



The Methodological Concept of Adequacy from a Historical Perspective

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Abstract

The aim of this essay is to reconstruct the history of the methodological concept of adequacy, its origin, its development and shifts in conception. The concept of “adequate causation” was introduced by physiologist Johannes von Kries based on his theory of probability. He proclaimed that the contrary of an “accidental” causation is not a “necessary” causation but an “adequate” causation, which means that a result is caused with a certain, significant (objective) probability. This concept was eagerly discussed by philosophers of law and had a profound influence on Max Weber who applied it to historical and sociological analysis. Weber made “causal adequacy” a methodological postulate of sociology and coupled it with “meaning adequacy”. Alfred Schutz, who intended to provide Weber’s sociology with a philosophical foundation, rejected causal adequacy as inadequate for the social sciences and merged the two postulates into one. His definitions of the postulate of adequacy are, however, somewhat inconsistent and seem to reduce it sometimes to mere understandability, dropping the requirement of coherence of experience or, in modern terms, empirical validation. This inconsistency and its implications are discussed in some depth. Based on Schutz, Harold Garfinkel developed ethnomethodology and interpreted the postulate of adequacy in this new context. We discuss the weak and the strong version of the “unique adequacy criterion” and some of their implications. The conclusion recapitulates the crucial insights of this journey.

Keywords Causal adequacy · Meaning adequacy · Johannes von Kries · Max Weber · Alfred Schutz · Harold Garfinkel

This special issue on *adequacy* demonstrates how relevant the methodological postulate of adequacy and how lively the debate about it actually is. The aim of this paper

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is to reconstruct its origin, its development and shifts in conception and to discuss the relevant methodological implications involved. The concept of “adequate causation” was introduced by physiologist Johannes von Kries based on his theory of probability. It was adopted by sociologist Max Weber as “causal adequacy” for his historical as well as sociological analysis and was coupled with the postulate of “meaning adequacy,” a creation of Weber. Alfred Schutz, after a careful phenomenological lifeworld analysis, declared *adequacy* to be the central methodological postulate of the social sciences. However, by adequacy he only means adequacy of meaning: second-order constructs must be consistent with first-order constructs. In contrast to Weber, Schutz claims that causality belongs to the mechanistic world of physics and has no proper place in the social sciences. In fact, he argues, causal adequacy is only a special case of meaning adequacy.

Schutz’s postulate of adequacy remains vague regarding how it should be assessed in a specific case. Therefore, there exist various interpretations according to the respective pre-theoretical and theoretical premises. The postulate has different implications if it is interpreted within the framework of the phenomenological lifeworld analysis or if it is detached from it. And it has different implications when it is applied, for example, to the construction of economic models, as Schütz often does, or when it is discussed in the context of empirical social research projects. These issues will be scrutinized before we turn to Harold Garfinkel’s radicalized conception of adequacy in the context of ethnomethodological studies.

The Concept of “Adequate Causation” in the Probability Calculus of Johannes von Kries

The concept of “adequate causation” was invented by von Kries (1888), who was a professor of physiology at the university of Freiburg in southwest Germany since 1883 (where Weber later became his colleague). His studies of sensory perception (sound, color vision) were groundbreaking, and some of his insights are still considered valid today. Kries conducted psychophysical experiments as a natural scientist who adhered to a mechanistic and deterministic world view. His difficulties with measuring mental states during his psychophysical experiments prompted him to develop a theory of *probability calculus* (1886) that is still worth reading. This work is less concerned with mathematical formulae and more with the truth conditions of probabilistic statements.

As the translator to the English edition, Niall (2023) states, this endeavor stands in stark contrast to the scientific practice of recent decades. Today’s probability theory is highly mathematized, with teaching focused heavily on explaining statistical procedures and little on the underlying fundamentals of probabilities. The notion of probability has been consistently misapplied to empirical observations in psychology, medicine, and other social sciences by interpreting them as results of random games, which they are not. Recently, a renewed interest in the work of Kries has emerged (Heidelberger, 2001, 2015; Rosenthal & Seck, 2016), and many have come “to gradually recognize the philosophical riches to be found in von Kries’s neglected masterpiece” (Zabell, 2016: 148).

Probability, Objective Possibility and Range (*Spielraum*)

Like Kant (1996), Kries understands the foundations of science as products of reason. Neither causalities nor probabilities can be derived from empirical frequencies alone. Kries therefore distances himself from frequentist approaches and attempts to establish the principles of probability theory through logical reasoning. A crucial step was to distinguish between subjective and objective probability. In the prevailing psychologism of his time, the term “probability” was usually associated with subjective expectations of an individual in situations of uncertainty. A probability calculus is, however, only possible with objective probabilities. To avoid confusion in terminology, Kries prefers the term “objective possibility”. If there are objective possibilities that are compatible with a general law, they can be calculated, without taking any subjective expectations into account.

Kries (1886) agrees with Henri Simon Laplace that an explanation or prognosis of an event consists of two parts, a nomological part and an ontological part. *Nomological propositions* describe general laws that apply to a whole category of things and to an indefinitely large number of individual specimens. *Ontological propositions* concern what is “purely factual” in a single case. If humans knew all the nomological laws and all ontological conditions, there would be no uncertainty. This will, however, never be the case. Even if all the laws were known, we would never know all the conditions which cause an effect, neither beforehand nor afterwards.

Kries argues that *objective possibilities* can be scientifically significant if an event is compatible with a certain natural law, regardless of its special ontological qualifications. He introduces the concept of “*Spielraum*” (literally “play space,” translated in English as “range,” sometimes as “scope”) and asserts that a hypothesis has an objective, numerically determinate probability only if its range of objective possibilities is indifferent, original and comparable (*indifferent, ursprünglich und vergleichbar*) (1886: 36 f.). This applies to ideal games of chance, such as throwing a die. While the ontological determinants of how the die is thrown in an individual case co-determine the concrete result, there are exactly six objective possibilities for this result. And if the die has six equal sides and is correctly centered, the probability of throwing any of its six numbers is $1/6$. This depends on its objective, physical properties and has nothing to do with subjective expectations or psychology. And the law in this case is that a large number of dice rolls leads to an approximately equal distribution of the six numbers, irrespective of the diverse ontological determinants of how the dice is thrown.

Kries is skeptical about the application of these insights to empirical phenomena because the objective possibilities are rarely as stringent, and the conditions often vary considerably. In many cases such objective probabilities cannot be expressed in numbers and are therefore not computable. In large datasets, however, empirical phenomena often resemble games of chance, which indicates a certain constancy of the relevant general conditions involved (Kries, 1889). Kries then sees a certain possibility of estimating the probability of an empirical event, and he recommends the method of dispersion to test the independence of results (Kries, 1886: 144–153; Heidelberger, 2001: 42). For example, in Kries’s time, many people died of pneumo-

nia independently of their age, sex, or pre-existing health conditions, which points to pneumonia as the main cause of death.

Based on these fundamental reflections on objective possibilities, Kries (1888: 200) introduces the concept of “adequate causation”. It takes a middle position between “necessary causation” und “accidental causation”. Adequate causation means that a result is caused with a certain, significant (objective) probability. This requires a nomological proposition about a general causal relationship. Based on his deterministic worldview, Kries is firmly convinced that “every event that actually occurs is necessarily the result of the totality of pre-existing conditions” (1988: 180). His crucial question is now whether, among these diverse conditions, one stands out as more important for the causal relationship than the others. Kries presents an example of a series of events that are causally linked: A coachman falls asleep, veers off course, and subsequently, the passenger is struck by lightning. The coachman might now be confronted with the accusation: If he had not dozed off, his passenger would not have been struck. Indeed, many people in everyday life feel guilty because they have contributed to such an unfortunate series of causal events in one way or another. However, Kries suggests scrutinizing if this causation was adequate or merely accidental. For this purpose, he proposes to distinguish between the causation of *concrete, individual events* and the causation of *event classes*. Only if there exists a *general causal relationship* between types of actions and classes of subsequent events can one speak of “adequate causation”. There is no evidence that a coachman’s sleep increases the possibility of being killed by lightning. Hence, this is only a case of “random causation,” or “accidental causation,” happening purely by chance. But if the coachman had fallen asleep and the carriage overturned, injuring or killing the passenger, this would likely be deemed “adequate causation” since the likelihood of such an accident decreases with an alert coachman.

