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Practical Historiography as a Science of Orientation

From Historical Knowledge to Philosophically Grounded Practical Judgment

Extended Working Paper, Status: October 2026

Abstract

Contemporary challenges demand, alongside interpretive and instrumental knowledge, scientifically grounded orientation knowledge. While economic and legal expertise dominates public decision-making, history's orienting potential remains methodologically underdetermined. This study conceptualizes *practical historiography* as an autonomous science of orientation.

At its core lies a tripartite system integrating three complementary traditions: descriptive-interpretive reconstruction, explanatory-prognostic analysis, and practical reflection. By bridging normative value, pragmatic goal, and technical means discourses, the practical tradition ensures a methodologically controlled transition from empirical findings to practical judgment. In contrast, Applied History, Applied Phronesis, and Normative Rational Choice Theory lack normative justifying force, running afoul of the is-ought problem and succumbing to the naturalistic fallacy.

Theoretically, tradition is reconceptualized as a reflexive spiral of identity transformation: a dynamic space of experience rather than a static inventory, offering a rational compass for future action spaces instead of deterministic forecasts. The concluding chapter consolidates these contributions in three steps: it synthesizes the central findings into theses, illustrates the viability of the framework for preserving Transylvanian Saxon cultural heritage in the age of generative AI, and extends the outlook to the planetary challenges of deep time in the Anthropocene.

Keywords

Practical historiography, science of orientation, reflecting spiral of identity transformation, applied history, normative rational choice theory, applied phronesis, Transylvanian Saxons, Anthropocene.



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1 Introduction: From Yesterday to Tomorrow – Practical Historiography as a Science of Orientation

Tradition as a Reflective Spiral of Identity Transformation: Tradition constitutes the inescapable foundation for interpreting the present and orienting future action: it discloses historical emergence and provides the coordinates for future-oriented judgments. Its bearers and shapers face the challenge of not mistaking it for static repetition, but conceiving it as a process that each generation appropriates anew, preserves, and develops further.

I model this process as a spiral of tradition: identity remains alive only when each generation translates inherited values, goals, and means into its own lifeworld (*Lebenswelt*), critically examines them, and perspectives them anew. Each turn leads to a qualitatively transformed stage of cognition and action. In this way, historical identity is preserved from museal ossification and simultaneously shielded from ethno-substantialist misuse, for appropriation, preservation, and transformation are moments of one and the same practice.

This is exemplarily evident in the motto of the Transylvanian Saxons: *"Mir wallen bleiwen wat mir sen"* ("We want to remain what we are"). Read substantialistically, it demands inertia. Understood hermeneutically, it signifies continuity within change: to remain means to maintain oneself as the same through transformation.

Practical Historiography as a Science of Orientation: A methodologically reflected practical historiography systematically links descriptive-interpretive understanding knowledge (*Verstehenswissen*) with explanatory-prognostic instrumental knowledge (*Verfügungswissen*), and on this foundation discloses practical orientation knowledge (*Orientierungswissen*) for open-ended horizons of action.

In doing so, I delineate this approach in two ways: from a revival of *historia magistra vitae*, as articulated in the Harvard concept of Applied History, and from the methodological narrowings of the Applied Social Sciences, specifically Normative Rational Choice Theory and Applied Phronesis. History provides neither action recipes nor deterministic forecasts. It trains reflective judgment in the face of contemporary dilemmas of action, serving as a compass within normative value discourses and pragmatic goal discourses. Only the means discourse condenses into an operative navigation system: values and goals indicate the direction, but only technical-instrumental means can be practically specified for concrete decision-making situations.

Foundation and Innovations: The present study builds upon the tripartite system of philosophical traditions developed in earlier works: descriptive-interpretive reconstruction, explanatory-prognostic analysis, and practical reflection. Within this framework, the practical tradition mediates between normative value discourses, pragmatic goal discourses, and technical means discourses, thereby securing a methodologically controlled transition from empirical knowledge to practical judgment.

Building on this, I develop three innovations: First, I integrate hermeneutic interpretive knowledge as an autonomous third epistemic dimension alongside instrumental and orientation knowledge into a coherent epistemological model. Second, with tradition conceptualized as a reflective spiral of identity transformation, I present an approach that extends the hermeneutic spiral into a dynamic theory of historical identity formation. Third, I establish practical historiography as an autonomous science of orientation that synthesizes interpretive and instrumental knowledge into practical orientation knowledge in a methodologically controlled manner.

Guiding Research Questions: From this emerge three guiding research questions for this investigation:

1. How can autonomous subjects—both as individuals and as members of communities—reflectively shape the path from yesterday to tomorrow and transform historical experience into open-ended practice?
2. On what philosophical foundation can practical problems be rationally addressed and the associated judgments and action choices justified?
3. How can a practical historiography, on this basis, generate methodologically controlled orientation knowledge that provides a reliable direction for future social and political decisions?

Outline: To uncover the philosophical foundations of a genuinely practical historiography, the study first presents the three fundamental philosophical traditions that continue to shape scientific and scholarly thought today (Chapter 2). Building upon this, it analyzes the methodological limitations of existing practical approaches in Normative Rational Choice Theory, Applied Phronesis, and Applied History (Chapter 3). This is followed by the methodological grounding of practical historiography as an autonomous science of orientation (Chapter 4). A concluding chapter draws together the central findings and offers an outlook on research practice in two fields: the history of the Transylvanian Saxons and the Anthropocene as a challenge for historical scholarship (Chapter 5). It is supplemented by a bibliography of cited sources (Chapter 6) and a figure illustrating the three philosophical traditions (descriptive-interpretive, explanatory-prognostic, and practical) with their key characteristics across ten levels (Chapter 7).

2 Three Philosophical Traditions: Descriptive-Interpretive, Explanatory-Prognostic, and Genuinely Practical

Every scientific discipline rests on the foundation of a philosophical tradition composed of axiological, epistemic, ontological, and methodological premises that—mostly unnoticed—predecides what counts as knowledge within its boundaries and how it is to be acquired. Most often, these premises remain unspoken because they shape a discipline's methodological vocabulary so deeply that they are scarcely perceived as a contingent choice anymore. The present chapter uncovers three of these fundamental traditions, each pursuing distinct epistemic goals with specific methodological means: a descriptive-interpretive tradition aimed at understanding meaning, an explanatory-prognostic tradition seeking explanation and prediction modeled after natural science, and a genuinely practical tradition oriented toward the rational justification of action under uncertainty. From this interplay emerges the tripartite system of interpretive (*Verstehenswissen*), instrumental (*Verfügungswissen*), and orientation knowledge (*Orientierungswissen*).

Since these traditions do not historically stand isolated alongside one another, but compete along lines of conflict that reverberate to this day, the chapter first clarifies the philosophical origins of the individual positions (*2.1 Philosophical Traditions as Foundations of Science*). Following this, the German-language concept of the *Methodenstreit* is brought together with Anglo-American discourses on the Science Wars in order to uncover the conceptual and linguistic continuity of these debates (*2.2 Clarification of Concepts: Methodenstreit and Science Wars*). On this basis, the study traces the historical genesis of the controversy from its early modern roots in the 17th century to its current resurgences in the global discourse of the

21st century (*2.3 Genesis of the Methodenstreit and the Science Wars from the 17th to the 21st Century*). Finally, the chapter demonstrates how this foundational conflict cannot be overcome by a reductionist unified science, but solely through the methodologically reflected complementarity of all three traditions (*2.4 Overcoming the Methodenstreit or the Science Wars Through the Complementarity of the Three Traditions*).

2.1 Philosophical Traditions as Foundations of Science

For centuries, the topos *Historia magistra vitae* served as an attempt to establish history as a moral teacher: "History, on the other hand, as witness of the times, light of truth, life of memory, teacher of life, messenger of antiquity" ("*Historia vero testis temporum, lux veritatis, vita memoriae, magistra vitae, nuntia vetustatis*"; Cicero 2007 [55 BC], Book II, Ch. 9, § 36, pp. 214–215). Historiography was thereby not oriented toward uncovering causal laws, but toward providing exemplary models for action in the present. From Greek and Roman antiquity onwards (Herodotus, Thucydides, Polybius, Livy, Tacitus), practical questions—of a normative, moral, political, and pragmatic nature—were therefore at the center; theoretical (empirical-analytical) epistemic interests, by contrast, remained secondary.

The enormous dynamic and progress that took hold of art and science since the Renaissance and expanded to all societal spheres during the *Sattelzeit* (c. 1750–1850) (Brunner/Conze/Koselleck 1972) eventually led to the abandonment of this didactic-normative claim. With the increasing decoupling of the historical "space of experience" and the future "horizon of expectation" (*Erfahrungsraum* versus *Erwartungshorizont*, Koselleck 1989 [1975]), the past lost its immediately orienting function for the present. On the level of the philosophy of science, this shift corresponded to David Hume's insight that a logical inference from empirical facts to moral duties is impossible: no normative *ought* can be derived from a purely historical *is* (Hume 2007 [1739/1740]).

With the establishment of history as an academic discipline in the 19th century, a new disciplinary self-understanding gained acceptance: the historian should no longer claim to "judge the past, to instruct the contemporary world for the benefit of future years," but "merely show how it actually was" („die Vergangenheit zu richten, die Mitwelt zum Nutzen zukünftiger Jahre zu belehren", sondern „bloß zeigen, wie es eigentlich gewesen" von Ranke 1990 [1824]: 45). Consequently, empirical-analytical questions remain in the foreground in the mainstream of the humanities and social sciences to this day; practical questions were marginalized and play a role only in very limited circles. This shift in epistemic objectives went hand in hand with a comprehensive scientification of the discipline, which brought about a marked refinement of methodology.

Friedrich Daniel Ernst Schleiermacher founded modern philosophical hermeneutics (Schleiermacher 2011 [1838]) as a general art of understanding, which he developed primarily on the basis of theological texts. Leopold von Ranke transferred these methodical principles to history: by establishing a systematic historical-critical source analysis, he elevated historical scholarship to a new methodological level and permanently anchored it in academic training. These qualitative methodologies continue to shape historical scholarship as well as the humanities and social sciences to this day and undergo ongoing methodical refinements (Bevir/Rhodes 2016; Creswell 2013 [1998]; Flick/von Kardorff/Steinke 2015 [2000]; Yanow/Schwartz-Shea 2014 [2006]). In addition to established qualitative methods, quantitative procedures—bundled under the umbrella of the *Digital Humanities*—are increasingly making their way into the humanities and historical studies in the wake of digitization. The aim is a synthesis of quantitative-statistical data acquisition and qualitative source criticism (Dougherty/Nawrotzki 2013; Jannidis/Kohle/Rehbein 2017; Schwandt 2021; Antenhofer/Kühberger/Strohmeyer 2024).

