it is a match for the first. So he is checking, with the very distinction between better and worse grounded to which he does not want to commit himself. If he says the equality merely appears so to him, then it is a finding that can turn out otherwise, and often it does: that seven times eight is fifty-six can be worked out again, and no counter-statement outweighs it (Chapter 19.4). The same goes for living by what appears. A physician, as Sextus was, gives the sick person the remedy that has proved itself, not just any remedy; what appears to him has already been checked and weighed (Chapters 3, 10.5). The difference therefore lies less in what is done than in what it is called. The Pyrrhonist holds back the word knowledge; the book uses it for the judgment that claims as much certainty as its reasons will bear and lets itself be corrected.

The book therefore does not answer Agrippa's tropes with a first sentence that would stop the regress; that would be a presupposition the opponent may reverse. It answers with the footing found in the enactment (Chapter 1). Withholding, too, comes about only through checking; it is one of its forms, not its opposite. What is built on this remains refutable (Chapter 21.2). Hegel, who ranked ancient skepticism far above that of his own day, held in 1802 that the

five tropes were the fittest weapons against any doctrine that posits something finite as the unconditioned, and useless against a philosophy that does not do so.

What remains open is calm. The Pyrrhonist finds it where he stops deciding; the book finds freedom in checking (Chapter 16). Whether withholding brings calm or leaves aside a question that could be answered, only the individual case shows.

A4 Correspondence Theory: Resistance Points the Way

The oldest answer comes from Aristotle: "To say of what is that it is not, or of what is not that it is, is false; to say of what is that it is, and of what is not that it is not, is true" (DE: „Zu sagen, das Seiende sei nicht oder das Nichtseiende sei, ist falsch; zu sagen, das Seiende sei und das Nichtseiende sei nicht, ist wahr") (*Metaphysics* IV 7). The Scholastics turned this into the formula of the agreement of the intellect with the thing, *adaequatio intellectus et rei*, which Thomas Aquinas cites in *De veritate*. What it captures is what every search for truth depends on: that our thoughts must measure themselves against something beyond our arbitrary control.

The book keeps this element. What it does not take over is a picture often attached to the formula: as if one had to step outside consciousness and lay thought and thing side by side. Agreement shows itself in the resistance that certain experiences offer to our wishes and interpretations. Someone who is sure he has put the key in his pocket can convince himself of it as firmly as he likes - whether the pocket is empty is not for him to decide. It is at this limit that correspondence is experienced - within experience, not beyond it. The comparison across the abyss drops out. The real comparison runs between thought and perception, as the chapter on the comparison that is no comparison has worked out (Chapter 10.4).

What remains open is what corresponds to a true sentence that speaks of nothing one could encounter: a number, a norm, what does not exist. The section on truthmakers returns to this.

A5 Coherence Theory: The System Must Fit

As a fully worked-out theory, the coherence theory of truth arose around 1900 in British idealism, with Francis Herbert Bradley and Bernard Bosanquet; a German precursor appears two decades earlier in Lotze and Windelband (section B7a). Harold H. Joachim gave it a self-contained form in *The Nature of Truth*↑ (1906), and Brand Blanshard gave it its most influential one in *The Nature of Thought* (1939). Its starting point is the objection to laying thought and thing side by side: we never get at things except in judgments, so a judgment can be measured only against other judgments. What is true is what fits into the comprehensive, contradiction-free whole of our knowledge and is supported by it. As with a detective, in the end every clue must have its place.

The coherence theorists knew the obvious objection that even a delusion can be coherent in itself. Blanshard replied that what is meant is the connection with everything that is experienced, perceptions included, not with a selection. In this he stands where Chapter 10 arrives: coherence in this broad sense includes what imposes itself, and the correspondence check is its most demanding case. Nicholas Rescher later framed the theory more modestly: coherence, he said, is not what truth is but the criterion by which we recognize it (*The Coherence*↑ *Theory of Truth*, 1973). In 1983 Donald Davidson tried to show that coherence, rightly understood, yields correspondence.

Chapters 7 and 8 take up the core: that a single insight has its footing in the connection, and that a contradiction shows where the order falls short. Bradley and Joachim above all, however, insisted on a point where the book does not follow them: only the completed system, they held, is wholly true, and every finite judgment only in part, in degrees. Joachim himself concluded from this that his own theory, too, could be only partly true. The insight reached at any given point, by contrast, is whole, not half, but not the last (Chapter 20.3). It is not a fragment of some distant system but the best possible order of what we know now, and it remains preserved in every better one.

The British idealists liked to appeal to Hegel's sentence "The true is the whole." What it means in Hegel, and how the course of this book relates to Hegel, is set out in Appendix B.

A6 Pragmatism: The Fruits Show the Tree

In 1878 Charles S. Peirce defined truth as the opinion on which all inquirers would converge in the long run, and the real as what is represented in that opinion.

From this William James developed a doctrine of verification: the true, he said, is the expedient in our thinking, "in the long run and on the whole." (DE: „auf lange Sicht und im Ganzen") Truth↑ "happens" to an idea; it becomes true through what happens (*Pragmatism*, 1907). John Dewey finally replaced the word with "warranted assertibility" (DE: „gerechtfertigte Behauptbarkeit") (*Logic*, 1938). What they recognized is that the difference between true and false ideas shows itself in their consequences, and that an idea with no consequences cannot be checked.

Chapter 10.5 picks up on this: we check by acting. Pragmatism itself also saw the objection commonly raised against it: not every success shows truth. A deception can work for a while; a lie can pay off in the short run. That is why James spoke of the long run and of the whole, and Peirce of the end of inquiry.

The performative view agrees: truth is an enactment, not a static state, and it must show itself in practice. But it draws a distinction: not every success is truth. The criterion is not just any usefulness but lasting verification in open engagement with what resists. And verification is more than functioning, because it includes the thought that grasps the action, without which the action would be a mere stumbling along (Chapter 10.5). Here the book stands closest to Peirce, for whom truth lies in the course of inquiry and not in the single success.

The paths part at one question: what about a truth that no inquiry will ever come upon because its traces are lost? For Peirce it becomes hard to still speak of truth in that case. Chapter 10.6 denies that it makes sense to speak of an error that could in principle show itself in no way at all. But a past with blurred traces is not inaccessible in principle: the traces would have allowed a check; they are only lost. What remains open is how far one can still speak of truth when the resistance on which the book otherwise rests everything can no longer make itself felt.

A7 Consensus Theory: The Shared Search as a Criterion of Truth

In his essay "Wahrheitstheorien" (1973), Jürgen Habermas understood truth as a claim that an assertion raises and that can be redeemed in discourse: what is true is what everyone could agree to who takes part in the checking free of coercion and deception. Karl-Otto Apel, following Peirce, thought of the agreement of an unlimited community of arguers, and he argued that the presuppositions of

argument cannot be disputed without relying on them in the very act of disputing: anyone who tries commits a performative self-contradiction. Both showed what everyone who argues presupposes: that his reasons are meant to hold for everyone, and that every objection must be heard.

Here the agreement with this book is greatest. The search for truth is never solitary: others resist us as people to whom we owe reasons (Chapter 11.1), and anyone who refuses justification on principle excludes himself from the shared search (Chapter 20.4).

What is rejected, on the other hand, is the idea that agreement makes things true. That everyone holds something to be true does not make it true, and neither does agreement under ideal conditions. Agreement is possible because those who check refer to the same reality, like the blind men to the same elephant. Habermas later took this step himself (*Wahrheit und Rechtfertigung*, 1999): truth reaches beyond any justification, however good, and discourse refers to a jointly presupposed objective world. At this point the late Habermas meets the elephant principle. Discourse is then the place where truth is checked and found, not the place where it comes into being.

What is still unresolved is how, in a particular dispute, one can tell that an agreement rests on the matter itself and not on pressure. Chapters 19.4 and 19.6 named tests for this - the independence of those who agree, the freedom to dissent, and what became of the counterarguments - but there is no formula.

A8 Kant: The Limit from Within

Immanuel Kant explicitly “granted and presupposed” the nominal definition of truth, that it is the agreement of cognition with its object (*Critique of Pure Reason*, A 58/B 82). In doing so he does not claim a comparison with a thing outside; what he denies is that there is a mark by which this agreement could be read off for every content. His question was a different one: under what conditions can anything be an object for us at all? Our cognition needs intuition and concept; our intuition is sensible; and space and time, as well as concepts such as cause, come from us. That is why we cognize things as they appear, not as they are in themselves.

Appearance here does not mean illusion. Things in space are real, and according to Kant, dream and reality differ by their connection: by whether the representations combine according to rules into an experience. He calls the concept of the noumenon, the thing in itself, a “limiting concept” that is only of

negative use (A 255/B 310 f.): it is meant to curb the presumption of sensibility, not to describe a second world. Kant expressly distinguishes this limit from a limitation, a mere negation. We know the limit because we know that our intuition is sensible and we can at least think of another, non-sensible one.

What Kant saw is that cognition is active and brings something of its own to what it finds - the finding of Chapter 3 - and that a reason that does not check its limits becomes entangled in contradictions. The book also stands close to him where it rejects the comparison across the abyss and distinguishes reality from deception by the connection of experience (Chapters 8, 10.4, 10.5). On the given, it stands closer to Kant than to Hegel. Thinking does not produce what it checks itself against; something must show itself that does not yield to our wishes (Chapters 10, 11). The book preserves Kant's sentence "Thoughts without content are empty, intuitions without concepts are blind" (DE: „Gedanken ohne Inhalt sind leer, Anschauungen ohne Begriffe sind blind") (A 51/B 75) in the form of resistance. Hegel rejected it in his logic as far as the concept is concerned, but holds that philosophy owes its development to the empirical sciences.

Kant also demonstrated the procedure by which Chapter 7 resolves the contradiction of the stick in the water. His antinomies are pairs of propositions about the world as a whole - for instance, that it has a beginning in time and that it has none - which contradict each other and yet both seem provable. Kant shows that the contradiction hinges on a tacit assumption about the object: that the world as a whole is a thing in itself. Once the assumption falls, the contradiction turns out to be an illusion, and Kant can explain why both sides seem necessary. The same holds for the stick: "straight" is true of the stick, "broken" of how it looks in the water, and the refraction of light explains why it looks that way. Hegel took up this procedure from Kant and gave it a new turn. For him the contradiction hinges on the determinations that we think, rather than on an object of which we know nothing, and its resolution is the advance to a richer determination. The book comes closer to this version where the contradiction lies in the thing itself and drives it forward: in a concept that cannot be determined without contradiction (Chapter 11.2), or in a worldview that can no longer bear its inconsistencies (Chapter 15.3).

What the book does not take over is the conclusion that the forms are therefore only ours and that the limit is fixed in advance. Chapter 10.6 engages with this objection in its strongest form. The weaker form, which the chapter rejects earlier - that one knows the limitation through a comparison with the true thing - is not Kant's; he ruled it out with the limiting concept itself. The book takes up Kant's own answer, that the limit is known because we can at least think of another kind of cognition, as follows: it grants that the thing can be more than our picture

of it. What it denies is that one can fix in advance what remains closed to us in principle: a cognition of which we know nothing except that it is not ours provides no measure for that, any more than an error that could show itself in no way at all could be distinguished from truth.

What remains disputed is the question that occupied Kant most: how judgments that say more than the single experience - about causes, for instance - can hold universally and necessarily. Kant looks for necessity in conditions that are fixed prior to all experience. The book looks for it in the reasons that can be given and must prove themselves. That is less than Kant claimed, but no renunciation of necessity: Kant too has reasons for his necessity, an argument about the conditions of experience, and geometry showed that one did not know in advance how the space of things is built (Chapter 10.6).

The book owes Kant thanks at another point as well: the concept of a natural end - an organized being of inner purposiveness that, unlike a product of art, does not have its end outside itself - underlies the stages of purposiveness in Chapter 13.2 (*Critique of the Power of Judgment*, §§ 64-66).