Adequate Causation in Legal Matters

Obviously, these considerations have direct implications for assessing guilt and liabilities in law as well as in courts. Kries (1888: 287–428) tackles this connection in the second part of his text where he deals with the concept of danger as the possibility or probability of a damaging event. He explains that criminal law often presents theoretical and practical uncertainties and fluctuations that could be remedied by logical analyses. Much would be gained if it were explained as fully as possible in which relationships the legal conceptualization must draw an arbitrary line within a constant variability such as between adequate and accidental causation. At the invitation of Franz von Liszt, the most important innovator of criminal law thinking in the 19th -century Germany, Kries (1889) wrote a 10-page essay outlining his main arguments, which was published in the German Journal for Penal Law. Kries’s contribution sparked significant debates among lawyers and legal scholars.

Law philosopher Weyma Lübke (1993) explains why Kries’s contribution was so important for jurisprudence and jurisdiction. At the time, the philosophical concept of causality in the 19th century was based on physics and the idea that strictly deterministic, causal relations were always deemed “necessary”. This strict determinism, however, was ill-suited to legal issues of causality. The deeper reason lies in the fact

that Newtonian mechanics allows the analytical breakdown of multi-causal constellations into the forces of the individual factors to explain their interplay, whereas multi-causal *social* constellations resist such reduction both analytically and phenomenologically. In the second half of the 19th century, jurisprudence began to adhere to the theory of equivalence, which considered all conditions as equally important. With his *concept of range* (*Spielraum*), Kries provided the logical foundation for the idea of a gradually varying relevance of the necessary conditions of an event. Drawing on specific rulings of the *Reichsgericht* (Supreme Court), he showed how judges repeatedly considered “*favorable conditions*” by implicitly applying a concept of “adequate causation”. Kries coined the relevant term, but *his main merit* is his proposal to replace the traditional concept of *deterministic causality*, which postulated a “necessary” connection between condition A and outcome B, with a *probabilistic concept of causality*. Individual cases must be considered in the light of a wider knowledge about causal relationships.

And yet, a certain weakness in Kries’s argument is his acknowledgement that drawing a sharp line between adequate and random or accidental causation is impossible. Kries repeatedly emphasizes this fact himself (e.g., 1888: 215; 1889: 533) and notes that the distinction requires an *arbitrary* demarcation. While Kries (1889) believes that the courts would succeed in developing the adequacy criterion, the famous German legal philosopher Gustav Radbruch criticizes the theory of adequate causation, arguing that it does not provide clear guidance as to when something is to be regarded as a “favoring circumstance” or a “promoting condition” (1902: 337). He concludes: “This leaves the term ‘adequate causation’ for criminal law [...] appear inapplicable” (1902: 383). Lübke (1993) raises the objection that we are always confronted with varying conditions. For example, what is a “dangerous weapon”? A pencil, a pin, a tomato knife, a butcher’s knife – at what point can an object be called “dangerous”? We are always forced to differentiate between different degrees and gradations, even if the distinction between “dangerous” and “harmless” is arbitrary.

Kries’s reflections apply to many areas, although he has focused above all on penal law. In a recent assessment, Treiber (2019) states that within penal law, Kries’s theory of adequacy has been superseded by newer theories (e.g., the theory of guilt and the doctrine of objective attribution). The situation is different in *liability law*. Max Weber (1949: 169, fn. 36; 2018: 454, fn. 32) notes that Radbruch accepted Kries’s reasoning for all liability cases where only the „objective” causality is assessed. Indeed, the concepts of adequacy and adequate causation are still invoked in theoretical jurisprudence and liability cases in courtroom jurisdiction. However, when examining such cases empirically, Vito Roberto and Kristoffel Grechenig (2009) found that the term “adequacy” is used in both areas in quite different ways. They recommend using different designations for different types of attributions to avoid confusion.

Whether certain conditions have a higher causal relevance for a given result than others, that is, a higher probability of causing this result, certainly remains an exciting question in both jurisdiction and jurisprudence, as well as in everyday life. Kries created the concept of adequate causation to logically clarify this issue. And Max Weber declared it to be a central methodological criterion of sociological explanations.

The Concepts of Causal Adequacy and Meaning Adequacy in the Work of Max Weber

Causal Adequacy in Historical Analysis

Max Weber followed the legal discussion on adequate causation with great attention and recognized its relevance for historiography and sociology. His methodological reflections in his essays “The ‘objectivity’ of knowledge in social science and social policy” (Weber, 1949 [1904]: 50–112) and “Critical studies in the logic of the cultural sciences” (Weber, 1949 [1904]: 113–188), especially in section II, “Objective possibility and adequate causation in the historical causal consideration” (1949 [1905]: 164–188) refer extensively to Kries’s works, Weber even writes that he “plundered” them (Weber, 1949 [1905]: 186, fn. 42). Gerhard Wagner (2019), the editor of the new German edition of Max Weber’s methodological writings (2019), reveals in his careful editorial notes that many implicit references to Kries’s reflections are present throughout the text.

Weber’s creative achievement was to develop a methodology for historical causal research based on Kries. He discerns the same logical structure in the legal question of attribution as in the historical question of causality. Firstly, both investigate the causal effects of human actions, and both search for concrete causes of concrete effects:

For, just like history, the problems of practical social relationships of men and especially of the legal system, are ‘anthropocentrically’ oriented, i.e., they enquire into the causal significance of *human* ‘actions’. And just as in the question of the causal determinateness of a concrete injurious action which is eventually to be punished under criminal law or for which indemnity must be made under civil law, the historian’s problem of causality also is oriented towards the correlation of concrete effects with concrete causes, and not to the establishment of abstract ‘uniformities’ (*Gesetzlichkeiten*). (Weber, 1949: 168)

In contrast to jurisprudence and jurisdiction, historiography does neither deal with legal norms nor with the attribution of subjective guilt to an individual. However, both disciplines are, secondly, confronted with an infinity of determinants influencing the concrete course of actions and events from which they must make a selection. Each applies a *principle of selection to differentiate between essential and non-essential factors*, thereby determining which aspects are relevant or irrelevant when considering causes. In jurisprudence, the criterion for determining relevance is whether something can be subsumed under a certain legal norm, while in historical science, it is determined by the type of historical research interest involved.

Thirdly, constructing a causal relationship requires a series of “logical operations,” in particular, a “series of abstractions,” which superimpose categories on the actual course of actions and events (Weber, 1949: 171; 2018: 457 ff.). In Weber’s own words:

... the formulation of propositions about historical causal connections not only makes use of both types of abstraction, namely, isolation and generalization, it shows also that the simplest historical judgement concerning the historical ‘significance’ of a ‘concrete fact’ is far removed from being a simple registration of something ‘found’ in an already finished form. The simplest historical judgment represents not only a categorically formed intellectual construct, but it also does not acquire a valid content until we bring to the ‘given’ reality the whole body of our ‘nomological’ empirical knowledge (Weber, 1949: 174 f.; 2018: 466 f.).