However, historical questions are addressed not only within historical scholarship, but also in the social sciences since their inception. This was accompanied by a successive expansion of the methodical repertoire to include quantitative methodologies aimed at identifying causal

relations and connections (King/Keohane/Verba 1994, Brady 2011 [2009]), which are themselves subject to continuous methodical differentiation (Box-Steffensmeier/Brady/Collier 2010 [2008]; Brady/Collier 2010 [2004]; Goertz/Mahoney 2012; Wenzelburger/Zohlnhöfer 2015).

These methodologies—the hermeneutic-qualitative of the historical and human sciences as well as the quantitative-causal-analytical of the social sciences—are part of two comprehensive philosophical traditions: the Aristotelian and the Galilean traditions (von Wright 1974 [1971]) or, in contemporary terminology, the naturalistic and constructivist "Ways of Knowing" (Moses/Knutsen 2019 [2007]). In their highly influential book, Jonathon Wayne Moses and Torbjørn Lindstrøm Knutsen structure the field of social science research along two main methodological traditions (Naturalism and Constructivism), which they conceptualize as foundational for different "ways of knowing". To bridge the methodological divide between the two camps, they draw on Scientific Realism as a mediating perspective. *The Routledge Companion to Historical Theory* (van den Akker 2022) provides an up-to-date, comprehensive overview of the philosophical foundations of historical scholarship.

Crucial for this investigation is the following: these fundamentally different methodologies listed above form the basis of the *Methodenstreit*, which Flyvbjerg designates as the "Science Wars" (Flyvbjerg 2001: 1). Since the 19th century, two opposing camps have confronted each other; I have elaborated this in detail using the example of political science (Lauer 2017; 2025):

- The currents oriented toward the Galilean tradition—naturalism, positivism, and scientism—take the natural sciences as their model and pursue a causal as well as empirical reductionism. Processes are no longer questioned teleologically as to *what end* they occur, but *how* and *under what conditions* they take place. The objective is the explanation of regularities at the macro level by means of quantitative, logical-mathematical, and statistical methods (e.g., regression analyses) as well as the analysis of causal mechanisms at the micro and case level using qualitative-mathematical tools (e.g., process tracing). Goertz and Mahoney (2012) locate a methodological cultural boundary here between quantitative approaches for determining causal regularities and qualitative approaches for identifying causal processes—where the latter, it should be noted, are not qualitative-interpretive, but qualitative-mathematical methods (cf. Lauer 2025: 306–326).
- In the Aristotelian tradition—sustained by constructivists, interpretivists, and the Perestroika movement—the humanities and cultural sciences function as methodological lead disciplines. Instead of searching for causal laws, this approach aims at the hermeneutic understanding of intentional actions, intersubjective meanings, and symbolic orders. By means of interpretive procedures (e.g., qualitative text and document analysis, discourse analysis, or "thick description", Geertz 1973), this current advocates for an object-adequate, context-sensitive, and "problem-driven" rather than purely "method-driven research" (Green/Shapiro 1994).

2.2 Conceptual Clarification: *Methodenstreit* and the Science Wars

At this juncture, a nuanced conceptual distinction is called for: In the German-speaking world, the term *Methodenstreit* historically refers primarily to the Menger–Schmoller controversy in economics (Starbatty 1989). At the end of the nineteenth century, Carl Menger (founder of the Austrian School) and Gustav von Schmoller (leading representative of the Younger Historical School) clashed over the fundamental question of how economic knowledge should be

attained: through abstract theoretical deduction (Menger) or through historical-empirical induction (Schmoller).

A similarly framed controversy took place in German sociology during the 1960s as the *Positivismusstreit* (positivist dispute) (Adorno/Albert/Dahrendorf/Habermas/Pilot/Popper 1976 [1969]). This debate unfolded between Critical Rationalism (Karl Popper, Hans Albert) and the Critical Theory of the Frankfurt School (Theodor W. Adorno, Jürgen Habermas). While Popper and Albert advocated a unified methodological model rooted in empirical falsification, deductive testing, and value neutrality (*Wertfreiheit*), Adorno and Habermas countered that this approach fails to grasp the historical and normative dimensions of the social world: they demanded that society always be conceived of as a contradictory totality.

Although both disputes raise the same fundamental question—the tension between a natural-scientific ideal of knowledge (model building, causal laws, methodological universalism, value neutrality) and a human- and cultural-scientific paradigm (historicity, interpretive understanding [*Verstehen*], dialectical totality, social critique)—I adopt a broader scope in my work (see in detail Lauer 2017, 2025): These investigations follow and partially expand upon the diagnosis formulated by Bent Flyvbjerg (2001), who engages with the so-called Science Wars of the 1990s. On the surface, these were a trench warfare between scientific realism and postmodern deconstruction, culminating in the Sokal affair of 1996 (Editors of Lingua Franca 2000). Flyvbjerg, however, uses this debate as a springboard for a more fundamental critique: he opposes the positivist paradigm—or the Galilean tradition of merely imitating the natural sciences within the social sciences—advocating instead for a neo-Aristotelian turn based on practical wisdom (*applied phronesis*).

Ever since Bacon's *Novum Organum* (Bacon 2000 [1620]), this foundational dispute has run through the history of science under various names: periodic scientistic ruptures aimed at overcoming the Aristotelian heritage alternate with counter-movements of intellectual revival. This pattern particularly characterizes the humanities and social sciences, which constantly oscillate between claims of natural-scientific hegemony and counter-proposals grounded in the humanities. In what follows, the genesis of this conflict and its key stages are traced.

2.3 Genesis of the Methodenstreit or Science Wars

In antiquity, the path from myth to logos was traversed; the epistemic tools developed in this process were exemplarily systematized in the Aristotelian Organon (Aristotle 1920 [4th century BC]). For centuries, theoretical and practical philosophy shaped rational thought as a unified whole. While physics already emancipated itself from philosophy in the 17th century, the comprehensive differentiation of other scientific fields began in the 19th century and established today's spectrum of disciplines.

The emancipation of the sciences from philosophy began with the philosophical and methodological foundations for the emergence of modern natural science in the 17th century, which were decisively shaped by Galileo Galilei and Francis Bacon. Georg Henrik von Wright (1971) subsumes the resulting paradigm under the concept of the Galilean tradition, whose mechanistic understanding of nature and science is characterized by four essential features:

1. **Rejection of teleology:** The methodical paradigm shift leads from Aristotelian final causes (*causa finalis*) to pure efficient causes (*causa efficiens*). Natural processes are no longer questioned regarding *to what end* they occur, but *how* and *under what conditions* they proceed in accordance with laws.
2. **Mathematization and quantification:** Galilei's dictum that the book of nature is written in mathematical language establishes the ideal of measurable quantities and mathematically formulated laws of nature, as well as the introduction of model-based thinking.

3. **Explanation as subsumption:** Scientific explanation is understood as the subsumption of individual cases under universal laws (precursor to the Hempel-Oppenheim scheme or the covering-law model; Hempel/Oppenheim 1948), oriented toward the goal of prognostic control and technical controllability.
4. **Methodological monism:** In the subsequent course of the history of science (especially in positivism), this approach is elevated to the universal benchmark for scientificity—with the claim to ultimately explain human action through causal analysis as well.

Fundamental to this complex of problems is likewise the work of Francis Bacon—even if it is scarcely explicitly underlying von Wright's line of argumentation. Of outstanding significance here is his *Novum Organum* (Bacon 2000 [1620]), which programmatically executed the methodical departure from Aristotle's *Organon* already in its title and established induction and empiricism as fundamental principles of scientific research. In Bacon, empirical reductionism is already found *in nuce*, insofar as a sound experiential basis (today: empirical evidence base) is elevated to the *conditio sine qua non* of any science. Bacon is consequential in yet another respect: he postulates—without justifying it—a principled entanglement of causality and action: the cognition of natural causes becomes for him directly the condition of human power to act. This connection will be examined in more detail in the following section.

In the 19th century, the differentiation of the modern social sciences—above all in positivism—was decisively oriented toward the principles of the natural sciences. The methodological foundations of the social sciences trace back essentially to Auguste Comte (1907–1911 [1830–1842]) and John Stuart Mill (1973 [1843]). Comte substantiated the claim to grasp social phenomena modeled after the natural sciences in the form of general regularities, thereby establishing a theory-guided, empirical science of social reality. Mill, in turn, elaborated induction in detail as the methodology of the empirical sciences and explicitly transferred it to the investigation of social reality.

Against positivism, a counter-movement or *turn* formed in the late 19th and early 20th centuries, which von Wright situates within the history of ideas in the understanding, Aristotelian tradition: because of their specific subject matter, the humanities required a different methodology. In his influential studies, Wilhelm Dilthey (1922 [1883]) divided the sciences primarily according to their subject domain: nature versus spirit (mind, *Geist*). Heinrich John Rickert (1921 [1896]) pointed out the limits of natural-scientific concept formation for the historical cultural sciences, while Wilhelm Windelband (1900 [1894]) coined the methodical distinction—influential to this day—between the *nomothetic* (law-seeking) natural sciences and the *idiographic* (capturing the unique and individual) humanities and cultural sciences. Erich Rothacker (1926) took up these foundations to design a comprehensive logic and systematics of the humanities. Common to all these positions is the same fundamental idea: the subject matter of the humanities, and particularly of history, demands a genuine conceptualization and procedural formation that cannot be reduced to the natural-scientific causal model.

A structurally related distinction is found shortly thereafter in the Anglo-Saxon world in Charles Percy Snow's (1965 [1959]) famous thesis of the "Two Cultures." While in the German-speaking world the methodological and epistemological separation between the natural sciences and the humanities was primarily debated, Snow conceived the gulf between a "literary" and a "scientific intellect" primarily as a profound sociocultural and institutional boundary.

2.4 Overcoming the *Methodenstreit* or the Science Wars Through the Complementarity of the Three Traditions

This dispute, in the form of the *Methodenstreit* or Science Wars, at times took on the characteristics of a Manichaean war of faith in "revolution mode". It was not infrequently

based on mutual ignorance and prejudice, so that the opponents largely talked past one another. I have already analyzed in depth the state of this debate at the beginning of the 21st century (Lauer 2017; 2025). This is by no means a mere dispute over quantitative versus qualitative research methods, but rather a multi-layered dispute over methodology that, as I have demonstrated in detail, extends across ten fundamental levels:

- an **axiological level**, on which the non-epistemic (ethical, societal, political) values are negotiated to which scientific practice is committed; e.g., what tasks and goals can and should scientists pursue?
- an **epistemic level**, on which the epistemic norms, conditions of validity, and standards of justification are determined that scientific knowledge must satisfy; e.g., how can knowledge be justified? What norms must scientific research satisfy?
- an **ontological level**, on which the nature and structure of the respective subject area of science are discussed; e.g., what entities, properties, phenomena, relations, or structures can be addressed within the sciences?
- seven **methodological levels**: the level of concepts, propositions, theories, logics, modes of argumentation, methods, and methodological approaches (See below, Figure 7: Three philosophical traditions – descriptive-interpretive, explanatory-prognostic, and practical – and their key characteristics on ten levels.).