A9 After Kant: Validity Instead of Agreement

A century after Kant, philosophers who built on his work drew from his limit a conclusion that he himself had not drawn. Hermann Lotze laid out the argument in his *Logik* (1874): everything we know of the external world, we have in representations. Whether the whole of our representations is true therefore cannot be decided by comparing it with a reality that itself becomes known to us only in representations. For Lotze, what distinguishes a true sentence is not some being alongside the sentence but its validity. A true sentence holds whether anyone thinks it or not; that someone thinks it is a process in a head, that it holds is not.

Wilhelm Windelband, who had earned his doctorate under Lotze, stated the consequence openly in 1881, in his essay marking the centenary of Kant's Critique. Since we can never compare anything but representations with representations, the concept of truth can no longer mean an agreement of representations with things: "it reduces to the agreement of the representations among one another." (DE: „er reduziert sich auf die Übereinstimmung der Vorstellungen untereinander") That is the coherence theory in a single sentence, a quarter century before Joachim. But because even a delusion can agree with itself, Windelband needed a measure of which agreement counts. He found it in a norm. What is true is what is connected as it ought to be connected: the way a consciousness would

judge that follows not the accident of its own situation but only what holds for all. This “normal consciousness” is not a human being who exists somewhere, but the measure against which each person measures his own judging. Logic thereby becomes, as with Christoph Sigwart as well, a normative science: it does not describe how people actually think but says how they ought to think if they seek the truth.

Three things are seen here, and the book takes them up. First: the comparison across the abyss does not take place; we have no standpoint beside our representations from which we could hold them up against things (Chapter 10.3). Second: whether a judgment holds is a different matter from whether and how someone makes it. That is why reasons cannot be disposed of by the history of their origin. Third: the search for truth stands under an ought. Anyone who checks follows rules that are not his private affair, and anyone who refuses justification on principle excludes himself from the shared search (Chapters 15.2, 20.4).

What the book does not take over is the route by which they arrived at coherence. They came to it because correspondence had foundered on the thing in itself: they kept the picture of thought here and thing there, and when the thing proved unreachable, only one side was left. But along with the thing in itself they also gave up something that does not lie beyond at all. Among the representations themselves there are some that impose themselves and cannot be removed by any wish or any reinterpretation. The empty pocket is also a representation, but one that does not give in (Chapter 10.7). What they lack is the category of resistance. With it, correspondence regains within experience what it had lost beyond it: the real comparison runs between thought and perception, between the modes of access that support or correct one another (Chapter 10.4). “Agreement of the representations among one another” (DE: „Übereinstimmung der Vorstellungen untereinander“) is then right if it is understood to include agreement with what does not yield; that is how Blanshard later put it (section B4). Without resistance, the norm says that one should connect correctly, but not which representation must give way when two contradict each other.

What remains open is how far Lotze’s term carries. For the number, the norm, and what does not exist, correspondence theory lacks an object one could encounter (section B3). That a sentence holds without anything encountered corresponding to it is perhaps the more exact description of these cases. Whether validity and resistance turn out there to be two names for the same experience - namely, that the truth of a sentence is not ours to dispose of - is a question this book does not decide.

A10 Constructivism: We Create Our Reality

Heinz von Foerster called objectivity a subject's delusion that it could observe while leaving itself out. Ernst von Glasersfeld proposed speaking of "viability" instead of "truth": our knowledge fits reality as a key fits a lock, opening it without depicting it. What is right about this is that there is no cognition without the activity of the one who cognizes: even seemingly immediate experience is already mediated.

Chapter 3 reaches the same finding by its own route. And Glasersfeld himself saw the limit that is often held against him: only what does not fail is viable, and failure shows that we do not construct arbitrarily. This is exactly where checking by resistance comes in. The resistance on which constructions fail shows what correspondence means: the judgment must conform to the thing, not the thing to the judgment (Chapter 10.4).

What remains disputed is what follows from failure. For Glasersfeld, we learn about reality only where it does not let us through, without gaining a picture of it. The elephant principle says more: where many independent paths fail at the same points and get through at the same points, a picture of the thing emerges, and this picture can prove itself or be corrected (Chapters 5, 10.6). Whether one calls that knowing reality or an ever better fit makes almost no difference when checking single judgments. It becomes important where the fit is taken to imply that nothing can be learned about reality except its No.

A11 The Linguistic-Pragmatic Turn: Wittgenstein, Austin, Strawson

Truth as a Language Game

Ludwig Wittgenstein shifted attention from the word to its use. On this view, "true" is not the name of a hidden property but a word that plays a role in our language games. We learn what it means by learning how it is used. For a large class of cases, he says, the meaning of a word is its use in the language (*Philosophical Investigations* § 43).

John L. Austin showed that some sentences do not describe but perform something. "I promise …" does not report a promise; it makes one. In the lectures *How to Do Things with Words* (delivered 1955, published 1962) he went on to show that even what seems to be mere stating is an act that can succeed or fail. The

step to truth itself was taken by Peter F. Strawson (1949): "It is true that …" (DE: „Es ist wahr, dass …"), he argued, does not describe a sentence but endorses it - it is a doing, like agreeing. Austin disagreed with him in 1950 and held on to correspondence with the facts.

Both saw something: Strawson, that "true" in use is a doing; Austin, that this doing is measured against something it does not itself make. The performative view needs both, and it widens the view: not only is saying "That is true" a performance; searching, checking, and rejecting also follow recognizable rules.

The Rules of the Truth Game

Chapter 15.2 describes the same rules as the institution of science. Anyone who holds something to be true must be able to give reasons. Different legitimate perspectives must be taken into account. Conflicts must be fought out and resolved, not passed over. Everything must fit together. And no position is immune to better arguments.

Wittgenstein would have spoken of the grammar of the word "true," Strawson of the act of endorsing, Austin of what can make this act fail.

A12 Heinrichs: The Fourfold Concept of Truth

The German philosopher Johannes Heinrichs (b. 1942) has defined truth entirely in terms of speaking. For him, a connection of thoughts is not yet true or untrue; only what one person posits in relation to another is: "Only with the pragmatic positing, the assertion, and everything in speech acts that builds reflexively on it, can one speak of truth and untruth" (DE: „Erst bei der pragmatischen Setzung, der Behauptung und allem, was an Sprechakten auf ihr reflexiv aufbaut, kann man von Wahrheit und Unwahrheit sprechen") (*Sprache*, vol. 3, p. 299). Truth↑ then means the "sum total of the implicit norms of linguistic action, though with regard to their cognitive content" (DE: „Inbegriff der impliziten Normen des sprachlichen Handelns, allerdings im Hinblick auf ihren Erkenntnisgehalt") (ibid.). Because all speaking relates at once to a subject matter, to the speaker himself, to the hearer, and to the shared context of meaning, this norm has four sides: correctness with respect to the subject matter, the sincerity of the speaker, responsibility toward the hearer, and coherence (pp. 304-320). What is new here, by his own account, is that sincerity and responsibility are counted as part of truth (p. 321). Not everything that is accurate can be said everywhere; when and

how a doctor tells a terminally ill patient about his condition concerns, according to Heinrichs, not only tact but the truth of the communication itself (pp. 311 f.).

What section B12 shows about the theories - that each has made one side of truth the measure of the others - Heinrichs maintained long before this book: by his own account, first in threefold form in an essay he wrote in 1973/74 that appeared in 1975, in fourfold form in a lecture of 1975, and elaborated in his *Sprachtheorie* of 1981. "To declare a single one of the dimensions distinguished of truth to be the sole authoritative and defining one would be just as mistaken as raising a single dimension of language to the dimension of language" (p. 320). For him, agreement with the subject matter is the side that correspondence theory saw, coherence the side that coherence theory saw, and responsibility before the hearer the legitimate moment of consensus theory. At about the same time, Jürgen Habermas, in his essay "Wahrheitstheorien" (1973), distinguished four claims that all speech raises: comprehensibility, truth, rightness, and sincerity; he calls only one of them truth, the one that applies to assertions (section B6). Older than both is the statement that the true is the whole, in which the one-sided determinations have their place; it appears in the preface to Hegel's *Phenomenology of Spirit* (1807; Appendix B4). Heinrichs himself cites it, as the name for the highest level of coherence, and in doing so refrains from "the quasi-theological implications of the talk of 'the' truth" (DE: „die quasi-theologischen Implikationen der Rede von ‚der' Wahrheit") (p. 317).

> DE: „Eine einzige der unterschiedenen Wahrheitsdimensionen zu der allein maßgebenden und definitorischen zu erklären, wäre genauso verfehlt, wie eine einzige Sprachdimension zu der Dimension der Sprache zu erheben"

Heinrichs also saw why coherence cannot absorb the other sides. Truth, he says, includes "the perceiving of the *facta bruta*" (DE: „das Wahrnehmen der facta bruta"), of what is fateful and underivable (p. 321); from the other sides it draws "the character of palpability, underivability, historicity, and surprise" (DE: „den Charakter der Handgreiflichkeit, Unableitbarkeit, Geschichtlichkeit und Überraschung") (p. 320). And because truth includes this receptivity to what is given, even the "most unanimous consensus" cannot produce it (p. 317).

Here the book is on his side. What Heinrichs calls *facta bruta* is, in this book, resistance (Chapter 10.7); what he says against consensus is said in section B6; and his answer to the question of unconditional truth - that it exists, "but as human only in conditioned-historical realization" (DE: „aber als menschliche nur in bedingt-geschichtlicher Verwirklichung") (p. 323) - is the known truth of Chapter 20.2, which is whole but not the last.

What is not adopted is the widening of the word. In this book, “true” means the same thing everywhere; what differs is what it is checked by (Chapter 12.1). Whether a letter means what it says is a separate question to put to it (Chapter 13.3), and whether one may tell a terminally ill person a truth now is a question of action. Heinrichs objects that without the practical sides truth cannot be “distinguished from ideology, because this is something other than theoretical falsity, namely practical untruth” (DE: „nicht von Ideologie unterscheiden, weil diese etwas anderes ist als theoretische Falschheit, nämlich praktische Unwahrheit“) (p. 322). The book recognizes ideology by what it does to checking: anyone who deceives must obstruct it (Chapters 16.3, 17). And what Heinrichs calls the truth of a communication belongs where the book speaks of the truth of the thing, in the sense in which a friend is a true friend: whether a communication is what a communication ought to be (Chapter 20.2). This second truth arises from the first. A sentence that is accurate and yet spoken at the wrong time remains true; what goes wrong is the saying.

It remains open how far apart the two accounts are. Heinrichs himself distinguishes what a sentence says from what someone does with it; it is only that he wants to call both truth. Where he writes that a foreseeably destructive truth, once spoken, is “no truth” (DE: „keine Wahrheit“) (p. 313), he means the speaking, not the content, which remains as “factual-logical truth” (ibid.). In that case, what separates the two is less the matter than the word.

A13 The Analytic Refinements: From the Truth Predicate to Truth Pluralism

Analytic philosophy in the twentieth century worked on the question of truth with a precision the older theories lacked. Some of its results belong here, because each grasps a single moment more sharply.

Tarski: Precision for the Formal Special Case

In the 1930s Alfred Tarski showed how an exact truth predicate can be defined for formal languages. His famous schema looks trivial at first glance: “Snow is white” is true if and only if snow is white. But behind the apparent triviality lies a rigorous construction: truth is always defined in a metalanguage for an object language, and this layering defuses the old liar paradox (“This sentence is false”

(DE: „Dieser Satz ist falsch“)), on which careless definitions of truth break down. Tarski himself understood his schema as a precise version of the old Aristotelian answer.

The legitimate moment: where languages are built exactly - in logic and mathematics - truth can be grasped exactly. Tarski himself drew the limit: for natural languages, which can speak about themselves, his definition is not to be had. And it says nothing about the practice of searching for truth - it defines the predicate, not the process.

Here Tarski’s precision serves as a tool for the formal special case. Everything else requires the practice from which his definition abstracts.

Deflationism: The Thin Predicate and the Dense Practice

Even before Tarski, Frank Ramsey (1927) had noticed that “It is true that it is raining” (DE: „Es ist wahr, dass es regnet“) says no more than “It is raining.” After Tarski, Quine and later Paul Horwich (*Truth*↑, 1990) turned this into a theory: the truth predicate, they held, is not a deep property but a practical tool - useful above all for generalizing (“Everything she said is true” (DE: „Alles, was sie gesagt hat, ist wahr“)), where one cannot repeat the sentences one by one.