A related logical operation involves the mental variations of a concrete course of actions or events. *What would have happened if...?* If, for example, this or that condition had not existed, or in this or that form, etc. This procedure of varying given and considering other objective possibilities is widely used: in jurisprudence to determine causal attribution; in economics to make economic mechanisms visible; in historical science to determine the historical significance of events, etc. Weber’s statement is to be understood in this sense: “In order to penetrate to the real causal interrelationships, we construct unreal ones” (Weber, 1949: 185 f.; 2019: 476 – emphasis in original). Weber illustrates this approach with the question asked by the historian Eduard Meyer (1884): What was the *significance* of the Battle of Marathon in Ancient Greece? Meyer argues that the result of this battle was crucial for the cultural development of the Occident. There were two objective possibilities: If the Persians had won, Greece would have become a Persian Protectorate and a theocratic-religious culture would have prevailed. In contrast, with the Greek victory, the way was cleared for the ongoing struggle for freedom, the emergence of the Attic fleet and the preservation of Hellenic cultural independence, the values of which the West still draws on today. Weber considers these effects to be causally adequate, based on historical knowledge.

Fourthly, Weber agrees with Kries that history and society only have *probabilistic causalities*. The opposite of “random” or “accidental” is not “necessary,” but “adequate”. Referring to the Battle of Marathon, Weber writes:

it is not the case that Persian victory *must* have led to a quite different development of Hellenic and therewith of world culture – such a judgement would be quite impossible. Rather is that significance to be put as follows: that a different development of Hellenic and world culture ‘would have’ been the ‘adequate’ effect of such an event as a Persian victory (Weber, 1949: 184 f.; 2019: 475).

The same applies to all of Weber’s analyses of historical tendencies, particularly the so-called “elective affinity” between Protestant ethics and the rise of capitalism, the rationalization process in the Occident and the “disenchantment of the world”. Weber never posited any historical law as Marx did; instead, he sought to identify “adequate causations,” “favorable circumstances” that significantly contributed to a particular effect.

Fifthly, any causal analysis requires an examination of reality be grounded in our *empirical knowledge*. What does this mean? Weber draws on Kries’s distinction between nomological and ontological knowledge, stating that a historian must

gather all relevant facts for a historical situation (ontological knowledge) while also acquiring nomological knowledge, which consists of “certain known empirical rules, particularly those relating to the ways in which human beings are prone to react under given situations” (Weber, 1949: 174; 2019: 466). Both kinds of knowledge are essential for analyzing a historical situation and exploring alternative objective possibilities. It is worth noting that Weber refers to empirical rules of experience as nomological knowledge, whereas in Kries’s work, nomological knowledge pertains exclusively to general scientific laws. Heidelberger (2015) counters that, based on Kries’s distinction, the social sciences address solely the ontological characteristics of society rather than the nomological: “The proper way of explanation is by referring to dimensions of ranges (i.e., to objective possibilities or general tendencies) rather than by subsuming events under general laws” (Heidelberger, 2015: 39). Kries’s approach effectively mediates between the positivist “social physics” of Adolphe Quételet, who viewed statistical regularities in society as scientific laws on par with the laws of physics, on the one hand, and the historical school, which maintained that an acting human being is more than a falling stone, on the other hand. Weber embraces this mediating position.

Sixthly, the importance assigned to empirical knowledge for a causal analysis implies, though is overlooked by Kries, an *epistemic foundation*, specifically a *perceiving and knowing subject*. This entails that the adequacy of a cause in relation to a consequence is contingent upon the available knowledge of the circumstances. To comment further on the example of the overturned carriage: If a rusty, brittle bolt were detected, the case description and the attribution of adequate causes would probably change. Furthermore, a question arises regarding whose knowledge we consider. In his critique of the adequate causation theory, Radbruch (1902: 348 ff., 382 ff.) identifies three possibilities: the ontological knowledge of the agent (knowledge *ex ante*), the ontological knowledge of the judge (*ex post*) and the knowledge of the “normal,” or “ideal human being” (without a specific temporal perspective) (see Heidelberger, 2015: 235 ff.). This clearly indicates that the problem of adequacy must be framed by a sociology of knowledge (like that of Schutz, whom we consider below). In the context of the present discussion, Weber focused on two perspectives: on the historical individual, whom he regards as a responsible actor (and not merely a plaything of social forces), and on the retrospective perspective of the historian, who is guided by his or her special research question.

Causal and Meaning Adequacy in Sociology

Years later Weber provides a dense, systematic account of the basic terms of sociology where he paired causal explanation with “*Verstehen*”. He defines sociology as

a science concerning itself with the interpretive understanding of social action and thereby with a causal explanation of its course and consequences. We shall speak of ‘action’ insofar as the acting individual attaches a subjective meaning to his behavior – be it overt or covert, omission or acquiescence. Action is ‘social’ insofar as its subjective meaning takes account of the behavior of others and is thereby oriented in its course (Weber, 1978: 4).

Causal explanation presupposes an interpretation of an action's subjective meaning. Hence, *sociological propositions must not only be "causally adequate" but also "meaningfully adequate"*. This is a major methodological development, which also forms the basis for Alfred Schutz's reflection on adequacy and which deserves a more detailed presentation here.

How can an action be understood? Weber distinguishes between (a) the actual, existing meaning of an action in a concrete historical case or, in a given mass of cases, the average or approximate meaning intended by a plurality of actors, and (b) the theoretically conceived ideal type of subjective meaning attributed to the hypothetical actor or actors in a given type of action (Weber, 1978: 4). Weber acknowledges that the meaning of interpretation changes depending on whether one is dealing with a concrete empirical case or an ideal-typical homunculus (see below). Furthermore, Weber distinguishes between (a) actual understanding of the meaning of an action and (b) explanatory understanding, which includes the motive or meaningful reason behind the action currently understood (Weber, 1978: 8 ff.).

Explanatory understanding in Weber's sense, which captures the actual as well as the motivational meaning and must conform to *two methodological postulates*: not only to causal adequacy (*Kausaladäquanz*) in the sense of Kries but also to meaning-adequacy (*Sinnadäquanz*):¹

The interpretation of a coherent course of conduct is 'subjectively adequate' (or 'adequate on the level of meaning'), insofar as, according to our habitual modes of thought and feeling, its component parts taken in their mutual relation are recognized to constitute a 'typical' complex of meaning. It is more common to say 'correct'. The interpretation of a sequence of events will on the other hand be called causally adequate insofar as, according to established generalizations from experience, there is a probability that it will always actually occur in the same way. (...) Thus causal explanation depends on being able to determine that there is a probability, which in the rare ideal case can be numerically stated, but is always in some sense calculable, that a given observable event (overt or subjective) will be followed or accompanied by another event. (Weber, 1978: 11)

In other words, meaning-adequacy is achieved only when explanatory understanding is evident. But even an evidently correct interpretation remains *hypothetical* until the criterion of causal adequacy is confirmed. Conversely, a statement that is causally adequate remains only a non-comprehensible statistical probability until the criterion of meaning adequacy is fulfilled (Weber, 1978: 10, 12). In Weber's words:

Statistical uniformities constitute understandable types of action, and thus constitute sociological generalizations, only when they can be regarded as manifestations of the understandable subjective meaning of a course of social action" (Weber, 1978: 12). [Such generalizations always exhibit a] correspondence

¹ Max Weber speaks of the "subjective sense" of an action and, literally, of "sense adequacy". "*Sinn*" is usually translated into English as "meaning", which is not exactly the same.

between the theoretical interpretation of motivation and its empirical verification. (Weber, 1978: 11)

By establishing these two methodological requirements, Weber seeks to reconcile several competing schools of thought. Firstly, he builds a bridge between Quételet's social physics and the Historical School. To make sociological generalizations, we need both empirical regularities and meaningful interpretations of actions. Secondly, he links "Verstehen" with explanation. Dilthey (1988) had argued that the natural sciences and the humanities use different methods due to their different subject areas: nature is explained, culture is understood. Weber synthesizes the two methods, explaining and understanding. It was Weber who coined the term "meaning adequacy" (*Sinnadäquanz*), analogous to Kries's notion of causal adequacy. He measures the degree of meaning adequacy "according to our habitual modes of thought and feeling" and the resulting evidence (Weber, 1978: 11).