In my opinion, neither a naturalistic "*revolution*" nor an interpretivist "*turn*" on its own can offer a viable way out. Rather, the solution lies in the *complementary* further development of scientific approaches under my guiding motif of "connecting tradition and progress". This approach is explicitly directed against the inflationary elevation of methodical innovations into alleged "revolutions" or "paradigm shifts". The classical Kuhnian narrative (Kuhn 1976 [1962]) of irreconcilable breaks and incommensurabilities falls short, as new procedures by no means displace older approaches; rather, science is characterized by a methodologically plural juxtaposition and coexistence. Following Imre Lakatos' research programs (1982 [1978]), Georg Henrik von Wright's concept of tradition (1971), and the evolutionary late work of Thomas S. Kuhn (1977), methodological progress is therefore conceived not as an epochal break, but as a continuous, innovative further development of existing research traditions (cf. Lauer 2025: 100 ff.).

The necessity of such complementarity was already indicated in principle by von Wright: scientific research requires both modes of knowing, as explaining and predicting always presuppose understanding and describing. Instead of another one-sided methodological turn, I therefore advocate an integrative approach that unfolds the complementarity of three philosophical traditions: the descriptive-interpretive, the explanatory-prognostic, and a genuinely practical tradition (Lauer 2017; 2021; 2025).

Extending the classical distinction by Jürgen Mittelstraß (1989) between technical instrumental knowledge (*Verfügungswissen*) and normative orientation knowledge (*Orientierungswissen*), I propose as a third, fundamental category interpretive knowledge (*Verstehenswissen*), which is generated within the descriptive-interpretive tradition. Historiography as a discipline consequently unfolds, analogously to political science, in three complementary subfields: descriptive-interpretive, explanatory-prognostic, and genuinely practical historiography. While descriptive-interpretive historiography generates interpretive knowledge (concerning sense, meaning, and contexts) and explanatory-prognostic historiography generates instrumental knowledge (regarding causalities, causal mechanisms, regularities, and consequences of action), genuinely practical historiography is charged with the rational justification of orientation knowledge (in terms of legitimacy, maxims of action, and future-oriented ought). This constitutes the systematic transference and methodological

advancement of the foundations I developed for political science to historiography (Lauer 2025).

The necessity of this third, practical pillar arises from the structural inability of the two established traditions to methodically and adequately justify and legitimize practical proposals for action and solutions—a systematic deficit analysis that will be elaborated in the following section.

3 Practical Questions in the Humanities and Social Sciences: Limits of Normative Rational Choice Theory, Applied Phronesis, and Applied History

In tackling tasks of political governance and design, legal and economic perspectives continue to dominate both in public discourse and within decision-making institutions. Accordingly, it is primarily the representatives of these two disciplines who are consulted as experts and who claim interpretive authority over societal and political problem situations, while other approaches recede into the background. This dominance is not least the consequence of a systematic withdrawal of history and the social sciences from addressing practical questions of orientation: with the fading of the topos *historia magistra vitae*, historical scholarship lost its traditional claim to provide societal orientation. From the methodological premise that no rules of action, norms, and values can be justified within the framework of empirical analyses (Weber 2011 [1904]), there resulted the widespread neglect of normative questions within the social sciences. Mere empirical-analytical descriptions and explanations, however, are by no means sufficient to ground political agency and to unfold an orienting impact on society.

Even though practical questions by no means dominate the mainstream of the humanities and social sciences, there exist established approaches to addressing them. In the following, three influential conceptions illustrate how this claim is sought to be methodically realized at the beginning of the 21st century and which methodological limitations emerge in the process:

- Representatives of the explanatory-prognostic tradition demand, within the framework of an Applied Social Science, a methodological "revolution" that breaks with the tradition of practical philosophy, especially political philosophy, in order to ground action orientation as social technology (*3.1 Applied Social Science: Normative Rational Choice Theory as Social Technology*).
- In contrast, the Perestroikans postulate a "turn" toward Aristotelian, pragmatic, structuralist, and generally humanistic thought; by recourse to Applied Phronesis, they seek to establish a "Real Social Science" that provides relevant answers for politics and society (*3.2 The Applied Phronesis of the Perestroika Movement*).
- The descriptive-interpretive tradition, especially within historical scholarship, I treat in turn exemplarily on the basis of Applied History (*3.3 The Harvard Concept of Applied History*).
- At the center of the critique stand the methodological weaknesses of all three conceptions—namely, the inability to methodically and adequately develop, justify, and scientifically legitimize practical action recommendations within normative (moral and political) value discourses as well as within pragmatic goal discourses. The most important deficits are summarized at the end of the section (*3.4 Methodological Limits of Applied Approaches: Normative Rational Choice Theory, Applied Phronesis, and Applied History*).

3.1 Applied Social Science: Normative Rational Choice Theory as Social Technology

When addressing the question of how empirical cognition is translated into practical action within the explanatory-prognostic tradition—that is, how concrete social technology emerges from empirical-causal research—the fundamental problem of a merely *Applied Social Science* becomes apparent. In the transition from theory to practice, this approach relies on fundamental assumptions in the philosophy of science that are, however, rarely explicated in the methodological literature. The reduction of practical discourses (normative, pragmatic, technical) to purely technical discourses (Horkheimer 1967 [1947]) is possible only under two tacit premises.

- The first premise is the *assumption of an equivalence between causality and action*. Historically, this directional decision traces back to Francis Bacon's *Novum Organum*. Bacon formulated the idea that there is an equivalence between knowledge of causes and practical capability: "Human knowledge and human power come to the same thing, because ignorance of cause frustrates effect. For Nature is conquered only by obedience; and that which in thought is a cause, is like a rule in practice (Bacon 2000 [1620]: 33, 3rd aphorism, see aphorism 129): "*scientia et potentia humana in idem coincidunt, quia ignoratio causae destituit effectum. Natura enim non nisi parendo vincitur; et quod in contemplatione instar causae est, id in operatione instar regulae est"*; Bacon 1990 [1620]: 80, 3rd aphorism, volume 1). From this postulated equivalence it follows: the recognition of a cause-effect relationship directly serves as a rule of action and vice versa. Klaus Kornwachs designates this as a "transmission rule from knowledge about nature to the rule of action in nature" (Kornwachs 2013: 42), while Mario Bunge speaks of the "pragmatic syllogism" or the "technological rule" (Bunge 1967b: 132–139; Kornwachs 2012: 67). Logically considered, this is a biconditional relationship, which is, however, not formally valid as an inference (Kornwachs 2012: 64 ff.). "In the causalist terminology of today, one would formulate as follows: *Theory and practice are the same or coincide in the same; statements that are true in theory are efficient in practice.*" (Lauer 2025: 129).

- The second premise concerns the *inversion of causal propositions* as an allegedly tautological transformation. This position decisively shapes the works of Max Weber and Karl Popper: Weber postulates that "simple inversions of causal propositions" can justify technical means-end rules, provided that the purpose of action is unambiguously fixed (Weber 1973b [1917]: 529 [491]); Popper speaks analogously of the fact that "from a logical point of view, both the derivation of predictions and the technical application of scientific may be regarded as mere inversions of the basic schema of scientific explanation (Popper 1972: 353). Hans Albert radicalizes this approach by describing the transformation of a theoretical into a technological system as purely tautological: "Since it is a tautological transformation of the system in question, you do not need additional premises. The informational content of a technological system is in no way beyond its theoretical foundation" (Albert 1967b [1965]: 192). At the same time, Albert entangles himself in a contradiction: he admits that the practical formulation of rules "is practically in many cases a considerable feat of imagination," because possibilities of deduction and logical connections "are not mechanizable in important cases" (Albert 1967b [1965]: 197)—which contradicts a purely mechanical-tautological derivation. In fact, according to Kornwachs, between a law-like statement ("If A, then B") and the instruction for action ("If you want to achieve B, try A"), there is merely a pragmatic, but by no means a logical relationship (Kornwachs 2008: 139; Kornwachs

2012: 64 ff.). Bacon's equivalence assumption is tacitly presupposed by Weber, Popper, and Albert, rather than being disclosed as a distinct premise in need of justification.

From these interrelations crystallize three hidden assumptions of the explanatory-prognostic tradition, which are constitutive for understanding the *Methodenstreit* and the distinction between applied and practical science: first, the understanding of causality as a hidden force that holds the world together at its core, causality as the "Cement of the Universe" (Mackie 1974); second, the postulated equivalence between causality and action; and third, the interpretation of the inversion of causal propositions as an allegedly tautological transformation. In addition to these concealed premises, the causal-empirical, logical-mathematical procedure emerges as an openly declared methodological preference.

From this logic follows a consequential confusion and conflation of "applied" (*angewandt*) and "practical" (*praktisch*) science. Applied sciences restrict themselves to inverting already established causalities without establishing an autonomous practical methodology; the attribute "empirical" thereby signals the mere continuation of the natural-science-inspired research methodology. Ethical-normative dimensions (value discourse: what is just or ought to be?) and strategic-pragmatic dimensions (goal discourse: which goals are prudent and desirable?) are systematically bracketed out. What reigns—in Max Horkheimer's sense—is an "instrumental reason" (Horkheimer 1967 [1947]) that can legitimize exclusively a technical *ought*. Weber himself tied the validity of causal inversions to strict conditions—an absolutely unambiguous purpose, fixed social structural conditions, and the exclusive differentiation of means in terms of certainty, speed, and quantitative yield—which are practically never met in political reality, since political means rarely remain value-neutral. Hans Albert consequently concedes: "One must not confuse the relevance of a technological system with a legitimacy for its practical application" (Albert 1967b [1965]: 193). Even if Bo Rothstein's polemical point that this causal and empiricist narrowing produces merely "technically competent barbarians" (Rothstein 2005) overshoots the mark, the purely applied approach fails to meet the requirement of a genuine justification of values and goals.

For the understanding of historical scholarship in the philosophy of science, the distinction between historism (*Historismus*) and historicism (*Historizismus*) is central. The current of *Historismus*, decisively shaped by Leopold von Ranke, is based on the premise that every historical epoch represents an individual, unique phenomenon and must be understood primarily from within its own context. Social-scientific criticism of *Historismus* traditionally starts from two points: on the one hand, it is accused of a tendency toward a conservative affirmation of existing conditions; on the other hand, it is criticized for the absence of generalizations and regularities—in contrast to the social sciences, which were heavily positivist at the time. Popper, by contrast, decidedly criticizes the search for universal regularities and teleological developments in history. In order to terminologically distinguish this form of deterministic philosophy of history from classical *Historismus*, German uses the term *Historizismus* (Popper 2003 [1957]). Popper's critique is directed against the attempt—prominently represented by Plato, Hegel, and Marx—to formulate historical laws of development and from them predict societal futures (Popper 1980 [1944]). Instead of such comprehensive historical laws, Popper locates scientific utility rather in empirically tested causal statements (if-then statements): similar to Max Weber, he grounds on this basis a piecemeal social engineering that, through an "inversion of the basic schema of scientific explanation" (Popper 1972: 353), translates causal relations into practical rules of action for targeted reforms.