The legitimate moment is larger than it first appears. Deflationism shows that truth is not stuck onto sentences like an external label, and so it comes close to the performative view - Horwich explicitly linked his doctrine to a theory on which the meaning of a word lies in its use. If the word “true” adds nothing to asserting, then everything substantive that can be said about truth lies in the practice of asserting: in checking, justifying, withdrawing. That is exactly where the field of the performative view lies.

What deflationism does not also explain is this practice. Why do we check assertions? Why do we withdraw some in shame and defend others against all resistance? The predicate may be thin; the game in which it is used is dense. For the deflationist, that is a question for the practice, not for the word - and it is exactly this question that is asked here.

Truthmakers: Resistance Gets a Name

Truthmaker theory, developed by David Armstrong among others (*Truth and Truthmakers*, 2004), asks in the opposite direction: what in the world makes true sentences true? That the table is brown makes the sentence “The table is brown” (DE: „Der Tisch ist braun“) true - truth rests on being; it does not float free. This

is the correspondence moment in its most honest form: truth is not arbitrary - something must bear it.

Difficulties arise at the same points as with the old correspondence theory. What makes “There are no unicorns” (DE: „Es gibt keine Einhörner“) true, and what makes “Seven is a prime number” (DE: „Sieben ist eine Primzahl“) true? For negative sentences Armstrong assumed special totality facts, but whether such proposals are convincing is disputed among truthmaker theorists themselves. We know one answer from the chapter on the comparison that is no comparison: the truthmaker makes itself known in experience as resistance - as what opposes our interpretations, without our ever being able to step beside our experience to inspect it directly. Whether, for numbers and for what does not exist, this is more than another name for the difficulty is not thereby decided.

Alethic Pluralism: The Analytic Neighbor of the Domains

Since the 1990s, Crispin Wright (*Truth and Objectivity*, 1992) and later Michael Lynch (*Truth as One and Many*, 2009) have developed alethic pluralism: truth works differently in different domains. A sentence of physics is true in a different way from a moral one, a mathematical one in a different way from an aesthetic one - and yet we use the same word everywhere because, on their thesis, truth plays the same role everywhere.

This overlaps closely, but not entirely, with the chapter on the domains of reality (Chapter 12). The book does speak of different forms of truth, but by this it means different ways in which a judgment proves itself and can be checked. It does not say that “true” denotes a different property in different domains; closer to it is the second half of the thesis, the one concept. Whether the difference between different proving and different truth holds up in the end or dissolves is the question on which this neighborhood remains open.

A Methodological Neighbor: Bayesian Calibration

Finally, a neighbor from methodology belongs in this series: Bayesian probability calculus. It makes mathematically precise what we developed as graded certainty and calibration: beliefs come in degrees, and new clues shift these degrees according to traceable rules - strong clues strongly, weak ones weakly. The Bayesian is the detective with a slide rule.

The legitimate moment: where degrees of certainty can be put into numbers, the calculus exposes errors of reasoning that escape intuition - for instance the

notorious neglect of base rates. What the main text develops as the economy of checking, base rate and the source's track record, is the everyday form of this calculus, whose mathematics the Bayesian works out. The stakes, that is, what is at risk if one is wrong, belong not to the calculus itself but to decision theory, which complements it. The limit: the calculus does not say where the first probabilities come from. These starting values must be set by judgment - and with that the art of calibration, which no formula can do for us, begins again. And the calculus works with the clues that are before it; what was left out and therefore never entered the calculation shifts no degree (Chapter 19.5).

A14 Critical Theory: Truth and Liberation

What Horkheimer and Adorno Saw

In 1937 Max Horkheimer distinguished traditional theory, which does not reflect on its own place in society, from a critical theory, which knows itself to be part of the conditions it investigates and aims to change them. With Theodor W. Adorno, in *Dialectic of Enlightenment* (1944/1947), he showed how a reason that only calculates means can become an instrument of domination. "There is no right life in the wrong one," (DE: „Es gibt kein richtiges Leben im falschen") Adorno writes in *Minima Moralia* (1951). The sentence presupposes a standard by which life becomes recognizable as wrong: a right life that cannot be lived under wrong conditions. Truth↑ and liberation are connected.

Why the Search for Truth Liberates

Chapters 16 and 18.5 reach the same point by a different route. Anyone who honestly searches for truth treats people as subjects capable of knowledge instead of manipulating them. He works with open arguments instead of secret doctrines, remains open to correction, and wants everyone to be able to follow what he asserts instead of claiming authority. Each of these traits has its mirror image in a form of oppression that it rules out.

Systems that base their power on ignorance must therefore obstruct checking, for every successful check shows what that power rests on.

What Remains and Where This Book Goes Further

With Critical Theory, the book maintains that truth is not neutral, and that a reason that only calculates means can serve domination. Here liberation appears not as a goal that truth would have to serve, but as a consequence of checking itself. What remains is the suspicion that *Dialectic of Enlightenment* directs at all reason, including the reason that checks: that it can turn into domination. The book takes this seriously: Chapter 17 describes how checking is obstructed in the name of truth and how the principles themselves are inverted (21.5), and it answers with self-application. That is no guarantee.

A15 What Each Position Has Seen

The Moments and Their Absolutization

Each of the positions has seen a real moment of the search for truth: correspondence theory the resistance of reality, coherence theory the interconnection, pragmatism the proving, consensus theory joint checking, Kant the forms that knowing itself brings with it, constructivism the activity of the knower, linguistic pragmatics the performance, the analytic refinements the sharpness of the individual moments, and Critical Theory the connection between truth and liberation.

None of these positions is merely an error, but in several of them something is rejected: in correspondence theory, the laying of thought and thing side by side; in coherence theory, truth in degrees; in pragmatism and consensus theory, the idea that proving or agreement makes something true; in Kant, the conclusion that the forms are only ours; in constructivism, the conclusion that nothing is to be learned of reality except its No. What remains is the phenomenon each one saw; what falls is the claim that a single moment of checking is the measure of the others. Johannes Heinrichs (section B9a) has, by his own account, maintained such an ordering of the theories since 1975; he assigns them to the sides of speaking, this book to the moments of checking. The old answer, that a judgment is true if it says what is, is not affected by this: it names no moment of checking but what all the moments aim at.

Why This Is Not Eclecticism

It would be eclectic to take a piece from each theory and lay the pieces side by side. Here each is measured against the same question: what moment of the search for truth it saw, and what it concluded from it. The moment remains because everyone who checks performs it; the conclusion falls where it founders on this performance.

Why This Is Not a Quest for Harmony

The long disputes arose because each position exposed a real difficulty in the others. Correspondence↑ theorists rightly asked: "How do you know that your coherence is not just a beautiful fantasy?" (DE: „Woher wisst ihr, dass eure Kohärenz nicht nur schöne Fantasie ist?") Coherence↑ theorists rightly asked: "How do you propose to step outside your consciousness to make this comparison?" (DE: „Wie wollt ihr aus eurem Bewusstsein heraustreten für diesen Vergleich?")

Both questions are legitimate, and both worries can be dispelled, but only if neither side is struck out (Chapter 10). The agreement this leads to is not a negotiated result. No theory was granted anything to placate it. Each was asked what phenomenon it saw - and the phenomena fit together because they are moments of one process. Insofar as each of these theories seeks the truth, their proponents can come to agree by following the same path. Where they do not yet agree, a question remains open that is to be decided on the matter itself.

A16 The Elephant Principle Applied to the History of Philosophy

The Parallel

The history of philosophy is like the story of the six blind scholars who feel different parts of the elephant. The thinkers who have had their say here have - like all of us - only limited access: each describes what he has discovered, each easily takes his part for the whole, and a dispute arises over who is right.

The resolution is the same as in the story, and it is twofold. All are right: each about what he has felt. And none is right insofar as he takes his description to be the only correct one and excludes those of the others. Only with both is the real question posed: in what respect do the descriptions fit together? Chapter 5

showed what decides this - that there is an elephant to which all of them refer - and Chapter 8 showed what becomes of what does not fit: observations are saved, interpretations can be rejected.

The Elephant

As in the story, there is an elephant here too, and everything depends on it: the structure of the search for truth, which everyone who checks one of these theories enacts, like it or not.

This structure is built into everyone who checks, at all times; its explicit cultivation, by contrast, is hard-won and can be lost (Chapter 5).

Testing Its Own Method

With this, the performative theory applies its method to itself. It demands that different perspectives be integrated, and it integrates those of the history of philosophy. Whether it has succeeded can be checked against this appendix: by whether each position appears here in a form its proponents would recognize, and whether what is rejected is rejected for reasons they would have to accept.

A17 Practical Consequences: From Dispute to Cooperation

For Understanding the History of Philosophy

Read this way, the classics become collaborators on a shared task, and the quarrel between schools becomes a division of labor. Even positions regarded as outdated keep what they saw. What is outdated about them can then be stated more precisely.

For the Current Debate

Instead of asking “Which theory of truth is right?” (DE: „Welche Wahrheitstheorie ist richtig?“), one can ask: “Which aspect of truth does this position rightly stress, and what does it conclude from it that does not hold?” (DE: „Welchen Aspekt der

Wahrheit betont diese Position zu Recht, und was schließt sie daraus, das nicht trägt?“)

This makes discussions more fruitful. Before refuting the other person, one asks what they have seen - what is then refuted is what remains, and the refutation is more precise.

Against Philosophical Camp Warfare

As in politics, so in philosophy there is camp thinking: “analytic” versus “continental,” “realists” versus “anti-realists,” “naturalists” versus “hermeneuticists” - as if one had to choose a side. On closer inspection, some of these oppositions turn out to be different sides of the same thing; others are genuine points of dispute that must be decided by looking at the thing itself. Which is the case is shown not by the labels but only by checking.

A18 The Tradition as a Living Resource

What This Survey Achieves

The performative theory of truth has to submit to checking here like any other position, instead of acting as an umpire above the dispute. What sets it apart is its starting point: it begins with the enactment that all theories rely on when they refute one another. That is why it can measure each of them against what that theory has seen and against what it fails to explain. Where the account does not add up, a question remains open - some are named above.

The Living Tradition

Tradition is not a museum. Each generation has to think the old questions through anew, but it does not have to start from scratch: the tradition offers tested partial answers, together with the reasons they stood the test, and the points at which they failed. Anyone who reads them this way takes them neither as authority nor as a list of errors, but as fellow checkers.

The Task

If it can be shown that two and a half millennia of dispute about truth were not wasted effort but an exploration of different moments of the same thing, then that is also a contribution to a culture of conversation that is splitting into camps. Without appeals, this contribution consists in first looking for what the other person has seen, and then disagreeing more precisely.

Some objections are aimed less at a particular theory of truth than at systematic ordering itself: Adorno's objection from the nonidentical, the objections of Deleuze, Derrida, and Foucault, and Rorty's farewell to knowledge as the mirror of nature. That is why they are not here. *Thinking – Ordering Without Losing* (2025) presents them in its appendix in their own form.

Further reading: *Thinking – Ordering Without Losing*, Appendix A2

APPENDIX B: THE SEARCH FOR TRUTH AND HEGEL'S LOGIC - A MUTUAL ILLUMINATION

B1 Why This Appendix?

The main text develops its thoughts without appealing to philosophers. Where a philosopher is named, the name was added afterward, as a pointer to who had already arrived at the same thought, and it contributes nothing to the argument. That was methodologically necessary: a book that sets out to show what you already do when you check cannot rest on someone you would have to take on trust.

Looking back, the main text and Hegel's *Science of Logic* nonetheless illuminate each other. Hegel legitimizes nothing here. The comparison shows where two very different paths - one systematic and speculative, the other performative and practical - come upon similar structures, where this text has taken things over from Hegel, and where the two part ways.

B2 The Three Stages: Being - Essence - Concept

Hegel's logic has three parts: the doctrine of being, of essence, and of the concept. The course of the main text can be read roughly along this sequence. That does not yield a chapter-by-chapter mapping, since the book follows its own order. But the movement from immediacy through mediation to self-determination is found in it again.