How does meaning adequacy apply to ideal types? Weber proposes working with scientifically constructed *ideal types* that are as "pure" and unambiguously defined as possible for the purpose of conceptual clarity (Weber, 1978: 6). He favors the *end- or purpose-rational* (*Zweckrationalität*) type of action for sociological consideration, as it ensures the highest degree of clarity. All irrational behavior can then be described, understood, and explained as *deviations* from this ideal type. To give an example: In the case of a stock market crash, a model depicting what would have happened if all actors had acted totally rationally would reveal the degree of irrational behavior in the concrete empirical process (Weber, 1978: 6). With this rational ideal type, Weber also mediates the methodological dispute between Carl Menger's Austrian School of Economics, which promotes general "laws" such as the marginal utility theory, and the Historical School of Economics of Gustav Schmoller, who objects that economic processes must be interpreted in their specific historical and social contexts. Weber defends Menger but insists that such economic "laws" should not be compared to natural laws; they represent ideal-typical constructions from which economic reality deviates (1978: 9).

Weber claims elsewhere that the pure ideal types formulated by sociologists "involve the highest possible degree of logical integration by virtue of their complete adequacy on the level of meaning". Yet, as he states in the next sentence, "it is probably seldom if ever that a real phenomenon can be found which corresponds exactly to one of these ideally constructed pure types" (Weber, 1978: 20). This implies that the meaning adequacy of Weber's ideal types is based on their clear comprehensibility and precision, even though real phenomena usually deviate from them. The meaning adequacy of ideal types thus differs from the meaning adequacy of statements about real, empirical phenomena. This *gap* must be further discussed in the context of Schutz's perspective.

The Methodological Postulate of Adequacy in Alfred Schutz

The “Structures of the Lifeworld” as Basis for the Methodology of the Social Sciences

Alfred Schutz studied law and economics at the University of Vienna and became a member of the renowned Mises Circle. Ludwig von Mises was the main representative of the second generation of Austrian school of economics. He maintained Menger’s position and expanded it into an aprioristic praxeology (Mises, 1949), that is, an action theory founded on analytic, universally valid concepts and laws, or so he claimed. In Schutz’s view, however, it was Max Weber who “definitively determined the starting point of any genuine theory of the social sciences” (Schütz, 2004: 75; transl. by author). Schutz believed that Weber’s analyses needed further philosophical elaboration. In particular, Weber’s central concept of subjective meaning contained numerous equivocations that required clarification.

In this context, Schutz aimed to develop a philosophical foundation for the social sciences and their methodology. Inspired by Edmund Husserl, he undertook a phenomenological analysis of the lifeworld, a project that ultimately became his life’s work. Unlike Carnap (1967) who had written a book on the *logical* structure of the world, Schutz (1967) focused on analyzing the *meaning-structure of the social world*. In Schutz’s view, the methodology of the social sciences has *two pillars*: not only the formal logic of research (Carnap, 1967; Popper, 2002) but also a constitutive analysis of the social world (Eberle & Srubar, 2010). The subject matter of the social sciences is different from that of the natural sciences, which has specific methodological implications. The social world is pre-interpreted by the actors whose actions are investigated. Hence, the social sciences must account for these actors’ interpretations, by constructing, as later formulated, second-order constructs based on actors’ first-order constructs.

A crucial question, therefore, is: How can social scientists grasp the subjective meaning that actors attach to their (social) action? Following Husserl, Schutz (1967) emphasizes that the constitution of meaning is a process in time and space, in the here and now, and that an action’s meaning is modified depending on the temporal and spatial perspective. Is it interpreted prospectively or retrospectively, by a co-present interactant or a distant observer, by the actor himself or herself or by a scientist? What are the guiding relevances for such an interpretation, what is the stock of knowledge at hand, and how are the actions typified? Schutz pursues these questions phenomenologically, that is, he is more concerned with the general features of these experiences than their empirical particularities. Through phenomenological reduction the results apply to anybody. In contrast to Husserl, however, Schutz refrains from transcendental reduction, instead conducting a mundane phenomenology that does not bracket the “natural attitude” of commonsense. He supplements Husserl’s experiential perspective with a focus on action and examines the subjective as well as the intersubjective, pragmatic dimensions of the lifeworld (Srubar, 1988). He also emphasizes the primacy of sociality, suggesting that subjective knowledge is derived from social knowledge. His final, systematic work *The Structures of the Lifeworld* (Schutz & Luckmann, 1973, 1989), completed posthumously by Luckmann, offers

a rich and detailed account of how actors experience their everyday lifeworld (both social and non-social), interact with and understand one another, work around personal and public problems together or alone, and come up with new interpretations and actions. These descriptions are of great interest not only sociologically but also methodologically.

In fact, all these analyses aim to clarify the methodology of the social sciences. This intention is evident in the structure of his book (1967) as well as in Schutz's original plan for the publication of the final 'Structures' (Schutz & Luckmann, 1989: 177–180 – a plan which was later revised by Luckmann). Drawing on Weber's terminology, Schutz explores how objective meaning contexts can be generated from subjective meaning contexts. How can the social sciences adequately account for actors' subjective meanings? In this context, Schutz considers Weber's postulates of causal and meaning adequacy.

Schutz's Rejection of Causal Adequacy

As a jurist, Schutz was likely familiar with the debate on adequate causation, and as a lawyer in the banking business, he would certainly have encountered liability issues. Yet, on principle, he firmly rejected the concept of causality from early on:

...the social sciences must reject the question of causality as inadequate with respect to the interrelations of their objects. The question of causality refers to the realm of mechanistic explanations of the world that will indeed – which can be shown a priori – never be able to solve a single social-scientific problem, be it with the help of neurosciences, theories of psychophysical parallelisms or any similar theories. (Schütz, 2007: 227; transl. by author)

And in *The Phenomenology of the Social World* Schutz (1967: 231) states:

... when we formulate judgments of causal adequacy in the social sciences, what we are really talking about is not causal necessity in the strict sense but the so-called 'causality of freedom,' which pertains to the end-means relation.

The end-means relation is at the core of the rational choice perspective of Austrian economics. By rejecting causality and emphasizing that Mises' concept of rational action is an ideal type, Schutz seeks to reconcile the approaches of Mises and Weber. However, he overlooks Kries's argument that causality in the social sciences is never necessary but rather probabilistic and adequate. He also disregards that his mentor Mises's (1949: 22) asserts that "[t]he category *means and ends* presupposes the category *cause and effect*. In a world without causality and regularity of phenomena there would be no field for human reasoning and human action".

For Schutz, transferring a mechanistic-deterministic worldview from the natural sciences to the social sciences is inadequate. However, he is open to reinterpreting Weber's concerns. Firstly, for Schutz, what Weber means by the postulate of causal adequacy is simply "the postulate of the coherence of experience" (Schutz, 1967: 232): For every typical construct, it must be possible that "according to the rules

of experience an act will be performed in a manner corresponding to the construct” (Schutz, 1967: 232). Secondly, sociology should limit its investigations to those acts that occur with a certain frequency (Schutz, 1967: 232). Both of these can be done without referring to causality. Schutz goes on to argue that “all causal adequacy which pertains to human action is based on principles of meaning-adequacy of some kind or other” (Schutz, 1967: 233). “Causal adequacy, then, ... is only a special case of meaning-adequacy” (Schutz, 1967: 234).