A prime example of this methodological narrowing within the explanatory-prognostic tradition is Normative Rational Choice Theory, as advocated, for instance, by Russell Hardin in his programmatic contribution "Normative Methodology" (Hardin 2011 [2009]). Hardin claims a monopolistic supremacy for normative rational choice theory and dismisses competing

approaches—such as contractualism or shared-value theories—as increasingly esoteric and irrelevant: "rational choice methods are taking over normative theorizing and theories" (Hardin 2011 [2009]: 99). However, this claim to leadership is neither empirically substantiated nor methodologically fulfilled in the handbook.

Methodologically, normative rational choice theory remains narrowed to a purely technical discourse of means. Its normative premises (liberalism, utilitarianism) and its ontological postulates (methodological individualism, instrumental utility maximization) are presupposed as mere axioms. In principle, they cannot be justified from within the rational choice approach itself. Thus, a fundamental deficit of justification arises: the normative foundations of the theory lie entirely outside its own methodological toolkit.

In summary, it can be stated that the paradigm of Applied Social Science narrows political praxis to causal technocracy and social technology. By obscuring fundamental normative and pragmatic questions, proponents of the rational choice approach reduce scientific policy advice to instrumental means discourses (for a detailed examination of rational choice theory, see Lauer 2025: 300–320).

To overcome this reduction, however, a genuinely practical science is needed. This does not content itself with the mere inversion of causal propositions, but systematically legitimizes value, goal, and means discourses on the basis of an autonomous practical methodology—in complementary interlocking with descriptive-interpretive and empirical-explanatory research (Section 4).

3.2 The Applied Phronesis of the Perestroika Movement

The so-called Perestroika movement formed in 2000 through an anonymous, polemical email under the pseudonym "Mr. Perestroika," which leveled sharp methodological and organizational criticism against the scientistic establishment of political science (Mr. Perestroika 2005 [2000]). Sanford F. Schram articulated the programmatic profile of this movement in his essay "Return to Politics" (2003), building directly on Bent Flyvbjerg's manifesto *Making Social Science Matter* (2001). A heterogeneous group of scholars joined this initiative, whose development and impact were evaluated in 2015 in *Perspectives on Politics* (see also Monroe 2005 and Lauer 2025: 190 ff.).

On the basis of a reinterpretation of Aristotelian *phronesis* (prudence/practical wisdom) systematically expanded to encompass questions of power, Flyvbjerg and the phronetic Perestroikans advocate a "Real Social Science" (Schram/Caterino 2006; Flyvbjerg/Landman/Schram 2012). Although they share central premises of interpretive research—in particular the assumption that contexts of meaning in texts, symbols, and practices must first be understood before causal connections can be explained—they demand more than a purely descriptive turn: their objective is a problem-oriented, publicly impactful social science, especially political science. This approach is intended to proceed bottom-up, utilizing case studies and power analyses to identify societal *tension points* and working toward overcoming them through *applied phronesis*.

From the perspective of the philosophy of science, the construction of an allegedly "real" social science as a counter-model to natural-science-oriented research proves especially problematic. Through the sweeping devaluation of the latter as "inauthentic" or methodologically inadequate, the Perestroikans generate an artificial antinomy that fails to do justice to the actual differentiation and complementarity of scientific forms of cognition.

Furthermore, Flyvbjerg fails to provide a scientifically viable justification for normative decisions: instead of a rational legitimation, he merely points to subjective evaluations, context-dependent worldviews, and the moral notions of particular reference groups. At the same time, the phronetic program conflates the justification of practical knowledge (*knowing that*) with situational capability (*knowing how*) and political praxis. Consequently, applied phronesis—similar to purely technical normative rational choice theory—remains truncated to

an instrumental discourse of means, rather than unfolding value and goal discourses in a methodologically grounded and rational manner. The researcher is thereby expected to be both a detached scholar and a political activist—a role expectation that diametrically contradicts both the modern scientific division of labor and the differentiation of functional roles within the system of science.

From this critique arise four central problems:

1. **Lack of normative legitimation:** The Perestroikans claim to produce socially relevant and practically applicable knowledge. However, they fail to provide a methodically viable answer as to how the normative goals that this knowledge is intended to serve can be justified. This raises the fundamental question of why certain societal conditions or transformations should be regarded as "better" in the first place. For a research program that explicitly aims at societal intervention and emancipation, this question is not secondary, but constitutive.
2. **Circular and inconsistent norm justification:** Furthermore, it remains unresolved who decides, and with what authority, what is to be regarded as desirable. On the one hand, Flyvbjerg recurs to the moral attitudes of the researchers and their respective reference groups; on the other hand, he retreats to a context-dependent consensus of the investigated community. This shift in the normative criterion occurs without any methodological clarification of how both forms of justification are to be reconciled. While a universal standard is explicitly rejected, the consequences of a purely situational benchmark are not sufficiently reflected upon—the approach inevitably falls into the trap of relativism.
3. **Distorted understanding of science:** Furthermore, the construction of an antagonistic opposition to natural-science-oriented social science is problematic. The latter is broadly imputed to strive for deterministic universal laws and to ignore context, individual cases, and local knowledge. This distorted image, however, by no means corresponds to the self-understanding of modern empirical science: scientific statements are fundamentally fallibilistic and hypothetical; they are subject to the proviso of falsifiability and possess defined scopes of validity. In addition, modern causal research systematically takes contextual conditions and causal complexity into account—for instance, through qualitative comparative analysis (QCA) or process tracing based on causal-process observations (CPOs). Phronetic critique thus attacks a positivist "straw man" that misses the methodological reality of contemporary research.
4. **Conflation of science and political engagement:** Finally, the phronetic program directly merges scientific cognition with a claim to political action. The researcher is required not only to generate theoretical knowledge, but simultaneously to develop practical capabilities and deploy them activist-style in the interest of affected groups. As a result, the boundary between methodical analysis and political intervention blurs. While responsible science by no means precludes societal relevance, it is highly problematic to derive directly from the scientific role an obligation to political action or even revolutionary praxis. This does justice neither to the necessary division of labor and role differentiation of modern science nor to the inherent dynamics of political decision-making processes.

The demand for societal relevance is undoubtedly justified, but on its own it does not yet ground a new philosophy of science. The program of Applied Phronesis remains methodologically deficient because it leaves unanswered the fundamental question concerning the rational legitimation of norms and goals. The overcoming of the *Methodenstreit* consequently lies not in an activist counter-revolution, but in the complementary interlocking of three autonomous ways of knowing: the empirical-descriptive comprehension of contexts of meaning, the empirical-explanatory explanation of causal mechanisms, and a genuinely practical science that rationally justifies value, goal, and means discourses (Section 4).

3.3 The Harvard Concept of Applied History

The modern conception of Applied History attempts to bring practical questions back into the focus of historical research, consciously connecting with a tradition that dates back to Thucydides (Bew/Ehrhardt/Hessérus 2023; Guldi/Armitage 2014). Internationally, a large number of renowned historians, initiatives, and networks advocate the concept of historical policy consulting. Taking the Harvard network as an example (Neustadt/May 1986; Allison/Ferguson 2023 [2016]), two defining features of this approach can be identified:

- First, the network advocates for the systematic integration of historical knowledge into political and social decision-making processes. The goal is an innovative "approach to revitalising applied history in the academy and promoting its use in governement, business and other sectors of society" (Allison/Ferguson 2023 [2016]: 464), which is to be realized, among other things, through the establishment of institutionalized historical advisory councils at the governmental level—analogous to existing economic advisory bodies.
- Second, compared to the scientific mainstream, the approach is characterized by modest methodological ambitions. Programmatically, Neustadt and May emphasize that their work is not an ordinary "history book," but rather about "how to use experience" (Neustadt/May 1986: xxii)—that is, about the practical utilization of historical experience, rather than its empirical penetration. Correspondingly modest are the methodical claims of the work, which Allison and Ferguson (2023 [2016]: 451) recommend as a foundation in their manifesto: the "mini-methods," "taken in sequence," are merely intended to provide a "checklist of questions to be asked early instead of late" (Neustadt/May 1986: xvi).

I would like to highlight positively the dynamic conception of history: *Thinking in Time* is the programmatic title of the book by Neustadt and May (1986). The authors demand that history be understood not as a static snapshot, but as a dynamic process. Decisions stand within a historical stream that has an antecedent history and entails long-term consequences. Those who understand how conditions have emerged over time can better assess where trends are heading.

Although the relevance of historical knowledge for practical questions of the future is emphasized, it remains largely unreflected to what extent practical—normative, pragmatic, or technical—questions require an autonomous methodology that is categorically distinct from empirical-analytical research designs. A methodology of historical social and policy consulting that systematically takes this distinction into account does not exist. A structurally analogous deficit is evident, as I have already shown elsewhere (Lauer 2025: 342–348), in the subdiscipline of political philosophy: there, too, the insufficient separation of substantive and methodological questions means that the level of methodological reflection lags behind the standard of empirical-analytical political science. Since the emergence of the modern sciences

in the 19th century, it has become virtually a hallmark of a developed science that substantive and methodological questions are treated in separate books.

My solution was the establishment of a practical political science based on a practical methodology. I would also like to transfer this concept to practical historiography (Section 4).

3.4 Methodological Limitations of Applied Approaches: Normative Rational Choice Theory, Applied Phronesis, and Applied History

The approaches to addressing practical questions that can be assigned to the descriptive-interpretive procedures of Applied Phronesis and Applied History, as well as to the explanatory-prognostic procedures of Normative Rational Choice Theory as social technology, exhibit substantial deficits upon closer methodological examination (elaborated in detail in Lauer 2017 and 2025). At their core, these approaches share a common problem: they apply existing scientific knowledge to practical problems without methodologically elaborating an autonomous scientific justification of practical judgments. In the following, I summarize the most important objections. My call for a genuinely practical—and not merely applied—science relies on four central arguments:

1. **Overcoming a truncated social technology.** Applied science frequently attempts to establish practical relevance by directly converting empirical causal statements into technical rules of action. The step from knowledge of what is and what effects certain measures have, to the question of what ought to be done, is thereby methodologically shortened. As a result, political praxis is reduced to a mere "instrumental reason" (Horkheimer 1967 [1947]). Normative (moral and political) questions—such as those concerning justice, legitimacy, or that which ought to be—can no more be treated rationally in this manner than can pragmatic questions concerning appropriate goals and strategies of action.
2. **Deficits of previous practical approaches.** Both Applied Phronesis and Normative Rational Choice Theory exhibit specific methodological weaknesses. Applied Phronesis bases normative judgments on subjective or context-dependent value orientations of reference groups, thereby threatening to conflate scientific analysis with political activism. Normative Rational Choice Theory, by contrast, presupposes certain normative premises—such as utilitarian or liberal principles—without systematically and rationally justifying their normative validity itself.
3. **Rational justifiability of practical knowledge.** It is precisely this gap between scientific cognition and practical judgment that a genuinely practical science is intended to close. Practical knowledge needs to be abandoned neither to subjective arbitrariness, ideology, nor mere power. Rather, it can be differentiated into distinct forms of knowledge and rationally justified: normative knowledge regarding what ought to be, what is just and legitimate; pragmatic knowledge regarding which goals and action strategies are prudent and appropriate under given conditions; as well as technical knowledge regarding the means by which specific goals can be efficiently achieved.
4. **Methodological autonomization of practical science.** In the tradition of political philosophy, substantive theoretical content and its methodological foundations were frequently not separated from each other systematically. While empirical political science possesses an elaborated methodology and numerous textbooks on methods, a comparably systematic methodology for practical inquiries is lacking.