Logic of Being: Immediate Experience

For Hegel, being is the immediate, what simply is and is encountered first: quality, quantity, measure. The thing with its properties does not come until the doctrine of essence. The main text, too, begins with something immediate: with the checking that is already under way while one reads (Chapter 1), and with the presuppositions that cannot be gotten behind (Chapter 2). In both cases, what seems self-evident turns out to be more tangled than it looked.

This sheds light on an old difficulty at the beginning of the logic. Hegel's beginning with pure being is often read as if it presupposed a unity of thinking and being that would call for a special access - an "intellectual intuition." Hegel himself rejected this reading: an intellectual intuition, taken as the first, is, he says, in its pure immediacy nothing other than being (*Encyclopaedia* § 86, Remark). The standpoint at which the logic begins is one he has worked out first, in the *Phenomenology of Spirit*; in the *Encyclopaedia*, the Preliminary Conception leads there. The beginning itself, according to him, is made by the "resolve to want to think purely" (DE: „Entschluß, rein denken zu wollen") (§ 78, Remark), which, however, as § 17 says, concerns only the person who begins, not the science (*Hegel's Logic – Logic of Thinking* (2026), Ch. 14). Seen from this book, this can be put in sober terms: what stands at the beginning is not an intuited first but the enactment of checking, which cannot be gotten behind - one is always already engaged in distinguishing between true and false. The "identity of thinking and being" (DE: „Identität von Denken und Sein") is then not a presupposed unity. It means that the separation of inner and outer is itself a distinction within experience (Chapter 10), one that becomes differentiated into objectivity only through resistance. Read this way, the beginning needs no intuition of an absolute, only the enactment that becomes transparent to itself.

Logic of Essence: The Structures of Reflection

For Hegel, essence is the mediated, what "shines in itself": identity and difference, ground and consequence, inner and outer, possibility and actuality. None of these determinations is anything on its own; each is what it is only through its relation to the other. In the main text, most of the chapters correspond to this, in the book's own order. Chapter 3 leads from the apparent immediacy of perception to its mediation, Chapter 5 unfolds the different perspectives on the same thing, Chapter 7 contradiction as the impetus for knowledge, Chapter 8 the demand that everything must fit together, and in Chapter 10 coherence and

correspondence come together. What both texts have in common is that they let no determination stand on its own.

The closeness is clearest in the problem of correspondence. In Chapter 10, "inner" and "outer," "thinking" and "being" are not ready-made opposites that a bridge would first have to span. The question "How do we get from thinking to reality?" (DE: „Wie kommen wir aus dem Denken zur Wirklichkeit?") arises only if one presupposes that the two are separate. But the distinction is gained within experience, from what does not yield to wishing. What is produced in the process is not the world, but our knowledge of what belongs to us and what follows its own laws. Hegel puts the unity of inner and outer in the sentence: "What is inner is also present outwardly and vice versa" (DE: „Was innerlich ist, ist auch äußerlich vorhanden und umgekehrt") (*Encyclopaedia* § 139). The counterpart in the main text is that the thing does not lie behind the perspectives but shows itself in them, and that the truth lies in their integration (Chapters 5, 10).

Logic of the Concept: Self-Determination

For Hegel, the concept is what determines itself and remains with itself in its other; the doctrine of the concept leads through subjectivity and objectivity to the idea. The chapters that come closest to this are those in which checking takes itself in hand: science as checking that has become method (Chapter 15), calibration as one's own power of judgment (Chapter 19), and the application of the principles to the text itself (Chapter 21). In both texts, the path leads from mere reaction through mediated relation to self-determination.

The doctrine of the concept ends with the idea, and for Hegel the idea is "the true": the unity of the concept with its objectivity (*Encyclopaedia* § 213). There, truth in a deeper sense means that a thing corresponds to its concept, as when we speak of a true friend whose conduct accords with the concept of friendship (§ 24, Addition 2). The main text uses the same image (Chapters 12.3, 20.2) and arrives at this sense through a reversal that starts from checking: once an order has been found, the thing too is measured against its concept. Hegel starts from the thing and calls this sense the deeper one; what is usually called the truth of a judgment, its agreement with the thing, he calls correctness, the "formal agreement of our representation with its content" (DE: „formelle Übereinstimmung unserer Vorstellung mit ihrem Inhalt") (§ 172, Addition). This is not a contradiction, for the two senses are connected: the judgment "Hamlet is a great drama" (DE: „Hamlet ist ein großes Drama") is true if the play is what a drama ought to be. This deeper sense stands behind the statement that the true is the whole (C.4).

Hegel's objectivity, moreover, is not material of experience but the concept in the form of objects, in mechanism, chemism, and the purposive relation; only in the purpose does the object confront the concept as a counterpart. That an order must prove itself against what it orders has its place in Hegel here.

B3 Key Themes in Detail

Shining and Reflecting

In the logic of being, according to Hegel, the determinations "pass over" into one another: one vanishes when the other arrives. In the logic of essence they "shine" into one another. Each is preserved and shows itself in its other. Chapter 10 gives an example. There, coherence and correspondence do not replace each other. What looking and seeing for oneself shows holds only in the context to which it belongs, and the context is checked against looking and seeing for oneself. Each of the two shows itself in the other, and neither vanishes in it.

Appearance and Actuality

Hegel develops the relationship in three steps. First, the essence seems to be hidden behind the appearances. Then it turns out: "The essence must appear" (DE: „Das Wesen muß erscheinen") (*Encyclopaedia* § 131) - an essence that does not appear is not an essence. Finally, "what is higher than mere appearance" (DE: „das Höhere als die bloße Erscheinung") is actuality (§ 131, Addition), the unity of essence and existence, of the inner and the outer (§ 142).

The main text takes a similar path. At first one looks for the "actual truth" behind the perspectival appearances. Then it turns out that a truth that in principle could not show itself could not be searched for: what the search wants to find must be able to show itself. And truth takes shape in the opening up of what shows itself. That is why atoms, genes, and fields are not a hinterworld behind the appearances. They are what shows itself in them - in measurements, interventions, and predictions that succeed or fail. Whether they are more than an order of the field of appearance is decided by the investigation, not by a ruling in advance (Chapters 10.6, 15.1).

The Three Forms of Justification

In the logic of essence, in the section on ground, Hegel distinguishes three stages. The formal ground repeats the thing under another name: ground and grounded have the same content. The real ground names something else, but picks out one determination among many without saying why it should be precisely this one. The complete ground contains both at once: it names something else and, in addition, the relation through which precisely this is the ground. The stages thus ascend from empty through incomplete to fulfilled justification. The thing does not emerge until after this, in the doctrine of the condition: "When all the conditions of a thing are present, it enters into existence." (DE: „Wenn alle Bedingungen einer Sache vorhanden sind, so tritt sie in die Existenz.")

Examples from the main text: "The remedy works because it is effective" (DE: „Das Mittel wirkt, weil es wirksam ist") is formal. "That is true because this evidence speaks for it" (DE: „Das ist wahr, weil dieser Beleg dafür spricht") is real but incomplete. "These findings, obtained by independent paths, fit together, and none is left over" (DE: „Diese Befunde, auf unabhängigen Wegen gewonnen, fügen sich, und keiner ist übrig") is complete. The argument from authority - "because experts say so" (DE: „weil Experten es sagen") - does not belong on this ladder: it is a ground for believing something, often a good one, but not a ground of the thing (Chapter 19.4). A report that brings together the state of an entire field of research is an attempt at complete justification, and itself remains open to checking and improvement.

The resolution of the Münchhausen trilemma also touches on this gradation. The chain - sentence supporting sentence - gets no further than the real ground: each link names another, and none says why it is precisely this one that bears the weight. What Chapter 1 puts in its place is neither a chain nor a circle of sentences, but an enactment that cannot be disputed without being enacted, and that proves itself against the structure that arises from it. The image for this is the archway, which shares with Hegel's doctrine of the condition the point that only the conditions together bear the load. The thought-movement at the beginning of *Hegel's Logic – Logic of Thinking* (2026) carries out the same gradation without Hegel's vocabulary and uses the same image for conditions that support one another (*Hegel's Logic – Logic of Thinking*, Ch. 7); there the image's limit is also noted: an arch stands on piers that it does not itself bear.

Sublation

The word has three meanings. Hegel himself stresses its "doubled sense": to preserve and to put an end to (*Science of Logic*, Remark on sublation). Lifting up is implied in both. What is true in the earlier stage is preserved; what is one-sided and limited is overcome. What remains enters into the more developed form.

The main text develops this as a method in Chapter 7, applies it in Chapter 14 to the conflict between feeling and understanding, and shows it in Chapters 10.10 and 15 in scientific revolutions. "False theories," too, are sublated in this way. With phlogiston, the observation of combustion is preserved, the wrong direction of explanation is overcome, and both are lifted higher in the theory of oxidation. With the epicycles, the good approximation to the observed orbits is preserved, the composition of the orbits out of circles is overcome, and both are lifted higher in Kepler's elliptical orbits.

B4 Methodological Convergences

Performative Self-Application

Hegel's logic applies its principles to itself. It is not just a theory about thinking; it practices what it teaches. The main text does this in its own way: the search for truth is enacted while it is being thought about, and in Chapter 21 the text checks itself against its own criteria. The performative beginning of the main text (Chapter 1) also has a forerunner in Fichte. In the *First Introduction to the Science of Knowledge*↑ (1797) he begins not with a proposition but with a summons to the reader: "Attend to yourself." (DE: „Merke auf dich selbst") Closer still to this beginning is the idea of performative self-contradiction that Apel worked out (Appendix A, consensus theory).

Development Instead of Definition

Hegel does not define his concepts in advance; he develops them. What a concept is shows itself as it unfolds. Nor does the main text begin with "Truth↑ is …". It starts from what you already do when you search for truth, and so goes from practice to the concept.

Systematic Completeness

In Hegel, every category is supposed to develop necessarily from the previous one, so that nothing is posited arbitrarily. The main text does not make this claim with the same rigor. It tries to justify each step from the previous one (Chapter 21.1), and where this does not succeed, it leaves the point open (Chapter 10.9).

"The True Is the Whole"

The sentence that Chapters 8.6, 13.6, and 16.4 use without naming its source comes from the preface to the *Phenomenology of Spirit* (1807), where it continues: *"Das Wahre ist das Ganze. Das Ganze aber ist nur das durch seine Entwicklung sich vollendende Wesen. Es ist von dem Absoluten zu sagen, daß es wesentlich Resultat, daß es erst am Ende das ist, was es in Wahrheit ist; und hierin eben besteht seine Natur, Wirkliches, Subjekt oder Sichselbstwerden zu sein."* ("The true is the whole. But the whole is only the essence completing itself through its development. Of the absolute it is to be said that it is essentially result, that only at the end is it what it is in truth; and in this precisely consists its nature, to be actual, subject, or self-becoming.") So Hegel himself reads the whole not as a sum but as development, and in this he meets Chapter 20.1. That is why, in his logic, each later determination is called the truth of the earlier one: it expresses more adequately what was meant by the earlier one. The earlier ones are untrue only when "held fast in their isolation for themselves" (DE: „in ihrer Isolierung für sich festgehalten") (*Encyclopaedia* § 83, Addition); as moments of the later one they remain in place. The formula in which Chapter 20.1 sums this up - that the true is the living, logically ordered, developing whole - is not Hegel's but a formulation of its own. The main text, too, grasps the whole as a movement in which knowing, and often what is known as well, develops, and calls what has been reached in it at any given point known truth (Chapter 20.2). For Hegel, the whole is the thing that is what it is in truth only as a result. In this the two agree: the true is not to be grasped as a finished stock but as a process in which it becomes what it is.