According to Schutz’s lifeworld analysis, actors perceive and interpret their surroundings and choose between different sequences of actions—they are never causally conditioned by certain factors. What Kries calls a “favorable condition,” which leads to a particular outcome with higher probability, can easily be reformulated within a rational choice perspective. Favorable conditions are “incentives” that actors recognize and are inclined to pursue if they wish to maximize their benefit and self-interest. This explains why a product with a substantial discount typically sells in higher numbers than at its usual price. However, each actor remains free to choose otherwise, and this, for Schutz, is the crucial point: the freedom of choice.

Economic Modelling as Scientific Role Models?

Whereas Schutz (1967) attempts to synthesize Weber’s concept of causal and meaning adequacy, seeking to retain the essential features of causal adequacy while eliminating the concept of causality, he increasingly narrows his postulate of adequacy to meaning adequacy alone. In 1943, eleven years after publishing *The Phenomenology of the Social World*, he still maintains that “(t)he postulate of adequacy requires that the typical construction be compatible with the totality of both our daily life and our scientific experience” (Schutz, 1964b: 88). And yet in the final version of the postulate of adequacy published in his most concise methodological essay, “Commonsense and scientific interpretations of human action” (Schutz, 1962a: 44), he drops this point. In this systematic chapter, he first describes commonsense knowledge of the social world by focusing on its intersubjective character, typicality, and the meaning of rationality in this context. He then outlines how adequate social-scientific constructs and models of rational actions are built and the postulates these follow. As the social sciences aim to understand human action, they produce second-order constructs that must be compatible with the first-order constructs of real actors. These models consist of a *homunculus* endowed with a specific system of knowledge and relevance, with certain because- and in-order-to motives; a *homunculus* who acts as the scientific observer has conceptualized—for instance, rationally. The model is shaped by the scientist’s own relevance system, the research question, and the scientific corpus of knowledge. It must meet the three postulates: logical consistency (absence of contradictions), subjective interpretation (tracing human action or its results back to the actor’s subjective meaning), and adequacy:

Each term in a scientific model of human action must be constructed in such a way that a human act performed within the lifeworld by an individual actor in the way indicated by the typical construct *would be* understandable for the actor himself as well as for his fellowmen in terms of commonsense interpretation of

daily life. Compliance with this postulate warrants the consistency of the constructs of the social scientist with the constructs of commonsense experience of the social reality. (Schutz, 1962a: 44 – emphasis by author; similarly Schutz, 1962b: 64; 1964a: 19)

As I have discussed in detail elsewhere (Eberle, 2010, 2014), the use of the subjunctive is suspicious. In this formulation, the postulate does not require that actors in the real world actually behave as the scientific model suggests; it only requires that the scientific construct *would be* understandable if someone were to act in this way. Adequacy in this way is reduced solely to understandability. Indeed, Fritz Machlup, Schutz's only friend from the Mises Circle who accepted both his theory of ideal type and his postulate of adequacy, writes:

The fundamental assumptions of economic theory are not subject to a requirement of independent empirical verification, but instead to a requirement of *understandability* in the sense in which man can understand the actions of fellowmen. (Machlup, 1954: 17)

With this reduction of the postulate of adequacy, Schutz legitimizes economic models that rely on unrealistic assumptions, imaginary constructions, and the *homunculus* of economic man, that is, the ideal type of a purely rational actor. Viewed from today's perspective, particularly in light of the rampant economic imperialism and the claim of rational choice theory to explain all human action as rational – even in the current sociology of religion, where this has become the predominant approach – this is highly problematic. This is especially surprising given that Schutz emphasizes in the same chapter, firstly, that human behavior in the real social world often deviates from this model (Schutz, 1962a: 45), and secondly, that “All these models are models of rational actions but not of actions performed by living human beings in situations defined by them” (1962a: 46). In fact, his lifelong work on the *structures of the lifeworld* reveals in great detail how human actors act and interact in their everyday world, which stands in stark contrast to the scientific models of rational actions. For example, in these models, rationality means something completely different than it does in everyday life. Why did Schutz not define a *more restrictive postulate of adequacy*? A more restrictive version of the postulate would have implied an open criticism of the economic models proposed by his colleagues from the Mises Circle, whom he only criticizes in his private correspondence (see Eberle, 2010). Schutz evidently avoids this because it would have contradicted his modest self-image: “Methodology is not the preceptor or the tutor of the scientist. It is always his pupil...” (Schutz, 1964b: 88). Rather than prescribe how social scientists ought to proceed, Schutz describes what he considers to be the state of the art at the time, often using examples from (Austrian) economics to illustrate his points. In his book, Schutz (1967) writes:

[Mises's] pure economics is a perfect example of an objective meaning-complex about subjective meaning-complexes, in other words, of an objective

meaning-configuration stipulating typical and invariant subjective experiences of anyone who acts within an economic framework. (Schutz, 1967: 245)

If Schutz considers pure economics to be a perfect example of his methodological postulates, does this mean that he considers economic modelling as methodological role model? This would be exaggerated. In my opinion, Schutz rather provides a *descriptive analysis of economics* (Eberle, 1988). In the above quote, however, he restricts adequacy to “anyone who acts within an economic framework”. In Schutz’s view, the subject matter of economics is defined by the principle of marginal utility. Models of economic actions must therefore not be applied to non-economic types of action. This is a clear stance against economic imperialism of all sorts, including the general praxeology of Mises (1949).

Furthermore, Schutz (1962a) stresses the difference between scientific rationality and commonsense rationality. The concept of rationality can obtain its full significance only on the level of a scientific model, whereas commonsense rationality in everyday life has many degrees and human action is only partially rational.² Seen against this background, Schutz describes a *constitutive gap between scientific models of actions and commonsense actions in everyday life*. This gap is particularly large in rational choice theories, as the actual decision-making processes in everyday life are very different from those insinuated in the model.

Adequacy in Empirical, Phenomenological Sociology

Of course, Schutz’s methodological discussion can also be interpreted as a *proposal to reduce the gap between scientific model and empirical reality* as much as possible. Although Schutz consistently described his phenomenological lifeworld analyses as “philosophical” – and was therefore often misunderstood by sociologists³ – he pointed the way to developing a more adequate sociology that deals with people’s actual thoughts and actions in everyday life. In his studies on the stranger, the home-comer and the well-informed citizen he demonstrates how well his categories from phenomenological lifeworld analysis can be used to describe everyday experiences of these actors (Schutz, 1964c,d,e). And later, Schutz’s work contributed greatly to providing a theoretical and methodological basis for the development of interpretative, qualitative methods of social research.

Schutz’s essay, “The Stranger” (1964c), is a paradigmatic example of how he envisions a sociological study that describes how someone experiences the situation of being a stranger in everyday life. He cites many sociological studies and criticizes them for being written from an exclusively “objective perspective”. Against this background, he sets out to investigate the stranger’s “subjective perspective,” and he elaborates this quite convincingly. Interestingly enough, he emphasizes that such a sociology from the subjective perspective of the actor was suggested by Max Weber.

² Schutz anticipates here Herbert Simon’s (1955) “bounded rationality,” which has been much more widely disseminated among economists (Simon won the Nobel Memorial Prize in Economic Sciences 1978).

³ As the correspondence between Schutz and Talcott Parsons (1978) reveals, Parsons did not understand why Schutz insisted so much on a philosophical foundation for his theory of action.