On account of these deficits, I argue for the development of a genuinely practical political science as well as a practical historiography, in which practical knowledge—normative, pragmatic, and technical—can be independently and rationally justified. The decisive difference from applied approaches thus lies not primarily in the fact that practical science pursues different objects or different goals, but in the fact that it makes the transition from scientific cognition to justified practical judgments itself the subject of an autonomous methodology. In order to systematically unfold this demarcation, I turn in the following to the philosophical foundations of a practical historiography.

4 Philosophical Foundations of a Practical Historiography as a Science of Orientation

A practical historiography must distance itself from the truncated models of rationality examined above, which, despite their methodical opposition, remain on the threshold of genuinely practical reason: Normative Rational Choice Theory reduces historical-social action to a closed system of formal means-end rationality and degrades history to a mere database of ahistorical behavioral equations; Applied Phronesis, while reviving the Aristotelian concept of practical wisdom, truncates it to strategic navigation in institutional case studies, whereby prudence degenerates into a situational management tool and its ethical-normative essence threatens to be lost. Applied History suffers from a fundamental methodological deficit: largely devoid of theory, it truncates historical experience to schematic analogies and operational checklists, rather than grasping and regulating processes in their complexity and contingency.

Against these narrowings, practical historiography claims not an instrumental rationality, but a genuinely practical reason that is exhausted neither in calculative efficiency nor in situational maneuvering, but subjects normative (moral and political) values as well as pragmatic goals of action and horizons of meaning themselves to critical examination: history provides neither mechanical algorithms nor pragmatic recipes for individual cases, but trains that reflecting power of judgment which transforms empirical experience into normatively grounded orientation knowledge.

The philosophical foundation of practical historiography is structured into four domains: axiology, ontology, epistemology, and methodology. Moses and Knutsen concisely summarize the fundamental questions in the philosophy of science as the "three musketeers of metaphysics" (Moses/Knutsen 2019 [2007]: 4), yet they restrict themselves to ontology, epistemology, and methodology. By contrast, the present investigation connects with my earlier works (Lauer 2017, 2021, 2025), which postulate axiology as an autonomous foundation alongside the other three. This expansion proves to be philosophically compelling: only through the axiological dimension can orientation knowledge be demonstrated as a genuine form of knowledge that cannot be reduced to mere empirical facts. The four foundational domains are differentiated below for practical historiography:

- **4.1 Axiological Foundations:** Generation of Orientation Knowledge
- **4.2 Ontological Foundations:** Tradition as a Reflecting Spiral of Identity Transformation
- **4.3 Epistemological Foundations:** Ideals and Predicates of Scientific Research
- **4.4 Methodological Foundations:** Procedures and Quality Criteria of Practical Research

4.1 Axiological Foundations: Generation of Orientation Knowledge

In the domain of axiology, the central issue is the normative grounding of scientific cognition: What tasks and goals can and should researchers pursue in practical historiography? To what extent can values be scientifically investigated? What societal value do historical insights possess, and how is the relationship between historiographical judgment and societal praxis configured?

In my earlier works (Lauer 2017, 2021, 2025), I analyzed the influence of non-epistemic norms and values on the research process and argued for strictly distinguishing between different questions of value, as the classical *Werturteilsstreit* (value judgment dispute) frequently conflates these dimensions. Transferred to practical historiography, six axiological dimensions can be systematized:

1. **Value-relation (selection of topics and problems):** The personal interests and value convictions of researchers inevitably guide the selection of topics and problems, but they need not determine scientific results. This poses no fundamental obstacle to objectivity, since subjective motives can be neutralized through methodical control. While representatives of the explanatory-prognostic (Galilean) tradition rightly see no contradiction between existential commitment and value-free research, post-positivist currents such as the Perestroikans dispute this separability. The present approach aligns with the Galilean position: value-free research remains methodically possible even when researchers are guided by individual values.
2. **Scientific relevance and authority of research:** The societal and political significance of science does not contradict methodological rigor; rather, it is precisely its scientific quality that establishes its societal authority. Science can only ever point out conceivable stances and relevant facts to political actors, but cannot itself decide on values—Weber (Weber 1973c [1917]) strictly rejects the role of the scientist as a prophet or demagogue in the lecture hall. A practical historiography therefore fulfills its mediating function precisely by providing actors not only with descriptive interpretive knowledge (*Verstehenswissen*) and empirical instrumental knowledge (*Verfügungswissen*), but also by opening up theory-guided orientation knowledge (*Orientierungswissen*).
3. **Epistemic values, values for science:** Science rests on epistemic and methodological norms that secure its quality and authority. From these, societal and political—hence non-epistemic—conditions and objectives are to be categorically distinguished. Epistemic values encompass criteria shared by the scientific community, such as truth, logical consistency, and empirical adequacy. Non-epistemic values, by contrast, concern external contexts. For a methodologically reflected historiography, both levels do not come into conflict as long as their difference is taken into account and maintained.
4. **Values as the subject matter of science:** Norms and values can, of course, be empirically investigated. As soon as they become the subject matter of empirical research, they are analyzed as factual states of being (*Seinstatsachen*) and not as normative validity claims—they undergo the shift in status described by Max Weber from that which is valid (*das Geltende*) to that which exists (*das Seiende*) (1973c [1917]). Georg Henrik von Wright specified this distinction with recourse to Ingemar Hedenius (von Wright 1963: 105), differentiating between a truth-definite deontic logic

of "ought-to-be" (*Sein-Sollen*), i.e., statements about existing norms (von Wright 1977a [1951]), and a non-truth-definite logic of norms of "ought-to-do" (*Tun-Sollen*), i.e., the positing of prescriptive rules of action (von Wright 1977b [1974]).

5. **Value basis and context:** Non-epistemic values can unconsciously influence scientific inquiries. A precise philosophical and methodological foundation is intended to prevent such presuppositions from unreflectively determining research. While the explanatory-prognostic tradition claims a presuppositionless ascertainment of facts, currents following the Frankfurt School (Adorno/Albert/Dahrendorf/Habermas/Pilot/Popper 1976 [1969]) as well as the Perestroikans doubt the possibility of methodical neutrality. Practical historiography, by contrast, maintains that extra-scientific influences remain controllable and neutralizable through source criticism and methodical rigor.
6. **The value judgment problem in the narrower sense:** Value-free empirical research is possible, but norms and values cannot be derived empirically from facts; their justification requires, rather, a genuinely practical methodology. According to Weber, an empirical science is incapable of constituting binding ought-propositions (*Sollenssätze*), but can merely demonstrate consequences of action and means-end relations. This limitation, however, applies only to empirical research, not to scientific thinking as such. Weber himself, with the concepts of the "philosophical disciplines" and "practical social science" (Weber 2011 [1904]: 56), opened up the space for a rational discourse on normative value axioms—a path that practical historiography takes up again and methodically expands.

From this differentiation it follows: A practical historiography is both possible and necessary. It refuses to reduce normative questions of orientation to mere social-technological means-end calculations, and requires an autonomous methodology for the rational justification of orientation knowledge. Thereby it demarcates itself equally from naturalism and from relativistic counter-positions.

4.2 Ontological Foundations: Tradition as a Reflecting Spiral of Identity Transformation

The ontological foundations concern the subject domain of historiography within the system of science: What kind of problems, what entities, properties, phenomena, relations, or structures are addressed within historiography?

The subject matter of historiography is not a static substance, but a relational, dynamic processual framework. Historical reality unfolds in a temporal depth dimension: it must be disclosed descriptively and hermeneutically in its meaning content and analyzed in its causal operative forces in order to serve practical reason as a foundation for open-ended coordinates of action. This transition from historical evolvedness (*Gewordenheit*) to future shapeability presupposes an ontological understanding that conceives historical continuity not as stagnation: Tradition as a Reflecting Spiral of Identity Transformation.

Tradition as a Dynamic Foundation: Appropriation, Preservation, and Transformation: Tradition forms the inescapable foundation for interpreting the present and for orientation in future action. It unlocks the historical state of having-become and provides the coordinates for future-oriented judgments. The decisive challenge for both bearers and researchers of tradition consists in not misunderstanding it as static repetition or mere lingering in the ever-same. Rather, tradition is an ontological event *sui generis*: a dynamic context of life and meaning that each generation re-appropriates, preserves, and inevitably transforms in the mode of practical trial.

This dialectic is exemplarily condensed in the motto of the Transylvanian Saxons, *"Mir wallen bleiwen wat mir sen"* ("We want to remain what we are"). Hermeneutically turned, this postulate proves to be not a reactionary capacity for persistence, but a dialectical mandate: in times of historical upheaval, permanence realizes itself precisely as a form of change, not as its negation. Whoever wants to remain what they are must change in order to keep the normative as well as the pragmatic core of their identity alive under altered environmental conditions. Only the technical core changes extremely rapidly.

From the Hermeneutic Circle to the Reflecting Spiral of Transformation: In a critical reception and systematic advancement of Hans-Georg Gadamer's philosophical hermeneutics, I conceive tradition not as museal conservation, but as continuous recontextualization. Gadamer (2010 [1960]), drawing on Heidegger, grasps understanding as a circular process and defines it—following Aristotelian *phronesis*—primarily as application (*Applikation*), hence as a practical act of application and living enactment. Hans Poser has specified this figure of thought in the philosophy of science: the hermeneutic circle basically describes a spiral movement, since the process of understanding never returns to its fixed starting point, but expands and deepens in advancing rotations (Poser 2012 [2001]: 231).