Bad and True Infinity

The two images that Chapter 20.3 uses to answer the treadmill objection take their names from Hegel's logic of being. Bad infinity is the endless one-more: the finite is surpassed, the surpassing repeats itself, and the infinite remains

a beyond that is never reached. True or genuine infinity is the movement in which something, in passing over into another, only comes together with itself (*Encyclopaedia* § 95), instead of running on without end. Hegel's image for the first is the straight line, for the second the circle bent back into itself. Chapter 20.3 takes from this what it needs for the search for truth: every insight reached is whole, not half, and yet not the last. In Hegel the concept belongs to the development of the categories, from which only the image and the distinction are taken over here. There the true infinite has nothing outside itself at which it would find its limit (*Hegel's Logic – Logic of Thinking* (2026), Ch. 2). The truth process to which Chapter 20.3 gives this name, by contrast remains open to what resists it from outside; what it shares with Hegel's concept is that every step is whole, not that nothing is still outstanding.

B5 Where the Texts Proceed Differently

Hegel: Systematic-Speculative

Hegel begins with the most abstract thought, pure being, develops his thought through immanent critique, and makes an encyclopedic claim to completeness; his language is technical, demanding and dense.

This Text: Performative-Practical

This text begins with immediate experience ("You are checking right now"), develops its thought by bringing the enactment to awareness, and focuses on practical relevance; its language seeks to stay close to everyday speech.

Hegel wants to show the systematic necessity of the structures; this text wants to show their practice.

B6 What We Can Learn from Hegel (Without Becoming Hegelians)

What can be taken over from Hegel without becoming a Hegelian is method. Contradictions↑ are to be taken seriously: not dismissed as errors but treated as what drives development - where things become really contradictory, that is

often the point where one gets further. This calls for patience, because insight comes not from quick definitions but from a development in which each stage has its due. The method must be applicable to itself, without special status for one's own position. That is why one sublates the justified moment in earlier positions. And behind all this stands the insight that nothing stands in isolation: what something is, is determined by its relations to other things, and the work consists in clarifying these mediations.

B7 What Hegel Could Learn from This Text

What Hegel could learn from this text concerns above all its form. A thought that can be put in understandable language can be checked by any thinking person along with the author, and truth then is no longer a matter for initiates. There is also the question of what good understanding does in life, a question that has its own right alongside systematic completeness. And Hegel thought of the whole as development; the idea, he says, is "essentially process" (DE: „wesentlich Prozeß") (*Encyclopaedia* § 215). At the same time his system claims to present this development completely; how far it thereby claims finality is disputed among his readers. The main text states explicitly that every order reached remains correctable through resistance (Chapter 20.2), and it shows the checks from which that order emerged.

B8 Conclusion: Mutual Illumination

That the two paths arrive at similar structures means little as long as one does not distinguish where the similarity comes from. Part of it is borrowed: the proposition that the true is the whole, the distinction between bad and true infinity, the word sublation, the stages of justification. These agreements confirm nothing, for by the standard of Chapter 19.4 a voice that copies from another is not a second voice. Matters are different with what the main text gains from the act of checking itself: that the division between inside and outside is drawn within experience, that one could not search for a truth that in principle could not show itself, that at the beginning there stands an enactment and not some first thing intuited. Where these thoughts meet Hegel's structures, that is an indication that both are working on the same matter. It is not a proof, if only because no one can say exactly how much tradition shaped by Hegel enters into

a way of thinking that believes it begins without him. Still, the paths diverge at points that can be checked, for instance in that the main text explicitly declares every order reached to be correctable, while Hegel's system claims to present the development completely (C.7). This tells against the idea that one path merely retraces the other.

The *Science of Logic* and the practice of the search for truth are thus two approaches to the same matter, which complement each other and at particular points correct each other. Anyone who has read Hegel finds here the practical application of structures that are developed abstractly there. Anyone who knows only this text can find in Hegel the systematic working-out of what is enacted performatively here. That is mutual illumination, not a circular proof.

Further reading: *Hegel's Logic – Logic of Thinking* (2026), especially the movement of thought at its beginning (*Hegel's Logic – Logic of Thinking*, Ch. 1)

APPENDIX C: EVIDENCE

Chapters 15 to 18 and 19 cite cases so that the thoughts become visible in something real. The cases do not prove them, but they should be accurate. Here are the sources. At the end comes the evidence for the sections in Appendix A on Pyrrhonian skepticism, on Kant and on Heinrichs.

On Chapter 15

Atoms. The measurements that arrived by different routes at the same number of particles were compiled, and in part carried out, by Jean Perrin: *Les Atomes*, Paris: Alcan 1913. Among the doubters had been the physicist Ernst Mach and the chemist Wilhelm Ostwald.

The quotation on new scientific truths: Max Planck, *Wissenschaftliche Selbstbiographie*, Leipzig 1948, p. 22.

Continental drift. Alfred Wegener put forward the thesis in 1912; it was accepted in the 1960s with plate tectonics, which explained the driving force.

On Chapter 17

Settlement of the Americas. The site of Monte Verde in southern Chile: Tom D. Dillehay, *Monte Verde. A Late Pleistocene Settlement in Chile*, 2 vols., Washington 1989 and 1997. The joint site visit of 1997 and its outcome: David J. Meltzer et al., "On the Pleistocene Antiquity of Monte Verde, Southern Chile" (DE: „On the Pleistocene Antiquity of Monte Verde, Southern Chile"), *American Antiquity* 62 (1997), pp. 659–663.

Extinction of the dinosaurs. On the tone of the dispute: Malcolm W. Browne, "The Debate Over Dinosaur Extinctions Takes an Unusually Rancorous Turn" (DE: „The Debate Over Dinosaur Extinctions Takes an Unusually Rancorous Turn"), *The New York Times*, January 19, 1988; Bianca Bosker, "The Nastiest Feud in Science" (DE: „The Nastiest Feud in Science"), *The Atlantic*, September 2018. On the

current state of research: Peter Schulte et al., “The Chicxulub Asteroid Impact and Mass Extinction at the Cretaceous-Paleogene Boundary” (DE: „The Chicxulub Asteroid Impact and Mass Extinction at the Cretaceous-Paleogene Boundary“), *Science* 327 (2010), pp. 1214–1218; Pincelli M. Hull et al., “On Impact and Volcanism across the Cretaceous-Paleogene Boundary” (DE: „On Impact and Volcanism across the Cretaceous-Paleogene Boundary“), *Science* 367 (2020), pp. 266–272. On impact and extinction occurring at the same time (within 32,000 years): Paul R. Renne et al., “Time Scales of Critical Events Around the Cretaceous-Paleogene Boundary” (DE: „Time Scales of Critical Events Around the Cretaceous-Paleogene Boundary“), *Science* 339 (2013), pp. 684–687, doi:10.1126/science.1230492; the authors consider it possible that the impact struck ecosystems that were already under stress. The model calculation on volcanism: Alexander A. Cox, C. Brenhin Keller, “A Bayesian Inversion↑ for Emissions and Export Productivity across the End-Cretaceous Boundary” (DE: „A Bayesian Inversion for Emissions and Export Productivity across the End-Cretaceous Boundary“), *Science* 381 (2023), no. 6665, pp. 1446–1451, doi:10.1126/science.adh3875.

On the professional consequences, according to Bosker (2018): the geologist Dewey McLean accused the leading proponent of the impact thesis of having worked against his promotion with the university administration, which the latter denied; the geophysicist Charles Officer complained that over twelve years *Science* had printed 45 papers for the impact thesis and only four on other hypotheses, a charge of favoritism that the editors rejected. McLean was later promoted after all; Officer withdrew from extinction research in 1994. Both sides appealed to Planck’s remark that new ideas prevail when their opponents die out (Courtillot for volcanism, Smit for the impact; cf. Chapter 15.3). The paper by Schulte et al. (2010), signed by 41 authors, was disputed by dozens of specialists in letters to *Science*; Bosker: “Science is not done by vote.” (DE: „Science is not done by vote.“) The article has been checked against the wording of the archived version.

The commissioned reply. The public statement of October 4, 2020 is known as the *Great Barrington Declaration*. The internal message from the director of the National Institutes of Health of October 8, 2020 (“three fringe epidemiologists” (DE: „three fringe epidemiologists“), “a quick and devastating published take down of its premises” (DE: „a quick and devastating published take down of its premises“)) was released in December 2021 in response to a freedom-of-information request.

Manufactured doubt. On the tobacco industry, see the evidence for Chapter 18. On climate: Naomi Oreskes, Erik M. Conway, *Merchants of Doubt*, New York

2010. In every assessment report the IPCC gives as a range how the climate responds to additional greenhouse gases and with what uncertainty.

Iraq. *The Report of the Iraq Inquiry*, London 2016, Executive Summary (inquiry report chaired by John Chilcot).

Press control in the GDR. The instructions came from the Agitation Department of the SED Central Committee; books required a printing permit from the Main Administration for Publishing and the Book Trade in the Ministry of Culture.

Cognitive warfare. On Chinese doctrine: the People's Liberation Army's regulations on political work, revised in 2003, with the "three warfares" (public-opinion, psychological and legal warfare); an account is given in Stefan Halper (ed.), *China: The Three Warfares*, study for the Office of Net Assessment of the US Department of Defense, 2013. On Russian doctrine: the Information Security Doctrine of the Russian Federation of December 5, 2016.

On the Western concept: François du Cluzel, *Cognitive Warfare*, NATO Innovation Hub, Norfolk, January 2021 (study conducted June–November 2020, sponsored by Allied Command Transformation; by its own account it does not represent the position of ACT or the member states); "The Human Domain of Operations refers to the whole human environment, whether friend of foe" (DE: „The Human Domain of Operations refers to the whole human environment, whether friend of foe") (p. 29; "of" as in the original); "Any user of modern information technologies is a potential target" (DE: „Any user of modern information technologies is a potential target") (p. 6); Bernard Claverie et al. (eds.), *Cognitive Warfare: The Future of Cognitive Dominance*, proceedings of the first NATO scientific meeting on cognitive warfare (Bordeaux, June 2021), NATO Collaboration Support Office 2022, including Eric Autellet, "Cognitive Warfare - Contribution of the French Armed Forces Deputy Chief of Defence" (DE: „Cognitive Warfare - Contribution of the French Armed Forces Deputy Chief of Defence"), chap. 1, pp. 1-1 f., on penetrating the adversary's minds and protecting one's own, p. 1-2 (French first version: *Cognitive Warfare: La guerre cognitique*, NATO-CSO, October 2021, chap. 3). The contribution on the pandemic: Dale F. Reding, Bryan Wells, "Cognitive Warfare: NATO, COVID-19 and the Impact of Emerging and Disruptive Technologies" (DE: „Cognitive Warfare: NATO, COVID-19 and the Impact of Emerging and Disruptive Technologies"), in: Ritu Gill, Rebecca Goolsby (eds.), *COVID-19 Disinformation: A Multi-National, Whole of Society Perspective*↑, Cham: Springer 2022, pp. 25–46, esp. pp. 26 and 43 (pages as given by Tögel, *Kognitive Kriegsführung*, chap. I).

A collection and critical interpretation of these texts: Jonas Tögel, *Kognitive Kriegsführung. Neueste Manipulationstechniken als Waffengattung der NATO*,

Berlin: Westend 2023, ISBN 978-3-86489-422-0, chap. I (section “Eine Veröffentlichung zu COVID-19 und dem Cognitive Warfare aus dem Jahr 2022”) and chap. VI (section “Wer steht im Visier des Cognitive Warfare?”). The reading that the concept is deliberately aimed at one’s own population as well is Tögel’s interpretation.

Resilience. The commitment of the allied states: *Strengthened Resilience Commitment*, NATO summit in Brussels, June 14, 2021, paragraphs 4–7 (“Resilience is a national responsibility and a collective commitment” (DE: „Resilience is a national responsibility and a collective commitment“), para. 4; “The COVID-19 pandemic has severely tested our nations and our resilience” (DE: „The COVID-19 pandemic has severely tested our nations and our resilience“), para. 6; “hostile information activities, including disinformation” (DE: „hostile information activities, including disinformation“), para. 7).

Netherlands. Report in *NRC Handelsblad*, November 15, 2020, on the army’s Land Information Manoeuvre Centre; letter from the defense minister to the Second Chamber of November 29, 2020 (temporary suspension, review by the ministry’s data protection officer).

Germany. From December 2021 the federal government’s crisis team for managing the coronavirus pandemic, based in the Federal Chancellery, was headed by Major General Carsten Breuer.