He claims, in other words, to follow Weber's advice to interpret (*verstehen*) the subjective sense (meaning) of social actions. It is important to note here that compared to Weber, Schutz considerably radicalizes the concept of "subjective meaning". In his view, our daily experiences continually change us, and due to the biographically determined stock of knowledge at hand, the subjective perspectives of two and more persons will always differ. This radical notion of "subjective experience," "subjective perspective" and "subjective meaning" certainly diverges from Weber's Neo-Kantian framework, but it is what Schutz advocates as sociology conducted from a subjective perspective. Because it differs considerably from other sociological approaches in the US who invoked Weber at the time, Schutz calls his contribution an "essay in social psychology". In the Collected Papers of Schutz (1964c) this essay is described as an "applied phenomenology". Hence, this study in applied phenomenology implements, in Schutz's view, the sociological approach of Max Weber (Eberle, 2021). In other words, the "Structures of the Lifeworld" constitute a social theory or, in Luckmann's wording (1983), a protosociology that puts actors' subjective experiences, their commonsense knowledge and their relevances centerstage.⁴

At his time, Schutz could not have foreseen that his phenomenological lifeworld analyses would lay the groundwork for a new type of research, namely *empirical, interpretive, qualitative social research*. The empirical research he was acquainted with consisted in surveys such as Gallup that he was very critical of (1964e). Since the 1960s, a variety of interpretive approaches and a wide range of qualitative methods have emerged and disseminated, many of which strive to explore social experiences and actions in their concrete lifeworld contexts as closely as possible. In light of this broad empirical, qualitative research, I have proposed a radicalized version of Schutz's postulate of adequacy (Eberle, 1999, 2010):

The postulate of adequacy means that the constructs of the social scientist describe and explain a concrete course of action empirically appropriately in the actor's perspective. (2010: 131)

(S)cientific constructions can only be accepted as adequate, *if they are on the one hand designed according to the processes of meaning constitution in daily life and if on the other hand they grasp the actual orientation of actors in concrete situations empirically correctly*. In this form, the postulate of adequacy would be suited to function as a *quality criterion of qualitative social research* and to constructively replace the usual suspects like objectivity, validity or reliability which originated in the context of quantitative research. (2010: 133)

My reasoning was as follows: Firstly, Schütz's enormous effort to work out the structures of the lifeworld inevitably implies that the postulate of meaning adequacy must be interpreted in their context. A sociology that attempts to describe the actor's subjective perspective requires an adequate terminology. Secondly, while Schütz rejects

⁴ Schutz considered commonsense knowledge a key concept of sociology and called for a sociology of knowledge. Based on Schutz's work, Berger and Luckmann (1966) conceived a new sociology of knowledge and initiated the constructionist movement.

the concept of causality for the social sciences he maintains – as we have noted above – “the postulate of the coherence of experience” (Schutz, 1967: 232): For every typical construct, it must be possible that “according to the rules of experience an act will be performed in a manner corresponding to the construct” (Schutz, 1967: 232). In the era of interpretive, qualitative social research the “rules of experience” are replaced by concrete, empirical evidence.

Many scholars who relied only on Schutz’s last version of the postulate of meaning adequacy as quoted above (1962a: 44), overlooked that this postulate also requires a coherence with experience. Not only did Schutz clearly state this in his early book (1967), he maintained it in 1943 (1964b: 88) and also later on. As I found in the editorial notes of the *Alfred Schütz Werkausgabe (ASW) vol. IV* on the methodology of the social sciences, his last formulation of the postulate of adequacy in the *original, unpublished manuscript* was complemented by an additional sentence:

The postulate of adequacy unites the constructs of thought objects of social science with the commonsense constructs of thought objects of everyday experience and makes it possible to apply the *criterion of verifiability*. (Schutz, 2010: 398, ed.note 244; translation and emphasis by author)

The postulate of verification as discussed in the philosophy of science usually relates to the realm of natural sciences. As the social world is preinterpreted by the actors living in it, verification in the social sciences has a different character. It requires a consistency between scientific constructs and the commonsense constructs of everyday life. The postulate of adequacy allows for and implies verifiability.

Why did Schutz decide to omit this criterion of verifiability from the published version of the chapter? I guess this was a concession to his friends from the Mises-Circle and the Mont Pelerin Society (founded by Friedrich A. von Hayek, Ludwig von Mises and Karl Popper). Omitting this sentence reduced the postulate of adequacy to mere understandability, as advocated by his friend Fritz Machlup (see his quotation above). Rational choice models are always understandable in commonsense terms, if actors in real life *would* act that way. But the pivotal question is whether they actually do act that way. If the postulate of adequacy requires that real life experiences and actions be recorded empirically correctly, it implies that the application of rational choice models to any kind of action, even affective or value-guided action such as love affairs or holding religious beliefs, would be *inadequate* if the involved actors actually did not act rationally. This way, the postulate of adequacy is an effective remedy against economic imperialism, and I am firmly convinced that Schutz, if still alive nowadays, would emphatically support this view. Schutz’s life-world analysis preserves the vast array of meaning constructions in social life, and the postulate of adequacy safeguards sociologists against reducing this diversity to a single aspect such as rational action.⁵

To complete the picture, it must be added that second-order constructs must not only be consistent with those of the first order but also with the scientific body of

⁵ For further discussions of Schutz’s postulate of adequacy see Wilson, 2021 and the other papers of this special issue.

knowledge of the discipline or one of its approaches. And they are also integrated into the scientific relevance system, such as the research question and the theoretical, methodological and methodical requirements. The postulate of adequacy requires that commonsense experiences and actions in everyday life situations are recorded empirically correctly and that the sociological *descriptions* as second-order constructs represent them adequately. However, it cannot imply that sociological studies should merely reproduce first-order accounts and not use any expert terminology. Scientific studies ask questions that actors in their everyday life may not consider, such as inquiries into the unintended consequences of actions or their latent functions. It is therefore perfectly legitimate for these studies to employ *sociological terminology* that is not commonly used in everyday life and may be difficult for laypersons to understand. And because sociological studies strive for generalization and employ general types of actors and actions, there remains always a certain gap between scientific constructions and everyday experience of individual actors, even in phenomenological sociology where the postulate of adequacy is met as precisely as possible.⁶

The Concept of Adequacy in Ethnomethodology

Harold Garfinkel was inspired by Schutz's lifeworld analysis and used its pragmatic, intersubjective pole to create a sociological approach which offers a different answer to Parsons' crucial question: how is social order possible? The social world is not only pre-interpreted but also ordered. How do members of a social setting accomplish this order? In his dissertation, Garfinkel (1952) contrasts Parsons's and Schutz's approach as two alternative paradigms to explain social order, as "correspondence theory vs. congruence theory," respectively, and explicates their constitutive assumptions. He concludes that Schutz's approach allows a more appropriate answer, which he draws in subsequently designing his first incongruity experiment. Garfinkel turns Schutz's lifeworld analysis into a sociological approach which he calls *ethnomethodology*. How members make sense can be observed in empirical reality, the egological perspective of the phenomenologist can be substituted by a sociological observer's perspective, and anthropological premises can be discarded. Ethnomethodology investigates how actors produce a local order by their concerted interactions and by their own methods of accounting and making sense.

From early on, Garfinkel is preoccupied with the question: how is an adequate sociological description possible? He realizes that Parsons's analytic "action frame of reference" (1968) preconceives what can be found in empirical reality, such as actors' means-end orientations and action-guiding values and norms. A sociological description then would consist in what corresponds to these concepts (hence the term *correspondence theory*). However, as the social world is already pre-interpreted by social actors, one should first investigate how they accomplish their daily lives. Before constructing analytic sociological concepts, one should ask if actors indeed orient to means-end relationships, to values and norms, and if so, how they do that. If each action is interpreted with a means-end scheme, how could one find an account

⁶ Inspiration for phenomenological research designs can be found in Aspers (2009) and Eberle (2022).

for expressive or intimate actions? An adequate sociological description must be congruent with commonsense reasoning and with concerted, communicative actions in everyday life (hence the term *congruence theory*).