I extend this approach beyond the purely epistemological model and systematize it into a reflecting spiral of transformation: While Poser's model reflects the structure of individual understanding—the progressive deepening of knowledge by a single interpreter regarding their subject matter—the spiral postulated here is conceived ontologically, collectively, and intergenerationally; it describes both the cognitive deepening of the individual subject and the cumulative transformative process of a historical community across generational succession. Individual as well as collective identity remains viable only insofar as individuals and generations alike translate the handed-down heritage into their specific lifeworld, refract it in the grappling with contemporary crises, and re-perspectivize it. Each historical watershed and each re-appropriation describes a further turn of the transformation spiral and transfers the collective to a qualitatively altered level of cognition and action. Thus, neither progress nor regression is predetermined; rather, the historical process remains normatively open-ended. Permanence is therefore not a static state, but the enacting form of historical processes of change. On this ontological basis, identity is preserved from museal petrification and simultaneously immunized against ethno-essentialist myths: appropriation, preservation, and transformation prove to be inseparable moments of one and the same historical praxis.

4.3 Epistemic Foundations: Forms of Knowledge, Ideals, and Predicates of Scientific Research

The epistemic foundations concern the grounding of cognition and knowledge in historical research: From which epistemic premises does it proceed? What forms of knowledge and theories is it capable of legitimizing, to which normative ideals is it subject, and where do the limits of historical cognition lie?

Three forms of knowledge from three traditions: Building upon my works in the philosophy of science (Lauer 2017, 2021, and 2025), three complementary traditions can be made fruitful for historical scholarship. As empirical traditions, the descriptive-interpretive and the explanatory-prognostic traditions secure intersubjectively verifiable historical evidence according to rigorous methodical standards, yet generate different types of knowledge. To this end, I expand the terminology of Jürgen Mittelstraß (1989), who distinguishes merely between instrumental (*Verfügungswissen*) and orientation knowledge (*Orientierungswissen*), by adding the category of interpretive knowledge (*Verstehenswissen*): while the descriptive-interpretive tradition elaborates this *interpretive knowledge* added by me, which hermeneutically unlocks the intentional meaning and the historical evolvedness (*Gewordensein*) of historical phenomena, the explanatory-prognostic tradition provides the factual, causal, and structural knowledge of that which has been, already outlined in Mittelstraß—that is, *instrumental knowledge*.

The practical tradition furthermore transforms this twofold material into theory-guided *orientation knowledge*: In deliberate demarcation from theory-poor Applied History, practical historiography devises a regulative compass from historical spaces of experience. History functions here neither as a quarry for historical analogies nor as the subject matter of a naive factual positivism, but trains the reflecting power of judgment in its normative, pragmatic, and technical dimensions. It promises no causal recipes or ready-made judgments, but provides the reflective material for deliberating on corridors of action, value conflicts, path dependencies, and contemporary dilemmas of action; by distinguishing these three dimensions from the outset instead of technocratically conflating them, it systematically bypasses the naturalistic fallacy.

Likewise, practical historiography demarcates itself from two truncated models of rationality which, despite their methodical opposition, remain on the threshold of genuinely practical reason: Normative Rational Choice Theory reduces historical-social action to a closed system of formal means-end rationality and degrades history to a mere database of ahistorical behavioral equations; Applied Phronesis, while reviving the Aristotelian concept of practical wisdom, truncates it to strategic navigation in institutional case studies, whereby its ethical-normative core threatens to be lost.

Ideals and Predicates of Scientific Research: Truth-Definite Systems of Propositions versus Non-Truth-Definite Rules of Action

A methodically viable distinction among these forms of knowledge requires recourse to formal logic—a dimension that is almost entirely eclipsed in historiographical methodologies. Even practice-oriented approaches frequently content themselves with aphorisms, such as Bent Flyvbjerg (2001: 38), who, citing Pierre Bourdieu, states: "[P]ractice has a logic which is not that of logic." An engagement with deontic logic or the logic of norms is omitted. The result is a twofold confusion: while hermeneutic and post-positivist currents prematurely declare the separation of *is* and *ought* impossible, scientistic approaches believe that historical causal statements can simply be inverted and transformed into supposedly "normative statements." For purely logical reasons, however, a fundamental differentiation between empirical systems of propositions on the one hand and practical norms and rules on the other is indispensable (Lauer 2025: 262–266; see there also for the corresponding source references, which are omitted here due to space constraints):

- **Logical level of empirical sciences (truth-definite systems):** Empirical systems of propositions—whether descriptive, explanatory, or prognostic—are subject to the ideal of truth. They operate within logical systems that qualify propositions as true or false: propositional and predicate logic examine claims about states of affairs for truth and falsity; modal logics capture ontological and temporal modalities via alethic modal logic (necessity, possibility, contingency), tense logic, and epistemic-doxastic logic (knowledge and belief). With recourse to Georg Henrik von Wright (1963), who refers to Ingemar Hedenius, deontic modal logic ("ought-to-be" / *Sein-Sollen*) is also to be categorically assigned here: it falls under truth-definite systems because it merely makes statements *about* norms ("It is historically documented that rule X was prohibited"). As Max Weber (1973b [1917]: 531) concisely formulated, that which is normatively valid loses its character as a norm as soon as it becomes the subject of empirical research: it is treated as an existent (*Seiendes*), not as a validity (*Geltendes*).
- **Logical level of practical sciences (non-truth-definite rule systems).** For practical discourses, the classical criterion of truth fails. Jørgensen's dilemma (Jørgensen 1937–38) describes the aporia that normative sentences ("Do your duty!") are not truth-apt, yet rational justification presupposes logical inference. Practical historiography

responds to this dilemma by subjecting practical systems of demands to autonomous, non-truth-definite logics and truth-analogous predicates. The logic of norms ("ought-to-do", *Tun-Sollen*), unlike the "ought-to-be" (*Sein-Sollen*) directed at existing states, relates to actions and action verbs (von Wright 1977a and 1977b); normative demands are not true or false, but claim normative correctness (at the ethical-individual level) or justice (at the political-collective level). In pragmatic discourses, the ideal of *phronesis* (*Klugheit*, practical wisdom) governs: strategies are assessed as wise or unwise (prudent/imprudent). The logic of execution (*Durchführungslogik*) of technical rules, in turn, shows that causal statements cannot be mechanically inverted into instructions for action. As the philosophy of technology following Mario Bunge, Klaus Kornwachs, and Hans Poser has shown, action-oriented disciplines possess a *sui generis* character. Technical and methodical rules in means discourses follow a logic of execution whose predicates are not true or false, but effective or ineffective, appropriate or inappropriate. Consequently, practical sciences do not consist in mere subsumption under pure laws, but rest on their own methods and on distinct acts of purpose-setting (*Zwecksetzungen*).

Overarching ideals of scientific research: From this logical differentiation result seven overarching ideals that historical research must satisfy across all three traditions: *rationality*, since practical and normative judgments must likewise be subject to the rules of logical consistency and rational discourse; *capacity for orientation*, since historiography must not exhaust itself in the reconstruction of facts, but must provide methodically secured orientation knowledge; *justifiability*, since practical proposed solutions and normative orientations must be intersubjectively testable and discursively redeemable; *consistency (freedom from contradiction)*, since both empirical systems of propositions and practical regulations must preserve formal-logical consistency; *adequacy*, since appropriate logical evaluation standards must be applied to the distinct forms of knowledge (understanding, explaining, orienting); *practical efficacy*, since technical rules of action and institutional instruments must be measured by their effectiveness according to the logic of execution; and *just order*, which remains the normative vanishing point of practical reason at the political-collective level.

4.4 Methodological Foundations: Procedures and Quality Criteria of Practical Research

As the fourth foundation of scientific research, methodology is dedicated to three guiding questions: Which methods and procedures are applied in practical historiography, where do their epistemic scopes and limits lie, and via which quality criteria is their scientificity guaranteed? The core methodological challenge consists in mediating historical facticity and practical *ought*—differentiated into normative values, pragmatic goals, and technical means—without committing the naturalistic fallacy.

Empirical historiography—whether with descriptive-interpretive or explanatory-prognostic intent—initially provides only the particular: facts, source findings, and individual cases. History in itself contains neither deterministic laws of nature nor prefabricated instructions for action for what is to come. The methodological achievement of practical historiography therefore transcends mere description: by means of the reflecting power of judgment, it synthesizes the empirical material and constitutes from the findings of that which has evolved that regulative guideline—in Kantian terms, a *focus imaginarius* (Kant 1956 [1781/1787]: B672)—which provides society and politics with a scientifically grounded compass for future action. Kant himself applied this focus to understanding history as a whole (Kant 1999 [1784]); the present work, by contrast, relates it more narrowly to the horizon of expectation of future action. This compass of orientation is, however, not a uniform instrument, but differentiates methodically analogously to the discourse levels of practical reason.

The Architecture of Practical Reason: Means, Ends, and Values: Practical philosophy distinguishes three discourse levels that can be arranged hierarchically as evaluative stages of practical rationality: with each ascending stage, the normative claim to validity increases, while each superordinate level limits the functional scope of the subordinate one. This differentiation was elaborated by Otfried Höffe (2009 [2007]) with recourse to Aristotle and Kant; it is conceptualized here terminologically as a systematics of means, goal, and value discourses (first introduced in Lauer 2017):

1. **Means discourses (Technical rationality):** At the first stage stand instrumental justifications that answer the question of *how* something can be done. Means and procedures are evaluated here according to the quality criterion of functional suitability and efficiency—initially regardless of the legitimacy of the pursued intentions. This technical rationality follows rules of skill (*Regeln der Geschicklichkeit*) and is divided into technical individual rules (1.1) and sociotechnological regulations (1.2) (Höffe 2009 [2007]: 23).
2. **Goal discourses (Pragmatic rationality):** The second evaluative stage provides justifications for action strategies and answers the teleological question of *to what end* (*wozu*) something ought to be done. The goals of action themselves become the object of rational examination, whether in the realm of individual conduct of life or in relation to the state, market, and civil society. This pragmatic rationality follows counsels of prudence (*Ratschläge der Klugheit* / *phronesis*), is subject to the quality criterion of the prudent/imprudent, and is divided into individual-pragmatic rules (2.1) and sociopragmatic regulations (2.2) (Höffe 2009 [2007]: 24–25).
3. **Value discourses (Normative rationality):** The third and highest evaluative stage constitutes the ethical-moral justification of maxims of action and answers the question of *why*—that is, on what moral grounds and by what right—an action is commanded or prohibited. At this level, even expedient values are subject to a test of legitimacy. This rationality follows the categorical imperative, is subject to the quality criteria of normative rightness and political justice, and differentiates into virtue ethics or ethical-moral norms (3.1) and legal ethics or norms of justice and law (3.2) (Höffe 2009 [2007]: 26).

Only in the interlocking of these three stages is a complete justification of practical action realized: while technical feasibility (*How*) and pragmatic expediency (*To what end*) open up the space for action, normative validity (*Why*) grounds the legitimacy of praxis and simultaneously marks its ethical and legal boundaries.