Platforms. On false reports spread by foreign states during the pandemic: European External Action Service, *EEAS Special Report: Short Assessment of Narratives and Disinformation around the COVID-19 Pandemic*, April 2020, and the reports that followed. Facebook introduced the rule of removing posts claiming that the virus was “man-made or manufactured” (DE: „man-made or manufactured“) on February 8, 2021 and withdrew it on May 26, 2021, “in light of ongoing investigations into the origin of COVID-19” (DE: „in light of ongoing investigations into the origin of COVID-19“). Court records on this: *Missouri v. Biden*, Federal District Court, Western District of Louisiana, order of July 4, 2023; in 2024 the Supreme Court dismissed the suit on procedural grounds (*Murthy v. Missouri*). Twitter’s internal documents were published from December 2022 onward as the “Twitter Files”. The letter from the head of Meta to the Judiciary Committee of the US House of Representatives is dated August 26, 2024.

The Interior Ministry paper. “Wie wir COVID-19 unter Kontrolle bekommen” , Federal Ministry of the Interior, March 2020, classified “VS - Nur für den Dienstgebrauch” (restricted, for official use only), section 4a “Worst case verdeutlichen!” (p. 13); forwarded to the Bundestag’s Interior Committee on April 8, 2020, and later made public through requests under the Freedom of Information Act (FragDenStaat). According to the federal government’s answer (Bundestag, hib

441/2021), scientists from various disciplines wrote it pro bono and on their own responsibility at the ministry's suggestion. The circle and the origin of the paper are described by one of its members: Heinz Bude, "Aus dem Maschinenraum der Beratung in Zeiten der Pandemie" , *Soziologie* 51 (2022), no. 3, pp. 245–255: founding of the circle by State Secretary Markus Kerber and Hanna Katharina Müller, head of the section "Politische Ordnungen und hybride Bedrohungen" (pp. 246 f.); "coining of rhetorical formulas" (DE: „Prägung rhetorischer Formeln") (p. 247); what was known and not known (pp. 247 f.); Bergamo, "strong justifications", Gramsci, "Flatten the Curve" (DE: „Flatten the Curve") and "Hammer and Dance" (DE: „Hammer and Dance") (p. 249); telephone conferences, participants, no minutes, release of the papers and the email correspondence by the RKI (n. 3), scenarios instead of predictions (p. 250); one million dead in the worst case of doing nothing, ten days of consultation, forwarding to the Corona cabinet at the end of March 2020 (p. 251). The later remark on "willingness to comply": panel discussion "Gesellschaft im Ausnahmezustand - Was lernen wir aus der Coronakrise?" with Heinz Bude, Alexander Bogner and Klaus Kraemer, University of Graz, January 24, 2024, recording on YouTube (uploaded February 27, 2024, https://www.youtube.com/watch?v=5j5WHi67-go); reported, among others, in *Apollo News*, March 21, 2024.

British advisory body. SPI-B, *Options for increasing adherence to social distancing measures*, March 22, 2020 ("The perceived level of personal threat needs to be increased among those who are complacent, using hard-hitting emotional messaging" (DE: „The perceived level of personal threat needs to be increased among those who are complacent, using hard-hitting emotional messaging")).

European Union. Digital Services Act (Regulation (EU) 2022/2065), Art. 22 (trusted flaggers).

On Chapter 18

The tobacco industry paper: Brown & Williamson, "Smoking and Health Proposal" (DE: „Smoking and Health Proposal"), 1969 ("Doubt is our product since it is the best means of competing with the 'body of fact' that exists in the mind of the general public").

> DE: „Doubt is our product since it is the best means of competing with the ‚body of fact' that exists in the mind of the general public"

On Chapter 19

Regional cultures of the United States. Colin Woodard, *American Nations. A History of the Eleven Rival Regional Cultures of North America*, New York 2011; older classifications arrive at similar numbers.

The incubator testimony. The hearing before the Congressional Human Rights Caucus took place on October 10, 1990. That the witness was the daughter of the Kuwaiti ambassador, and that the agency Hill & Knowlton, working for the organization Citizens for a Free Kuwait, had prepared her appearance, was made public by John R. MacArthur: "Remember Nayirah, Witness for Kuwait?" (DE: „Remember Nayirah, Witness for Kuwait?"), *The New York Times*, January 6, 1992; in detail in id., *Second Front. Censorship and Propaganda in the Gulf War*, New York 1992.

IPCC. The graded statements on evidence and agreement: Michael D. Mastrandrea et al., *Guidance Note for Lead Authors of the IPCC Fifth Assessment Report on Consistent Treatment of Uncertainties*, IPCC 2010.

On Appendix A: Pyrrhonian Skepticism

Sextus Empiricus is cited from the *Outlines of Pyrrhonism* (Greek *Pyrrhoneioi hypotyposeis*) by book and section; German translation by Malte Hossenfelder, Frankfurt am Main 1968.

Skepticism, equal strength, suspension, tranquility. The skeptic as an inquirer who keeps searching: I 3 and 7. Skepticism defined as the ability to set what appears and what is thought against each other: I 8; equal strength: I 10; the principle that every argument is opposed by an equally strong one: I 12; the skeptical formulas include themselves: I 14 f. The painter Apelles and the tranquility that follows suspension like a shadow: I 28 f.

Living by what appears. What appears as the guideline, and the fourfold conduct of life (the guidance of nature, the compulsion of the feelings, the handing down of laws and customs, instruction in the arts): I 21–24.

The five modes. I 164–169, their application I 170–177. Diogenes Laertius names Agrippa as their originator, *Lives and Opinions of Eminent Philosophers* IX 88; Pyrrho's journey with Alexander: ibid. IX 61.

Hegel. "Verhältnis des Skeptizismus zur Philosophie" (1802), Gesammelte Werke vol. 4, pp. 218 f.; Theorie-Werkausgabe vol. 2, p. 245: the five modes, he says, are the most suitable weapons "against the dogmatism of finitudes, but

entirely unusable against philosophy" (DE: „gegen den Dogmatismus der Endlichkeiten, aber […] völlig unbrauchbar gegen die Philosophie"); the essence of dogmatism, he says, consists in this, "that it posits a finite as the absolute" (DE: „daß er ein Endliches […] als das Absolute setzt").

On Appendix A: Kant

Kant is cited from the *Critique of Pure Reason* (A and B for the first and second editions, 1781 and 1787) and the *Prolegomena to Any Future Metaphysics* (1783).

Truth↑ and criterion. The nominal definition, "granted and presupposed"; no general criterion for all content, only a formal one, which holds merely negatively, as a "conditio sine qua non": A 58–60/B 82–84.

Appearance and limit. Dream and truth are distinguished by the connection of representations according to rules: *Prolegomena* § 13, Remark III. The noumenon as a limiting concept, and the nonsensible intuition that can only be thought: B 307–311. Limit and limitation: *Prolegomena* §§ 57 and 59.

The given. Hegel rejects Kant's binding of the concept to intuition in the *Science of Logic*, Doctrine of the Concept, "On the Concept in General" (DE: „Vom Begriff im allgemeinen") (Theorie-Werkausgabe vol. 6, pp. 260 f.); that philosophy "owes its development to the empirical sciences" (DE: „ihre Entwicklung den empirischen Wissenschaften verdankt"): *Encyclopaedia* § 12, Remark.

Antinomies and the stick example. The first antinomy (a beginning of the world in time): A 426 f./B 454 f.; its resolution: A 497–507/B 525–535, including the example of the body that "smells good" or "does not smell good", A 503/B 531. On Kant's resolution locating the contradiction in the determinateness of the presupposed object, and on Hegel transferring this discovery from judgments to determinations: Michael Wolff, *Der Begriff des Widerspruchs. Eine Studie zur Dialektik Kants und Hegels*, Königstein 1981; 3rd, revised edition Berlin 2017, pp. 59–62 and 226 f. Antinomies "in all objects": Hegel, *Encyclopaedia* § 48, Remark.

Necessity. Necessity and strict universality as the marks of a priori cognition: B 3 f.; the argument for this, the transcendental deduction of the categories: B 116–169.

On Appendix A: Heinrichs

Heinrichs is cited from *Sprache*, vol. 3: *Die Handlungsdimension. Psychologik der Sprechakte und Dialoganalyse (Pragmatik)*, Varna/Munich: Steno 2008, the completely revised version of the pragmatic part of his *Sprachtheorie* (*Reflexionstheoretische Semiotik*, part 2, Bonn: Bouvier 1981, which contains an excursus on truth, pp. 262–275). An abridged version of the final part appears in *Dialogik. Kann denn Liebe logisch sein?*, Baden-Baden: Academia 2020, chapter 9, pp. 169–193. Since 2025 all three books have been available from Reflexivity Press, Lisbon, as part of the "Gesammelte Werke" series: *Sprache*, vol. 3, and *Dialogik* as page-identical PDF reprints (vols. 27 and 45), the *Sprachtheorie* newly typeset with the original page numbers in the text (vol. 6).

The place and definition of truth. Truth↑ not until the pragmatic positing; truth as the sum of the implicit norms of linguistic action: p. 299.

The four sides. The matter: pp. 304–308; truthfulness: pp. 308–310; responsibility: pp. 311–314, including the terminally ill patient, pp. 311 f., and the destructive message, p. 313; coherence: pp. 314–319, including Hegel's dictum about the whole, p. 317.

No side as the measure of the others. Pp. 320 f., including the facta bruta, p. 321; the consensus that cannot produce truth: p. 317; ideology as practical untruth: p. 322; the conditionally realized unconditionality: pp. 322–324.

Earlier versions. According to Heinrichs's own account, first in threefold form in "Theorie welcher Praxis?" (written 1973/74, printed 1975 in: Ludwig Bertsch (ed.), *Theologie zwischen Theorie und Praxis*, Frankfurt am Main 1975, pp. 62 f.), in fourfold form in his lecture course on social philosophy, Frankfurt am Main 1975 (p. 299, n.; *Dialogik*, p. 172, n. 5). In his article "Wahrheit" (*Handbuch philosophischer Grundbegriffe*, Munich 1974), Lorenz B. Puntel advocated an "integral concept of truth," drawing, according to Heinrichs, on the manuscript of "Theorie welcher Praxis?" (ibid.).

Contemporaries and predecessors. Jürgen Habermas, "Wahrheitstheorien," in: *Wirklichkeit und Reflexion. Walter Schulz zum 60. Geburtstag*, Pfullingen 1973. Hegel's dictum "The true is the whole": preface to the *Phenomenology of Spirit* (1807), see Appendix B4.

GLOSSARY

Notes on Use

This glossary is not meant to be read in advance. The concepts are developed in the book, and anyone who looks them up here first gets a definition without the path that leads to it.

It is meant for three cases: when a word turns up in a sense that departs from the usual one; when someone is not reading in sequence and has therefore missed an introduction; and when someone wants to check whether an expression is used the same way throughout the book.

Chapter references point to the place where a concept is developed - not to every mention.

"Not meant" appears where an obvious reading has to be ruled out.

See also names related entries in this glossary and, where a concept is carried further in one of the companion books, the entry there.

Type names where the entry comes from: *Our method* for distinctions that this book and its companion books draw specifically; *General philosophical* for expressions that are established in the tradition and are used here in a particular sense.

Calibration

Type: Our method

Explanation: Adjusting one's own judgment to how things actually are - like calibrating a measuring instrument against a standard. What is meant in particular is estimating frequencies, weights, and proportions: How widespread is something? How much weight does it carry? How does it compare?

Why this is a concept of its own: Individual statements can all be accurate and still distort the overall picture. Someone who hears only true sentences about exceptions has no false knowledge, but a false picture. Omissions are unavoidable here, since no map contains the whole country; what is hard is weighting what is shown, and what is left out one does not see (Chapter 19.1).

Two levels: On the first, individual statements and their sources are checked; on the second, the distribution: what is selected, what is missing, how one's own sense of what is normal shifts (Chapters 19.4, 19.5).

One's own calibration means calibrating by one's own standards, refined by experience, instead of letting an authority filter things for one (Chapter 19.6). This does not rule out a division of labor in checking, but it does rule out a trust whose grounds one can no longer state (Chapter 19.4).