In the influential collection of his studies, Garfinkel (1967) detects that “adequacy” is also a practical concern of actors in everyday life, and that scientists share such practical concerns. Like Cicourel (1964), he notes that sociologists apply all kinds of commonsense practices in collecting and interpreting their data – *commonsense practices that are seen but unnoticed*—and are often not aware of them. Thus, investigating these reasoning practices in everyday life as well as in scientific practice becomes a declared project of ethnomethodology. Its essential task is to conduct empirical research on how actors proceed, in everyday life as in science, when achieving “adequate” conclusions. Garfinkel is convinced that these taken-for-granted features of the subtleties of practices can be revealed if examined in sufficient detail.

Close attention to details is a hallmark of ethnomethodological research. Garfinkel soon detects that *situated actions are indexical*. That is, their meaning is context-dependent, but actions also change the context. To give a simple example: In a conversation, utterances are sequentially organized. What has been said so far forms the context for understanding the meaning of an utterance. But each additional utterance adds to this context and changes it, and the meaning of the following utterance is interpreted within the new context. For members of a social setting this indexicality is unproblematic. They fix it by their methods of practical reasoning, such as *the documentary method of interpretation*: Each appearance is treated as a document of a presupposed underlying pattern. This pattern is derived from individual documentary evidence, which then is interpreted based on what is known so far about the underlying pattern (Garfinkel, 1967: 78). Describing actions and contexts as types, as conventional sociology does, ignores this indexicality and reflexivity and produces only *glosses*. Ethnomethodological studies, in contrast, attend to the details of a social setting in its on-going, situated, locally accomplished order and investigate the methods by which this is done.

Garfinkel defines two methodological requirements for ethnomethodological researchers. The first is to adopt an attitude of *ethnomethodological indifference*, which means to bracket assumptions, theories and judgments and to observe a social scene in as unbiased a way as possible. This is in core a phenomenological attitude: To describe a phenomenon as it displays itself and not distort it by any preconceptions. The second is the *unique adequacy requirement*, which means that researchers must acquire a certain members’ competence to comprehend what is going on in a setting. Garfinkel (2002: 176) distinguishes a weak and a strong form of this requirement. The *weak form* is defined as follows:

Unique adequacy is identical with the requirement that for the analyst to recognize, or identify, or follow the development of, or describe phenomena of order in local production of coherent detail the analyst must be *vulgarly* competent in the local production and reflexively natural accountability of the phenomenon of order he is ‘studying’. (Garfinkel & Wieder, 1992: 182)

If an ethnomethodologist studies commonplace activities, such as queueing, crossing a street at the traffic light or greeting each other, the researcher's competence is usually adequate. The situation is different when a researcher is unacquainted with a specific setting. In this case, he or she can acquire the necessary competence by participating in this setting (as ethnographers usually do in the field they are investigating). They will have succeeded as soon as the others treat them as a competent member.

When ethnomethodologists study more specialized settings, such as a professional workplace, it may take years to become a competent participant in its practices. But this is exactly what Garfinkel (1986) requires with the *strong version* of the unique adequacy requirement. Studies of work cannot be conducted properly with only a vulgar competence; the researcher must also be able to recognize what is intelligible to the professionals in the setting. Hence, "ethnomethodologists have taken degrees in law and mathematics, worked for years in science labs, became professional musicians, and worked as truck drivers and in police departments in an effort to satisfy the unique adequacy requirement" (Rawls, 2002: 7). Due to their new way of precise description of the details of work practices, these studies have attracted the interest of practitioners. Industrial research laboratories began to hire ethnomethodologists for studying, for example, man-machine interactions in detail (see Suchman, 2007) in order to improve technological designs and support innovation. Garfinkel (2002) calls this intertwining of research and practice *hybrid studies of work*. In this context, he further specifies the unique adequacy requirement by connecting it to the criterion of praxeological validity: Adequate descriptions need not only be recognizable by the practitioners, they must also *work successfully as instructions*.

All of Garfinkel's ethnomethodological studies can be considered as attempts to produce adequate descriptions, which can only be assessed in relation to a concrete social setting and its ongoing production. He describes constitutive properties, communicative acts, constitutive rules, background expectancies, methods of commonsense reasoning, accounting practices and, finally, embodied practices. But he is never completely satisfied, as descriptions always abstract something from the embodied experience of situated action. This is the reason why Garfinkel continuously describes tutorial problems that readers could do in addition to reading. As Rawls (2006: 5) reports, "in order to understand what Garfinkel is trying to convey, the reader would have to engage the world of action/practice and embodiedly do the things that Garfinkel is describing". Viewed against this background, it seems logical that praxeological validity requires that in order to assess whether a description is adequate, it must be enacted as "instructed action" (Garfinkel, 2006).

With his criterion of praxeological validity Garfinkel presents a more radical concept of adequacy than any of his predecessors. In striving for successful, detailed instructions in the strictest possible way, ethnomethodological researchers must be competent to recognize, identify and describe the details, the indexical particulars, the "haecceities," the *just thisness* of a local setting, and their descriptions must allow for reproducing it. They must also ask themselves: are stricter or more stringent requirements even conceivable?

It is not surprising that not all ethnomethodologists are happy with this criterion. Lynch (2011) admits to skipping this requirement, and ten Have (2004) argues that, in

practice, it is not feasible and a compromise is needed. Jenkins (2018) and Hofstetter (2022) demonstrate with concrete research examples that situated actions often imply a multifaceted set of competencies which are not all describable. Paul Atkinson and Lisa Morriss (2017) raise concerns about the audience of such specialized studies. In technological environments where instructions play an important role, the criterion of praxeological validity arguably makes sense, and it can also work in other contexts. Sudnow (1978), for instance, described his own practices of playing jazz on the piano in great detail and subsequently offered an online course with instructions on how to learn to play jazz piano on your own (see “The Sudnow Method”). However, when a researcher like Livingston (1986) needs advanced mathematics to perform an ethnomethodological analysis of how a mathematical proof is achieved, how can readers of that study understand it without having the same mathematical competence? Is it only comprehensible for mathematicians?

Atkinson and Morriss (2017) note that ethnographic studies reach a much wider audience insofar as they use general concepts like ‘deviance’ that are understood by scientists as well as laypersons. In ethnomethodology, however, such glosses are not allowed as they obscure the indexicality of actions and contextual particulars. Nevertheless, a certain convergence between ethnomethodology and ethnography is observable, but more on the level of concrete studies than in methodological discussions. In a recent German debate on validity in qualitative social research, Meier zu Verl et al. (2023) are firmly in favor of the criterion of *praxeological validity* which, in their view, gains particular importance in the field of the qualitative-empirical sociology of knowledge and practice. However, they are willing to accept additional criteria of validity to ensure a connection within sociology. And like performative social research, they advocate a pluralization of forms of representation. They suggest that adequate descriptions in Garfinkel’s sense can also be presented in experimental ways that rely on mimesis and performance instead of information about information.

Conclusion

Our journey has taken us from the physiologist and probability theorist Johannes von Kries via the sociologist Max Weber and the social phenomenologist Alfred Schütz to Harold Garfinkel’s ethnomethodology. Although each of these authors built on the previous one and a clear line of development can be seen, the postulate of adequacy changed significantly each time. In the following, the central insights will be recapitulated.