The Asymmetric Renewability of the Three Discourse Levels: Even though in modernity the horizon of expectation is increasingly decoupled from the inherited space of experience, as Reinhart Koselleck has shown (Koselleck 1989 [1975]), historical experience remains indispensable for the orientation of the present. The methodical viability of the historical compass, however, varies fundamentally along the three discourse levels. Value and goal discourses resemble a compass in the proper sense: they indicate a fundamental direction without dictating a rigid path. They prove their worth precisely by remaining capable of orientation across changing historical contexts. The purely technical means discourse, by contrast, resembles a GPS navigation system: it calculates operative routes for a fixed, technologically defined environment—yet abruptly loses its validity as soon as system parameters change. Just as a navigation device with obsolete cartography leads astray, whereas the magnetic compass points reliably North even in unknown terrain, the three discourses shape historical analysis in an asymmetric manner:

1. **Technical-instrumental means (the efficient/inefficient)** share the renewability of normative and pragmatic discourses only to a very limited extent: purely functional instruments are subject to historical wear and tear and become obsolete irreversibly. In contrast, institutional social techniques—such as legal orders, administrative structures, or diplomacy—contain substantive normative and pragmatic components. While the mere tool perishes, the institutional forms of social action coordination and the fundamental dilemmas of human decision-making remain renewable across time.
2. **Pragmatic goals (the historically prudent or imprudent)** are examined in the goal discourse for their transferability. Their historical contingency does not render them obsolete, but renewable within the horizon of altered framework conditions.
3. **Normative foundations (the politically just and morally right)** can be interrogated in the value discourse. The historical heritage is by no means uncritically handed down: only in the act of an autonomous, self-legislating appropriation do inherited principles of law and morality transform into a binding *ought* for the present. This principle claims validity for all practical discourses: in pragmatic goal and technical means discourses as well, historical continuity occurs not through mere reproduction, but solely in the mode of reflecting appropriation and application-oriented advancement.

The methodical advancement of this tradition grounded in practical philosophy provides a crisis-resilient foundation for the scientific investigation of contemporary problems. It proves incomparably more viable than those countless short-lived "turns" and epistemic "revolutions" since Francis Bacon's *Novum Organum* (Bacon 2000 [1620]) that have plunged modern thought into a permanent oscillation between natural-scientific hegemony and counter-reactions from the humanities (Lauer 2025).

5 Synthesis, and Outlook

Contemporary social and political challenges demand, alongside interpretive knowledge (*Verstehenswissen*) and instrumental knowledge (*Verfügungswissen*), above all scientifically grounded orientation knowledge (*Orientierungswissen*). While economic and legal expertise dominates public decision-making, the orienting potential of history and political science remains theoretically and methodologically underdetermined. The present study addresses this gap by conceptualizing practical historiography as an autonomous discipline for generating orientation knowledge.

At the core of this work lies a tripartite system of philosophical traditions that systematically and complementarily integrates descriptive-interpretive reconstruction, explanatory-prognostic analysis, and practical reflection. Practical tradition mediates between normative value discourses, pragmatic goal discourses, and technical means discourses to ensure a methodologically controlled transition from empirical findings to practical judgment. In contrast to existing approaches—such as Applied History, Applied Phronesis, and Normative Rational Choice Theory, which run afoul of the is-ought problem, succumbing to the naturalistic fallacy, and remain confined to instrumental means discourses—this framework develops genuine norm-justifying validity.

Theoretically, this approach is grounded in a reconceptualization of *Tradition as a Reflecting Spiral of Identity Transformation*: tradition functions neither as a static inventory nor as a museumized object of preservation, but as a dynamic space of experience and an open horizon of possibilities. The central thesis is: Practical historiography does not provide deterministic forecasts of the future, but constitutes a rationally grounded compass for assessing present and

future spaces of action—both within normative (moral and political) value discourses and within pragmatic goal discourses. Here, it is solely the means discourse that condenses into the logic of an operative navigation system: while values and goals indicate an overarching direction, only technical-instrumental means can be specified in action-practical terms for concrete decision-making situations.

From this arose the **guiding questions** of this investigation:

- How can autonomous subjects—both as individuals and as members of communities—reflectively shape the path from yesterday to tomorrow and transform historical experience into open-ended practice?
- On what philosophical foundation can practical problems be rationally addressed and the associated judgments and action choices justified?
- How can a practical historiography, on this basis, generate methodologically controlled orientation knowledge that provides a reliable direction for future social and political decisions?

This concluding chapter consolidates the theoretical and methodological findings of the study in three steps. First, it synthesizes the central results (5.1). Second, it illustrates the practical viability of the conceptual framework by sketching an ongoing project on the Transylvanian Saxon cultural heritage in the age of generative AI (5.2). Third, it widens the perspective in a theoretical outlook on the Anthropocene and asks how practical historiography and the transformation model of tradition could respond to the planetary challenges of deep time (5.3).

5.1 Synthesis

The central thesis of this study is as follows: Practical historiography utilizes tradition as an epistemic foundation and dynamic space of experience (*Erfahrungsraum*) in order to open up future horizons of expectation (*Erwartungshorizonte*) and viable spaces of action for pressing societal and political challenges. This is achieved through a practical methodology that systematically integrates interpretive knowledge (*Verstehenswissen*) and instrumental knowledge (*Verfügungswissen*) to generate rationally grounded orientation knowledge (*Orientierungswissen*), serving acting subjects as a reliable, reflecting compass.

Tradition forms the uncircumventable basis for understanding the present and orienting future action. However, tradition must not be misconstrued as static preservation; rather, it constitutes a dynamic process of appropriation, preservation, and transformation. It operates as continuous recontextualization, wherein each generation critically examines inherited values and translates them into its own lifeworld (*Lebenswelt*). The model of the *reflecting spiral of transformation* demonstrates that each generation engages with that which has been handed down on a qualitatively altered level of cognition and praxis. Tradition thus embodies continuity within change, shielding historical identity from both museal petrification and ethno-essentialist reification. Through methodologically secured empirical evidence, practical historiography reconstructs, interprets, and explains past trajectories, thereby expanding future spaces of action.

Every scientific discipline rests upon a philosophical matrix of axiological, epistemic, ontological, and methodological premises. These presuppositions imperceptibly predetermine what qualifies as legitimate knowledge and how it is to be attained; because they deeply saturate a discipline's conceptual vocabulary, research practice rarely perceives them as contingent constraints.

In the descriptive-interpretive tradition—informed by constructivism, interpretivism, and the Perestroika movement—the humanities and interpretive social sciences function as the leading

methodological guides. Rather than searching for universal causal laws, this tradition aims at the hermeneutic understanding of intentional actions, intersubjective contexts of meaning, and symbolic orders. Employing qualitative text, document, and discourse analysis as well as thick description, this current champions research that is object-adequate, context-sensitive, and problem-driven rather than method-driven.

The currents rooted in the explanatory-prognostic tradition—naturalism, positivism, and scientism—align themselves with the model of the natural sciences, pursuing a causal and empirical reductionism. Phenomena are no longer examined teleologically as to *why* (to what end) they occur, but *how* and under what conditions they unfold. The focus lies on explaining macro-level regularities via quantitative, logical-mathematical, and statistical procedures, alongside reconstructing micro-level causal mechanisms through structured qualitative tools such as process tracing. This marks a decisive methodological dividing line: case-based qualitative procedures designed to identify causal processes differ fundamentally from hermeneutic-interpretive qualitative methods.

This multi-layered *Methodenstreit* (*Science Wars*) extends across ten fundamental levels: an axiological level (governing non-epistemic research values), an epistemic level (defining norms, validity conditions, and standards of justification), an ontological level (specifying the nature and structure of the domain of inquiry), and seven methodological levels (encompassing concepts, propositions, theories, logic, argumentation, methods, and overarching methodological approaches).

Analogous to political science, historiography consequently unfolds into three complementary pillars: descriptive-interpretive, explanatory-prognostic, and genuinely practical historiography. While descriptive-interpretive inquiry yields interpretive knowledge (meaning, significance, contexts) and the explanatory-prognostic branch provides instrumental knowledge (causalities, mechanisms, regularities), practical historiography is charged with the rational justification of orientation knowledge (legitimacy, maxims of action, future-oriented prescriptions, pragmatic and technical rules).

Instead of yet another one-sided methodological turn, I advocate for an integrative approach that realizes the complementarity of these three philosophical traditions. The imperative for this third pillar arises from the structural limitations of established applied concepts—such as Normative Rational Choice Theory, Applied Phronesis, and Applied History. These approaches remain incapable of methodologically generating, justifying, and scientifically legitimizing practical recommendations for action within normative value discourses and pragmatic goal discourses.

From this deficit emerges the necessity of a genuinely practical political science and a practical historiography in which practical knowledge—normative, pragmatic, and technical—can be autonomously and rationally justified. The decisive distinction between such a practical science and merely applied approaches lies not primarily in divergent research objects, but in the fact that it elevates the transition from empirical cognition to justified practical judgment into the subject of an autonomous methodology.

The specific contribution of this study crystallizes through its critique of these three dominant models: Applied History, whose heuristics remain theoretically and methodologically underdeveloped; Normative Rational Choice Theory, whose quantifying formalism relies on ahistorical behavioral axioms; and Applied Phronesis, which reduces practical wisdom (*phronesis*) to managerial decision-making strategies. Crucially, all three models lack genuine norm-justifying validity: running afoul of the is-ought problem and succumbing to the naturalistic fallacy, they remain trapped within the instrumental means discourse. Practical historiography, by contrast, bridges value, goal, and means discourses through the corrective of practical reason, thereby methodologically securing the transition from *is* to *ought*.

The hierarchical ordering of value, goal, and means discourses establishes an asymmetry in the renewability of historical experience. Normative values (virtue ethics and legal ethics) and

pragmatic goals (individual and collective teleology) remain permanently renewable, functioning like a compass. The instrumental level, however, bifurcates: purely technical single-case rules become obsolete like an outdated navigation system, whereas sociotechnological arrangements—such as law, administration, and diplomacy—partake in the renewability of higher levels due to their immanent normative and teleological substance. Historical transferability is thus determined not by discourse level as a formal category, but by the degree to which an institutional practice is permeated by values and rational purposes.

The concept of the *reflecting spiral of identity transformation* profiles practical historiography as a genuine science of orientation: it exhausts itself neither in past-oriented interpretive knowledge nor in technological instrumental knowledge, but generates action-guiding orientation knowledge for a present marked by fragmentation, superposition, and uncertainty. The reflecting spiral of identity transformation offers a model for how acting subjects and institutions preserve historical agency: by neither discarding the inherited heritage nor dogmatically cementing it, but by reflecting upon and transforming it into a living resource for future action.