Developed in: Chapter 19; in detail in *Calibration* (2026)

See also: Perspective, Resistance, Certainty, Economy of checking

Camp Thinking

Type: Our method

Explanation: Sorting claims by the side they come from rather than by their grounds. What serves one's own camp is more readily believed, what harms it is checked more strictly; criticism is read as an attack, and the critic is assigned to the other side.

How to recognize it: By the asymmetry. The tilted filter checks nothing that troubles one's own side and everything the other side says.

Not meant: that every taking of sides is already camp thinking. It begins where belonging takes the place of checking.

The temptation is universal: It appears in every age and on every side, including among those who accuse others of it. What helps against it is not choosing the right side but symmetry: the same standards for one's own side as for the other, applied first to one's own camp.

Developed in: Chapters 17.1, 17.2, 17.5; on the tilted filter, Chapter 19.4

See also: Inversion, Immunization, Oriented pluralism

Certainty (Gewissheit)

Type: General philosophical

Explanation: The degree to which someone relies on something - at best, the degree that the grounds deserve. Certainty is first of all a finding about the person, not about the thing - calibration brings the two into line.

Not meant: truth. One can be certain and mistaken, and one can doubt and be right.

Degree and kind: Certainty has degrees, which can be graded, and kinds, which say how it is checked: by recalculating, by independent routes to the same finding, by experience with someone, by the enactment itself. A scale sets the kinds side by side as if they were one.

Developed in: Chapters 2, 19.4

See also: Knowledge, Truth

Cognition (Erkennen)

Type: General philosophical

Explanation: The activity through which something becomes accessible that was not accessible before. Cognition is a process; it has a beginning, interim stages, and no guaranteed conclusion.

Relation to truth: Truth is the process in which cognition joins everything it meets, including what resists it, into an articulated whole (Chapters 10, 20.2). Whatever has been reached at a given point is known truth: whole, not half, but not the last word.

Developed in: throughout; explicitly in Chapters 3 and 10

See also: Truth, Truth process, Knowledge, Proof by trial

Coherence

Type: General philosophical

Explanation: The connection between a conviction and everything else a person holds to be true. Coherence is violated where something does not fit, where a gap remains, or where two sentences exclude each other.

Not meant: mere freedom from contradiction. A system can be free of contradiction and empty. Coherence requires that the parts support one another, not merely that they do not get in each other's way.

Relation to correspondence: The two are sides of the same checking, once one stops thinking of them as a comparison between an inside and an outside. In the broad sense, as fit with everything one encounters, including what forces itself upon one, coherence includes correspondence, and checking correspondence is its most demanding case (Chapter 10.4). In the narrow sense, as the fit of thoughts with one another, it is not enough: even a delusional system can fit together within itself.

Developed in: Chapters 8, 10

See also: Correspondence, Resistance, Integration

Contradiction

Type: General philosophical

Explanation: The case in which two determinations exclude each other and both are claimed. A contradiction is not an error in thinking but a finding: It indicates that the existing order is not sufficient.

What follows: Contradictions are not to be avoided but worked through. Whoever removes them by striking out one side has lost the information they contained.

Not meant: that two mutually exclusive statements may be true at the same time. It is precisely because they may not be that the contradiction is a finding: It shows that the order falls short at this point (Chapters 2, 7).

How it resolves: through sublation. What is sought is the higher principle that explains both sides: Both observations remain valid, the contradiction as a problem dissolves, and understanding grows, as with the stick in water and the refraction of light (Chapter 7).

Developed in: Chapters 7, 10.10

See also: Sublation, Resistance

Correspondence

Type: General philosophical

Explanation: The agreement of a statement with what it is about. Philosophy's oldest concept of truth, and taken for granted in everyday use.

The classical problem: To check the agreement, one would have to know the thing independently of the statement - and for that one would again need statements.

The resolution: What holds up within an order and what resists it shows itself in the same experience in which the ordering takes place. No comparison from outside is needed.

The relation to coherence: Whatever does not correspond is thereby not coherent in the broad sense either (Chapter 10.4) - an idea that experience runs up against no longer fits with the rest. In the narrow sense, as the mere consistency of thoughts with one another, even a deception can be coherent. Checking correspondence is therefore not a second procedure but the most demanding case of checking coherence: the case in which what resists cannot be removed by rethinking.

Developed in: Chapter 10.4

See also: Coherence, Resistance

Detective Principle

Type: Our method

Explanation: The demand that an explanation must account for all the findings, not only the convenient ones. A detective who sets aside a clue because it does not fit his suspicion has not solved the case.

The practical core: Where something is left over that does not fit, the explanation is not yet finished, however much else it explains. Not every clue carries the same weight, but none may disappear.

Developed in: Chapter 8

See also: Elephant principle, Coherence

Economy of Checking

Type: Our method

Explanation: Deciding what deserves checking. Checking costs time and attention: Whoever checks everything has nothing left for what matters. Three factors determine the effort: the stakes, the base rate - how often claims of this kind have proved themselves so far - and the source's track record. Added to this is the division of labor: No one checks alone.

The limit: The economy of checking distributes attention, not truth. A low base rate justifies stricter demands for evidence, but it refutes nothing. What is true or false is decided only by the check itself.

How a tilted filter can be recognized: by the asymmetry. It waves through what is convenient and checks only what is inconvenient; its boundary runs along that of one's own camp. The same test applies to whoever dissents: An opinion is no more made true by prevailing than by dissenting.

Developed in: Chapter 19.4; on the question of whether something deserves checking, Chapter 18.4

See also: Calibration, Certainty, Camp thinking

Elephant Principle

Type: Our method

Explanation: Different standpoints often grasp different true aspects of the same thing. Named after the fable of the blind men who touch an elephant and,

depending on where they touch it, arrive at incompatible descriptions - snake, pillar, fan.

The core of the fable lies not simply in each of them having felt something right, but in there being an elephant. Without it, the descriptions would not be contradictory but unrelated. It is by the elephant that it is settled in what respect they fit together.

Right and wrong: Each is right about what he has felt, and wrong as soon as he takes it for the whole and excludes the others. It is in this sense that Appendix A says of the theories of truth that all of them are right.

Two kinds of standpoints: Some grasp parts that only together make up the thing - clues, measurements, witness statements. Others grasp the whole from one place, as one sees a mountain from the east or from the west. Whoever treats whole ways of seeing as parts devalues them; whoever elevates parts to whole ways of seeing turns every clue into a truth of its own.

Not meant: that every position grasps as much as any other. Some touches grasp more than others, and some descriptions are simply false.

The limit: Where different statements do not refer to the same object, there is nothing to integrate. Nor where a statement is simply inaccurate.

Developed in: Chapter 5; applied to the theories of truth in Appendix A

See also: Perspective, Integration, Detective principle, Oriented pluralism

Experiment

Type: Our method

Explanation: The marked passages where the reader can check for himself whether what is claimed is the case. Most of them are part of the proof, not illustration. Some only sharpen a question or bring something to light.

Kinds that show different amounts. An *observational experiment* has an open finding - if it differs for enough readers, the description is false. A *performative test* has no open finding: the opposite cannot be enacted. A *thought experiment* cannot be carried out, only thought through, and it sharpens a question rather than establishing anything. A *self-exploration* brings to light what each individual brings to it; a differing finding is not an objection but its very subject matter. An

application checks a developed tool on a case; its finding is open to dispute like any factual question. A *limit test* checks the tool itself and finds where it stops holding.

What the difference turns on: An objection only hits home if it is the right kind of objection for the kind in question.

Developed in: Chapters 1, 2, 4, 9, 19.5 (each where a kind first appears)

See also: Performative, Self-reference

Forgery of the Foundation

Type: Our method

Explanation: The abuse of the performative method itself. The forgery begins like the genuine article, with something that is really there - the impulse to check, an unease, the longing for meaning - and leads step by step to a result that was fixed from the start. In the end, the experience of the person addressed is declared to be the proof.

How to recognize it: Not by the first step, which resembles the genuine one, but by the steps that follow. The tests ask: Is the check allowed to come out differently? Are counter-checks offered? Is there time? Is the experience treated as a clue or as proof? Who interprets it? And does the process make one more independent or more dependent?

Not meant: the irrefutability of checking itself. That lies in the open and invites the counter-check. The forgery needs a hiding place.

Developed in: Chapter 18

See also: Immunization, Inversion, Performative

Forms of Truth

Type: Our method

Explanation: The different ways in which a judgment proves itself true - empirically, existentially, culturally, artistically. They differ in what they prove themselves against. The concept of truth remains the same throughout (see Appendix A, Alethic Pluralism).

The category mistake: Whoever measures one form by the standard of another misses both. "The earth is our mother" (DE: „Die Erde ist unsere Mutter") holds up as a metaphorical disclosure and is false as a biological claim.

Not meant: that something is true because it helps. Existential and cultural truths, too, must withstand the experiences that speak against them.

Developed in: Chapter 12

See also: Proof by trial, Interpretation

Immunization

Type: General philosophical

Explanation: A conviction is built or defended in such a way that no possible finding can touch it: the counterexample is declared an exception, criticism is reinterpreted as confirmation, the critic is attacked instead of his objection. The pre-judgment that shields itself from experience in this way becomes a prejudice.

How to recognize it: By asking what would convince one of the opposite. If the answer is "nothing," it is a dogma.

Not meant: the irrefutability of checking itself. Whoever denies that he is checking is checking as he does so. But this structure lies in the open: anyone can carry out the counter-check. Immunization hides its irrefutability and forbids the counter-check.

Developed in: Chapters 4, 17.4, 18.3, 21.2

See also: Pre-judgment, Inversion, Forgery of the foundation

Integration

Type: Our method

Explanation: Bringing different perspectives or findings together into a context in which each has its place. Integration is more than collecting: it has to become clear how the parts belong together.

Not meant: averaging. Whoever makes one middle position out of two takes half of each and does not show how they belong together.

Developed in: Chapters 5, 8

See also: Elephant principle, Sublation, Coherence

Interpretation

Type: General philosophical

Explanation: Understanding what human beings have produced - texts, images, laws, tools, actions. It goes on all the time and mostly unnoticed, in reading a sentence as in reading a smile. What distinguishes products of spirit from products of nature is conscious purpose. That is why interpretation asks about the intention of a text, the function of an organ, and the cause of a mere natural process.

The dimensions: Because what is produced arises from a purpose, interpretation reconstructs how it came about: the material, the originator, the means and methods, the purpose and the effect. With a great work, world-disclosure is added: it gives form to an experience that concerns many.

Kind of text and truth: Because texts are made for different purposes, one checks different things in them: with a report, whether it is accurate; with a law, whether it fulfills its purpose and fits with the others; with a letter, its truthfulness; with a poem, whether it is true in that other sense in which we speak of a true friend: whether it is what it is meant to be. What is true or false in the sense of a judgment here are the judgments about the text (Chapter 13.3).

Not meant: a list to be worked through. Each dimension shows itself in the blind spot that appears when it is missing, and the purpose of the work decides which one carries the most weight.

Developed in: Chapter 13

See also: Forms of truth, Perspective, Living completeness

Inversion (Verkehrung)

Type: Our method

Explanation: A principle turns into its opposite while its form stays the same. Whoever uses the elephant principle to grant every position a grain of truth, and thereby dissolves the distinction between true and false, has inverted it.

How it happens: A strength is made absolute - skepticism becomes cynicism, the search for connection a schema, empathy a compassion that replaces checking, openness arbitrariness. The danger is the flip side of what makes the strength strong. What helps against it is self-application.

Why this is a topic of its own: The principles of this book can all be misused, and from outside the misuse is hard to distinguish. It shows in what it yields, not in its form. It is hardest to recognize where checking is obstructed in the name of truth, often by people who believe they are defending the truth (Chapter 17).

Developed in: Chapter 17, especially 21.5

See also: Immunization, Camp thinking, Calibration

Knowledge

Type: General philosophical

Explanation: Reknown truth that can be justified - by reasons one can give, or by an accuracy that has proved itself over many cases.