Johannes von Kries developed a theory of probability calculus and coined the term “adequate causation”. His probability theory was less concerned with mathematical formulae and more with the truth conditions of probabilistic statements. A probability calculus is only possible with regard to objective probabilities. He preferred to call them “objective possibilities,” to avoid confusing them with subjective probabilities, the prevailing meaning of “probability” at his time. Kries introduced the concept of range (Spielraum) and claimed that a hypothesis has an objective, numerically determinate probability if its range of objective possibilities is indifferent, original and comparable. This is the case in ideal games of chance. Irrespective of subjective

expectations, a large number of dice rolls leads to an approximately equal distribution of the six numbers, the objective possibility of each number is 1/6.

In this context, Kries introduced the concept of “adequate causation,” which means that a result is caused with a certain, significant (objective) probability. While in the 19th century causation was always understood as a “necessary causation,” “adequate causation” takes a middle position between necessary and accidental causation: Something is caused with a certain probability. Although Kries was skeptical to apply this insight to empirical phenomena, he saw similarities, for instance, in large datasets. And he explicitly claimed to provide the theory that had been implicitly used so far at courts to assess the culpability of an offender. For this reason, I reconstructed some of the debate on adequate causation among philosophers of law. In any case, Kries’s main merit remains to have replaced the traditional concept of deterministic causality with a probabilistic concept of causality.

Max Weber was strongly influenced by Kries and adopted the concept of “adequate causation” but renamed the term to “causal adequacy”. In a detailed methodological discussion, he discerns the same logical structure in the legal question of attribution as in the historical question of causality. While historiography neither deals with legal norms nor with the attribution of guilt to an individual, both investigate the causal effects of human actions, and both search for concrete causes of concrete effects. To differentiate between essential and non-essential factors, they must make a selection and perform a number of logical operations to construct causal relationships. Weber agreed with Kries that historical and social sciences can only deal with probabilistic causalities, the opposite of “accidental” is not “necessary” but “adequate”. To assess adequate causes presupposes sound empirical knowledge about the facts to be explained.

When Weber presented his famous definition of sociology, he demanded that sociological propositions must be causally adequate. In addition, they also must be “meaningfully adequate”. The postulate of meaning adequacy was Weber’s major methodological innovation. To causally explain social action, we must adequately understand the subjective meanings that actors attach to it. This does not only involve the actual meaning of an action but also the motives involved. And it can concern a single individual’s action in a concrete historical case, or actions of a plurality of actors, or an ideal type of subjective meaning attributed to a hypothetical actor. In face of the multiplicity of empirical meaning constructions in history and society, Weber suggested to construct ideal types that are “pure” and unambiguously defined. For sociological considerations, he preferred the end- or purpose-rational type of action as it ensures the highest degree of clarity. Irrational behavior can then be described, understood, and explained as *deviations* from this ideal type. In this way, Weber attempts to synthesize understanding and explanation and thereby take a mediating position between the conflicting schools of his time.

Alfred Schutz was convinced of Weber’s sociological approach and set out to provide it with a viable philosophical foundation. In his view, a sound methodology of the social sciences has two pillars: not only the logic of research (Carnap, Popper) but also a constitutive analysis of the meaningful, preinterpreted social world. Guided by Husserl’s phenomenology, he clarified Weber’s category of “subjective sense (meaning),” analyzing the process of its constitution and its modifications depending on

the temporal, spatial and social perspective. He showed how interpretations are connected to the biographically determined stock of knowledge at hand, which is structured by typifications and systems of relevances. Schutz's mundane phenomenology did not bracket the "natural attitude" of commonsense, supplemented Husserl's experiential perspective with a focus on action, and examined the subjective as well as the intersubjective, pragmatic dimensions of the lifeworld. Schutz's analyses culminate in his final, systematic work *The Structures of the Lifeworld*, the basis of a sociology of knowledge.

Against this backdrop, Schutz examined the gap between scientific models of rational action and the lifeworld as it is experienced in everyday life. He reformulated the postulate of adequacy. He flatly rejected causal adequacy because it implied a mechanistic-deterministic worldview from the natural sciences, which he judged as inadequate for the social sciences. What Weber actually meant with causal adequacy, Schutz argued, is simply the "postulate of the coherence of experience". In his final formulation of the postulate of adequacy, however, he only demanded that the second-order constructs of the scientific observer be consistent with the commonsense constructs of actors in their everyday life. As even Schutz experts have overlooked this reduction, I discussed this problem in some depth. If the postulate of adequacy is interpreted in such a way that it only requires understandability of the second-order constructs in a commonsense perspective, all economic models of rational action must be judged as adequate even when real actors act irrationally. If, however, it also implies a coherence with experience, i.e., an adequate representation of empirical reality, as I demand, rational choice models must be judged as inadequate when applied to irrational behavior. Interpreted in such a way – and I am sure Schutz would agree – the postulate of adequacy is a firewall against economic imperialism.

At his time, Schutz could not have foreseen that his phenomenological lifeworld analyses would lay the groundwork for empirical, interpretive, qualitative social research. One of this strictly empirical, qualitative approaches was Harold Garfinkel's ethnomethodology. Garfinkel was inspired by Schutz's lifeworld analysis and used its pragmatic, intersubjective pole to create a sociological approach that has helped enormously to develop appropriate methods for analyzing the joint, sequential, local co-production of social order. From early on, Garfinkel was preoccupied with the question: How is an adequate sociological description possible? In his view, the conventional second-order constructs of sociologists only "gloss" the phenomenon in question, circumscribing instead of describing it. A description of how people accomplish their everyday affairs, of their reasoning, their practical actions and their social organization of sequential interactions is only adequate if it scrutinizes every detail of the setting under investigation.

The quest for adequacy persists in ethnomethodology, but in a different way. As with Schutz, causality is no longer an issue as ethnomethodologists do not ask, Why?, but How people accomplish their everyday affairs. In contrast to Schutz, they do not demand that second-order constructs are consistent with first-order constructs, but that empirical phenomena be described in as much detail as possible. Garfinkel formulated the "unique adequacy requirement," which means that researchers must acquire a certain members' competence in order to comprehend what is going on in a setting. In its weak version it requires that the analyst must be vulgarly com-

petent, in its strong version as developed in the context of the studies of work, the analyst must acquire expert knowledge. In the end, to assess whether a description is adequate, in other words, to assess its praxeological validity, it must be enacted as “instructed action”. We discussed the merits and the problems of this radical conception of adequacy.

Overall, the methodological postulate of adequacy is still considered important and relevant, after more than 100 years. In the approaches discussed here, we observe a trend to drop causal adequacy and to assess meaning adequacy in the context of empirical research. As has become evident, an assessment of adequacy also depends on the respective theoretical and methodological context. Ethnomethodological adequacy is much more rigorous than adequacy in other phenomenological approaches based on Schutz. Most interpretive, qualitative research approaches either explicitly dispense with causal adequacy, in line with Schutz, or are at least hesitant to identify causal factors. Rather, they aim to reconstruct social actions in their concrete context and to identify different types of action. Nevertheless, causal explanations have not disappeared from the social sciences. They are particularly common in quantitative sociology which deals with statistical data, exactly as Kries had suggested, but they often lack meaning adequacy as Weber has objected. And yet, if meaning adequacy is ensured, are there really no causal relationships at the level of concrete social actions in their specific context? As we have seen, the assessment of essential causal factors or favorable conditions in concrete cases is still relevant in legal matters. Why not in qualitative sociology, too? With his concept of “Wirkhandeln,” which is translated as “operation” or “working,” Schutz emphasized that actions have certain, often material effects. These effects can obviously cause other effects, as Weber pointed out with his concept of “unintentional consequences”. Effects of action causing further effects – wouldn’t it be time to revisit the concept of causal adequacy?

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