5.2 Outlook: Practical Historiography Using the Example of the Transylvanian Saxons

The multimedia and multilingual project, "Transylvanian Saxons - A Portrait. Generative Artificial Intelligence (GenAI) connects Transylvanian Saxon Cultural Heritage: Opportunities and threats for its appropriation, preservation and further development" (siebenbuergersachsen.de/portraet/index-en.htm), translates the concept of a practical historiography into concrete application. It illustrates the complementary interplay of three traditions in the philosophy of science: in the first two parts, qualitative procedures of hermeneutics for the methodically controlled, empirical exploration of history and cultural heritage within the framework of descriptive-interpretive and explanatory-prognostic methodology. Only in the third part does the practical tradition unfold its orienting function: it assesses the current position of the community and its future prospects in the age of generative AI—thus gaining a practical compass for shaping the future that empirical data, algorithms, or ossified traditions cannot provide on their own.

In the first part, *"Transylvanian Saxons – Origins and Growth of a Traditional Community",* the settlement of the Transylvanian Saxons and the Transylvanian Landler in Transylvania is expounded. A historical overview spans the arc from internal colonization in the 12th century to the major wave of emigration in the late 20th century. The section examines the genesis and cohesion of the community through its central institutional pillars or spiritual curtain walls—the *Diploma Andreanum* and the Saxon National University (*Nationsuniversität* / *Universitas Saxonum*), customs and neighborhood associations (*Nachbarschaften*), foundations and associations, faith and church, as well as language and the school system—highlighting the multifaceted dimensions of Saxon resilience and self-assertion. This is followed by a causal analysis of the motives and causes that led to the dissolution and exodus of the community, followed by an account of their integration in the main new areas of settlement: Germany, Austria, Canada, and the United States.

The second part, *"The Material and Immaterial Cultural Heritage of the Transylvanian Saxons",* is dedicated to an inventory of the cultural heritage. It systematically categorizes this into tangible monuments—in particular fortified churches and church fortresses, urban ensembles, and archival holdings—and intangible traditions, the "invisible baggage" of values, legal traditions, songs, literature, dialect, and other identity patterns. In this way, the full diversity of the Transylvanian Saxon cultural heritage is made visible.

The third part, *"Assessing the Current Situation and Future Perspectives",* analyzes the situation of the globally networked community of Transylvanian Saxons at the beginning of the 21st century. Proceeding from contemporary organizational structures in worldwide associations, federations, foundations, and *Heimatortsgemeinschaften*, viable models for the future are developed. Here, the opportunities and risks for the appropriation, preservation, and

further development of cultural heritage in the age of generative AI are methodically reflected upon in order to strengthen the power of judgment of future generations and carry the historical heritage vibrantly into the future.

5.3 Outlook: The Anthropocene as a Challenge to Historiography

As Dipesh Chakrabarty (2018) has shown, the Anthropocene calls into question the humanist foundations of historiography. Anthropogenic global warming compels us to think together the deep timescales of Earth history with the brief cycles of human development. From this emerges a negative universalism: human beings form a community of fate not through shared meaning or normative solidarity, but through collective vulnerability to a collapsing planetary system. Historiography must therefore broaden its strictly anthropocentric perspective and comprehend geophysical conditions as active causal factors in history—no longer as mere external framework conditions. When the historical subject loses its autonomy and the future turns from an open terrain of human agency into a domain of existential threat, traditional philosophy of history loses its grounding. The discipline must evolve from a purely human-centered doctrine of meaning into a planetarily expanded, multi-temporal theory of becoming.

It is precisely here that the scope and necessity of the practical historiography developed in this study become evident. Neither a purely natural-scientific approach—which produces Earth system data yet falls methodologically silent before normative questions—nor a purely text-based cultural hermeneutics suffices to navigate planetary crises in an action-guiding manner. Only a practical science of orientation that methodically separates descriptive reconstruction, forecasting, and practical reason while avoiding the naturalistic fallacy, and the is-ought problem provides the requisite toolkit: rationally grounded spaces of action can thus be derived from biophysical imperatives. Neither raw data nor historical analogies alone guide action; rather, only the philosophically disciplined mediation of facts, values, and means enables viable normative orientation.

On this foundation, the model of tradition as a reflecting spiral of identity transformation proves its conceptual efficacy. Tradition was hitherto regarded primarily as a purely human category of transmission and meaning-formation. In the Anthropocene, this understanding reaches a definitive limit: cultural practices set in motion Earth system processes—from ocean acidification to radioactive isotopes radiating across millennia—that elude human control and establish inescapable material realities. While tradition remains human action, the conditions by which it must orient itself are no longer entirely in human hands.

How this spiral of transformation operates is already evident in the project *"Transylvanian Saxons – A Portrait,"* which examines the deployment of generative AI for preserving Transylvanian Saxon cultural heritage: there, the anthropological dimension of identity transformation occupies the center. The Anthropocene now expands this perspective into the planetary realm: collective identity is constituted not through museological standstill, but through the continuous, philosophically reflected transformation of human self-understanding in the face of irreversible biophysical realities. Thus, it can be maintained: both the methodology of practical historiography developed here and the theorem of tradition as a reflecting spiral of identity transformation are fundamentally suited to methodically addressing the challenges of the Anthropocene.

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7 Figure: Three philosophical (descriptive-interpretative, explanatory-prognostic, and practical) traditions across ten levels

Scientific methodologies and **types of science**	**I. Descriptive-interpretative tradition**: descriptive methodology (sciences)	**II. Explanative-prognostic tradition**: empirical-explanative and empirical-prognostic methodology (sciences)	**III. Practical tradition**: practical (normative, pragmatic and technical) methodology (sciences)
1. Axiological level Tasks and goals of scientific research, non-epistemic values, relationship between politics and (political) science.	**Descriptions**: description of (**visible**) **phenomena**, interpretation of **symbols** (text, image, audio and video), mainly by means of language	**Explanations** and **predictions**: world recognition, world explanation of **invisible causalities** using especially logic and mathematics	**Evaluations and regulations**: world change, practical (normative, pragmatic and technical) standards (norms) and regulations using logic, language and mathematics
2. Epistemical level Epistemic values, forms of knowledge, ideals and properties of scientific research.	Descriptive-interpretative knowledge	Empirical-explanatory and empirical-predictive knowledge	Practical (normative, pragmatic and technical) knowledge
	Ideal of *truth* Predicates: true or false		Ideal of *rightness* (ethics): right/wrong Ideal of *justice* (politics): just/unjust Ideal of *phronesis* (Klugheit): wise/unwise Ideal of *efficacy*: effective/ineffective
3. Ontological level	Phenomena and Symbols	Causalities	Political Institutions
4. Concept level	Qualitative, interpretative or classificatory concepts	Quantitative, mathematical or metric concepts	Practical (normative, pragmatic and technical) concepts
5. Sentence level	Descriptive-interpretative propositions	Explanatory and predictive propositions	Norms, i.e. justice standards, pragmatic and technical rules
6. Theory level	Empirical theories consist of systems of propositions, including propositions about standards and rules.		Practical theories consist of regulations, i.e. systems of empirical statements and practical standards and regulations.
7. Logic level Formal inference and inference rules	**Truth-apt logic**: *Propositional logic*: It is the case, that [...] *Predicate* logic: F "is a human". Modal logic, e.g. *alethic modal* logic:		Unlike classical logic, these are **not truth-apt** (*Jørgensen's dilemma*). Logic of *Norms* (*act-ought*, Tun-Sollen, not *is-ought*, Sein-Sollen), logic of

<table>
<tr><td>related to scientific concepts and scientific sentences</td><td colspan="2">It is necessary/impossible/possible/contingent that [...]
Epistemic (doxastic) logic:
It is believed/considered impossible/conceivable that [...]
Tense logic: It was/will be/always will be/always was the case that [...]
Deontic logic (*is-ought*, Sein-Sollen):
It ought to be/it is forbidden/permitted/indifferent that [...]</td><td>*imperatives*, *interrogative* logic, legal *logic*, logic of *implementation* (Durchführungslogik).
Efficacy and rightness, Prima-facie property of ethical norms and political maxims of action.
Conflicts of justice standards and mediation of justice standards.</td></tr>
<tr><td rowspan="4">8. Argumentation level

Argumentation inside scientific theories or logical structure of scientific arguments (logic of research)</td><td colspan="2">Analytical, dialectical, empirical, evolutionary or hermeneutic
means of argumentation</td><td>Practical (normative, pragmatic and technical) argumentation</td></tr>
<tr><td colspan="2">Explaining-understanding-debate thought of as complementary</td><td rowspan="3">Practical, substantive argumentation, practical syllogism and
pragmatic syllogism</td></tr>
<tr><td>Understanding</td><td>Explanation</td></tr>
<tr><td>Abductive, inductive, substantial, warrant-using, tentative, formally invalid, epagogical argumentation:
Hegelian dialectics, hermeneutic circle</td><td>Deductive, analytical, warrant-establishing, conclusive, formally valid argumentation:
deductive-nomological model (or HO schema), evolutionary explanatory model</td></tr>
<tr><td colspan="3">Aristotelian topics (dialectics)</td></tr>
<tr><td rowspan="3">9. Methods level

with reference to political science.
Scientific investigation of facts and judgements, generation and evaluation of facts</td><td>Descriptive methods</td><td>Empirical-explanatory and empirical-predictive methods</td><td>Practical (normative, pragmatic and technical) methods</td></tr>
<tr><td>Qualitative methods:
content analysis, document analysis, participatory observation</td><td>Quantitative methods:
quantitative data collection, correlation and regression analyses</td><td rowspan="2">Arguing, discourse, deliberation, mediation, synopsis, categorical imperative, evaluation, implementation planning, technology assessment (TA)</td></tr>
<tr><td colspan="2">Triangulation: The application quantitative and qualitative methods on a phenomenon.</td></tr>
<tr><td rowspan="3">10. Methodical approaches level

with reference to political science
Generation and evaluation of theories</td><td colspan="3">Approaches with empirical and practical elements</td></tr>
<tr><td colspan="3">Socio-technological, synoptic, practical-normative, critical-dialectical, empirical-normative, argumentative and pragmatic approach, rational choice approach, advocacy coalition approach, governance approaches, actor-centered approaches (decision arenas, networks, exchange and negotiation systems, regimes)</td></tr>
<tr><td colspan="2">Empirical approaches</td><td>Practical approaches</td></tr>
</table>

	Historical, institutional and structuralist approach, narratives, frames, discourses	Behavioural, functional and quantitative approach	Participatory policy approach, decisionist, synoptic, normative, pragmatic and technical approach

Source: Lauer 2025: 410-411.

About the Author

Johann Lauer is a philosopher and political scientist. He studied and earned his doctorate at Heidelberg University in philosophy (*Magister Artium*) and political science (*Doctor Rerum Politicarum*). A primary focus of his work lies in the philosophy of science; further information regarding his academic profile, research priorities, and publications can be found at: lauer.biz.