Two forms: Explicit knowledge can give an account of itself. The internalized knowledge of an experienced person often cannot, and yet it is more than conjecture, because it has proved itself (Chapter 9.1).

Not meant: a correct conjecture that just happens to be right.

Developed in: Chapter 9.1

See also: Cognition, Certainty, Truth

Living Completeness

Type: Our method

Explanation: Something is whole not because nothing is missing but because its parts belong together: Each refers to the others, is determined by them, and develops with them. Nothing essential to understanding the connection is missing, but not everything possible needs to be mentioned.

The opposite: mechanical completeness. It collects, adds up, and ticks off: Its points stand side by side without relation, and any of them could be left out or replaced without anything in the whole changing. What it lacks is the bond.

Not meant: that rules, lists, or strict procedures are dead as such. An order becomes mechanical when its parts are worked through without relation to one another and without asking what for.

Developed in: Chapters 6, 20.1

See also: Integration, Coherence, Interpretation

Münchhausen Trilemma

Type: General philosophical

Explanation: The observation that every justification ends up in one of three situations: infinite regress, circularity, or an arbitrary breaking-off. Named after the baron who pulls himself out of the swamp by his own hair.

The answer: The trilemma conceives of justification as a chain, one sentence supporting the next. On this presupposition it is right. But the search for truth is not a first sentence; it is an enactment that cannot be denied without the denial enacting it. And it proves itself in what is built on it. The image for this is the archway, whose stones hold one another up.

Not meant: a circle of sentences that presuppose one another. Such a circle secures only consistency. The archway of Chapter 1 is not made of sentences; it is the self-confirmation of an enactment.

Developed in: Chapter 1; cf. Appendix B3

See also: Performative, Self-reference

Oriented Pluralism

Type: Our method

Explanation: The stance between rigid dogma and arbitrary relativism. Oriented, because there is a direction, toward truth, and not all paths are equally good; pluralism, because many paths can lead to the summit, and the diversity of those who search together is a source of richness. The direction is shown not by particular results but by the way of checking: grounds, the bringing together of perspectives, contradictions worked through, checkability by others, and revisability.

The self-limitation: There are justified and unjustified positions, open and immunized ones. Whoever refuses justification in principle excludes himself from the truth process.

Two ways of engaging: Partial findings are checked for how they fit into the whole; whole ways of seeing are asked what share of truth they hold, without being reduced to building blocks (Chapters 5, 20.4).

Not meant: a lazy compromise or harmonizing at any price. Some things can only be contained or endured; integration comes after checking, not in its place (Chapter 20.4).

Developed in: Chapter 20.4

See also: Elephant principle, Perspective, Truth process

Paradigm Shift

Type: General philosophical

Explanation: A shift in which not individual assumptions but the basic concepts of a structure of thought are replaced. It can preserve the old theory as a limiting case, as the theory of relativity does with Newton's mechanics, or replace its basic concepts entirely for a domain, as in the transition to quantum mechanics. In a wider sense every such shift is a sublation, the radical break included: It preserves the phenomena and raises our understanding of them to a new level.

The rule: Every shift must save the phenomena: In the long run it must explain what the old paradigm explained, and also what it could not explain. At the outset

it may still lag behind in this, like the heliocentric model, which at first did not calculate more accurately.

Not meant: a shift without grounds. That paradigms can be hard to compare does not make the shift arbitrary, for it follows the same principles of the search for truth as ordinary research.

Developed in: Chapter 15

See also: Saving the phenomena, Sublation, Proof by trial

Performative

Type: General philosophical

Explanation: A connection is called performative when it is not asserted but shown in the enactment. The evidence is then not an argument but what someone does while reading or disagreeing.

How to recognize it: A performative contradiction occurs when the content of a statement contradicts what its enactment presupposes. Whoever says “I am silent” is not.

Limit: Not every claim in this book is established performatively. Where experiences are described, the findings can differ.

Developed in: Chapters 1, 2

See also: Self-reference, Münchhausen trilemma, Performative consistency

Performative Consistency

Type: Our method

Explanation: The agreement between what a text says and what it does. A text about the search for truth is performatively consistent when it applies its principles to itself: when it justifies what it demands, takes up objections, stays open to revision, and lets itself be measured by its own tests.

The opposite: the performative contradiction, in which the enactment belies what the content says.

Developed in: Chapter 21

See also: Performative, Self-reference, Living completeness

Perspective

Type: General philosophical

Explanation: The standpoint from which something is grasped, including what it makes visible and what it makes invisible. All knowledge has a perspective; there is no view from nowhere.

Not meant: Arbitrariness. That every view has a perspective does not mean that all perspectives grasp equally much.

Two kinds: Some perspectives grasp parts, others the whole from one place; whoever confuses them devalues the one or overrates the other (see Elephant principle).

Developed in: Chapter 5

See also: Elephant principle, Integration, Calibration, Oriented pluralism

Pre-Judgment (Vor-Urteil)

Type: General philosophical

Explanation: The expectation with which someone approaches a matter before having checked it. Pre-judgments are unavoidable and mostly useful: without them no perception would be possible, because nothing would appear as something.

Not meant: Prejudice in the pejorative sense. The hyphen marks the difference: a pre-judgment precedes judgment; a prejudice refuses it.

The difference lies in correctability. A pre-judgment changes when it meets resistance; a prejudice in the pejorative sense holds out against it. Which of the two is at work does not show in advance but only in how resistance is dealt with: even a prejudice that lets itself be corrected thereby proves to be a pre-judgment (Chapter 4).

Developed in: Chapters 3, 4

See also: Confirmation, Resistance, Immunization; *Thinking – Ordering Without Losing* (2025), Glossary: Prejudice, *Ethics – The Good We Already Do* (2026), Glossary: Image of the other

Proof by Trial (Bewährung)

Type: General philosophical

Explanation: The process in which an assumption proves sound in further use - or does not. This is not a one-off test; it goes on: what has proved itself can later turn out to be inadequate.

Not meant: proof. An assumption that has proved itself is not proven; it has simply not failed so far.

Not meant either: working. A deception can work for a while, a consolation can help, an ideology can order a society effectively; what has proved itself is what stands up to checking as checking grows.

Relation to truth: What is true is what stands up to checking as checking grows (Chapter 10.5). What has proved itself so far counts as known truth as long as it stands up.

Developed in: Chapters 4, 10.5, 12.3

See also: Pre-judgment, Resistance

Resistance (Widerstand)

Type: Our method

Explanation: That which does not yield to expectation, wish, or intervention. Resistance is where reality makes itself felt in cognition - not as a push from outside, but as the failure of what was assumed or wanted to work out.

Not meant: mere hardness. A fist striking the table only confirms what was assumed anyway. Resistance teaches something where an assumption or a wish

meets something that does not give way - the stone that is heavier than it looked, or that does not rise just because one wants it to (Chapters 11.1, 11.2).

How variously it makes itself felt: tangibly in the stone; as stubbornness in oneself, where habit and impatience do not give way and correct the picture one had of oneself; as surprise in other people; latest of all in what holds between people. Other people also resist as those to whom one owes grounds: they do not merely refute, they contradict. And they can answer: say what is wrong, and correct the picture one has of them and of the matter, even where one would have noticed nothing oneself. Their resistance is not stronger than the stone's, but of a different kind: it offers grounds that must themselves be checked. How far someone can answer counts for more than their presence; reading, too, is an encounter, if an unequal one.

Equally not meant: that someone refuses to give in. A stubborn prejudice resists not reality but correction - a different process.

One concept, a difference of degree. Whether something fails to yield when one intervenes or when one thinks is not a matter of two kinds of checking - both make themselves felt as a break in the same context. The difference lies in how hard it is to dismiss: whoever intervenes gets an answer, whether it fits or not; in merely thinking things through, what disturbs can be accommodated more easily - by an auxiliary assumption, a shifted boundary, an exception.

Developed in: Chapters 8.4, 10, 11

See also: Coherence, Correspondence, Pre-Judgment; *Ethics – The Good We Already Do* (2026), Glossary: owing reasons

Saving the Phenomena

Type: General philosophical

Explanation: The demand that every genuine observation find its place in the explanation. The expression comes from Greek astronomy (*sozein ta phainomena*). Observations are almost never entirely false - what can be false are the interpretations, and these are then rejected, not integrated.

What belongs to it: Saving also means keeping what cannot yet be explained, and even finding a place for the deception: That someone has laid a false trail is itself a clue.

Developed in: Chapters 8.2, 15.4

See also: Detective principle, Paradigm shift, Sublation

Self-Reference

Type: General philosophical

Explanation: The property of the question of truth that it refers to itself: Whoever asks what truth is wants a true answer. The question presupposes what it asks about.

What follows: The search for truth cannot be justified from outside. It is the ground on which every justification stands - including the justification that there is no such search.

Developed in: Chapters 1, 2

See also: Performative, Münchhausen trilemma

Sublation (Aufhebung)

Type: General philosophical

Explanation: The resolution of a contradiction in which what is justified on both sides does not disappear but is preserved in a more comprehensive determination. In German the word has three meanings - to end, to preserve, to lift to a higher level - and all three are meant.

Not meant: compromise. A compromise gives up something on both sides; a sublation shows what was justified on each side and what was not, and explains how the opposition came about.

How to recognize it: By asking whether the new position explains why the old ones arose. Where it does not, what we have is a mixture.

Developed in: Chapters 3.4, 7, 15

See also: Contradiction, Elephant Principle; *Thinking – Ordering Without Losing* (2025), Glossary: Sublation, *Ethics – The Good We Already Do* (2026), Glossary: Sublation

Truth

Type: General philosophical

Explanation: The book does not define truth in advance; it develops it in the enactment. It begins with the question that presupposes itself: Whoever asks what truth is wants a true answer, and whoever denies checking is checking in doing so (Chapter 1). Then, step by step, it emerges that the matter discloses itself when many perspectives are brought together (Chapter 5); that what is brought together is a whole whose parts determine one another, not a heap (Chapter 6); that contradictions are sublated, not discarded (Chapter 7); that every clue must find its place (Chapter 8); and that what resists our wishes also belongs in this connection (Chapter 10). Truth is the process in which all this interlocks: neither mere agreement with facts nor pure construction of thought, but the living process of their integration (Chapter 10.10).

“The true”: the living, logically ordered, developing whole (Chapter 20.1): not a sum of known propositions but a connection whose parts determine one another, which lacks nothing essential and which develops further in the search. On the origin of the saying, see Appendix B4.

Known truth: What has been reached at any given point. It is not mere opinion, but not the last word either: It holds until a better order sublates it, and it remains preserved in that order. It can contain errors that only the better order uncovers. The insight reached in this way is whole, not half, but it is not the last (Chapters 20.2, 20.3).

The reversal: Once an order has been found, an explanation, a report, or a concept is also called true when it does what it is meant to do, and finally the thing itself, when it is what it ought to be, like a true friend, a chair that holds, or a successful work. This truth does not stand against the first; it arises from it (Chapters 12.3, 20.2). In Hegel this is the deeper sense (Appendix B2).

Not meant: Consensus. That everyone holds something to be true does not make it true, for what holds must also withstand what yields to no wish and no majority.

Developed in: throughout; summarized in Chapters 20.1 and 20.2

See also: Truth process, Cognition, Coherence, Correspondence, Resistance

Truth Process

Type: Our method

Explanation: The whole of searching, finding, and searching on. Within it, known truth is gained, checked, and carried forward: Every order found holds until a better one sublates it, and then passes into that one. What drives it onward is what the book develops step by step as truth: An order in which a contradiction is left open, a clue has no place, or something essential is missing is not yet the whole.

Not meant: that truth is made at will through exchange. What holds in the process must also withstand what yields to no wish and no majority (Chapter 10).

How to recognize it: By openness to the next check. Whoever rules out that what has been reached can still be improved has halted the process; whoever lets nothing hold because everything might still be improved has not begun it.

Who takes part in it: The process is a shared one. Institutions such as science, free media, and independent courts are its forms (Chapter 16.2); whoever refuses justification in principle excludes himself from it (Chapter 20.4).

Developed in: Chapters 1, 10.6, 16.2, 20.2

See also: Truth, Cognition, Proof by trial, Oriented pluralism