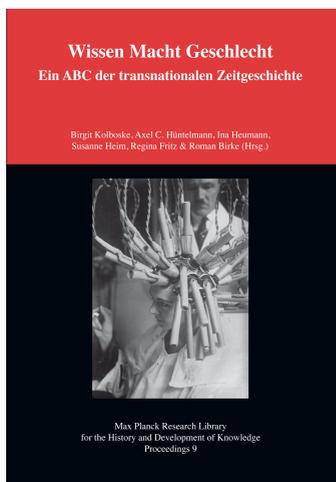


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*Jürgen Renn:*

Q Quest



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## **Q Quest**

*Jürgen Renn*

### **Quest for an Epistemic Theory of Action**

When studying the history of knowledge, understanding the nature and role of actions and practice is central. Knowledge results from experiences acquired in actions, it accompanies human practices, and it constitutes a potential for mentally anticipating actions. But what are actions and how do we conceptualize practice? In the late nineteenth century, such questions became central to pragmatism, a philosophical direction launched in the United States by Charles Sanders Peirce and William James, and then developed by John Dewey, George Herbert Mead, and others. The work of these thinkers made it evident how far reaching an investigation of this subject could and must be, including not only classical themes of philosophy, but also sociology, psychology, and history.

Since then, all of these domains have undergone substantial developments, including an accumulation of empirical knowledge and diversification of theoretical directions. Investigations into the nature and role of actions and practice are only one among many other subjects of these disciplines, and pragmatism is only one among many possible theoretical approaches. Yet, the study of actions and practice remains particularly challenging because it now constitutes, on the background of this unfolding of different disciplinary perspectives, what may be termed a “borderline problem.”

Borderline problems occur when objects of investigation cause different disciplinary perspectives to intersect, generating clashes and novel insights. These insights are not only triggered by the tensions between the different conceptual systems and disciplinary practices converging in a particular area of investigation, but also by the inevitability of confronting a shared problem that is independent of these disciplines and can be concretely explored. Actions and practices are currently explored within the social and the behavioral sciences, in the context of historical investigations, and even from biological and neurological perspectives. Bringing all of these perspectives to bear on a common problem should therefore constitute a source of major innovation, giving rise to an intellectual transformation that may well challenge some of the fundamental assets of all the disciplines concerned.

It therefore comes as no surprise that a complex of views, often labeled as “theories of practice” or “praxeology,” has come to play an important role as an emerging common conceptual framework, at least for some of the disciplines involved in studying action and practice. But in comparison with the original pragmatism mentioned above, and the work of some of its modern representatives such as Hans Joas (1996), it tends to downplay the one facet of this borderline problem that is contributed by the behavioral sciences and more specifically cognitive psychology and the cognitive sciences, and it apparently does so for systematic reasons that follow from its theoretical outlook. Questioning and critically reviewing this broad approach may therefore help to prepare an even more encompassing view that does not renounce this important factor. (The following account is based on the excellent review in Reckwitz 2003, from which the synthetic characterization of praxeology and most of the references given in the following are taken.)

Different social theories center on different conceptions of the social. They either place the emphasis on structures, on actors guided by some form of rationality, on actors bound by institutionalized norms, or on culture as an interpretative matrix from which the social is constructed. At first sight, it is surprising that these approaches should come as fundamental alternatives. Evidently, human societies are governed by structures that are not necessarily directly accessible to individuals, nor need they even be aware of them, such as those related to societal or even global divisions of labor, as emphasized by Émile Durkheim (1982 [1895]). Individual actors are clearly guided by some form of rationality and self-interest, although these can hardly be taken as universals, as was claimed by rational choice theory. Individual actions often follow normative rules corresponding to social expectations and roles, as Talcott Parsons has observed (1968 [1937]). And finally, actors are enabled to act within a world they can interpret in terms of shared symbol systems, cultural codes, and orders of knowledge, as has been stressed by philosophers such as Ernst Cassirer, and then again in the sequel of the cultural turn of the 1970s. In their concrete investigations, sociologists and historians are often pragmatic in making use of these different approaches in eclectic ways. The challenge is therefore to integrate them also more closely on a theoretical level.

Humans are animals. They share with other life forms the need to metabolize with their environment, to sexually reproduce, and to die, a biological constitution that induces needs, desires, and fears; they share with other animals the capacity to anticipate some of the consequences of their behavior and to interact with their environment using tools. Humans live in communities that maintain themselves through materially based interactions with their environment which are traditionally designated as labor. These interactions comprise sets of practices in

the sense of socially shared patterns of individual or collective actions. Practices are appropriated in ontogenesis and through individual experiences, and transmitted by participation in collective activities. These learning processes cannot be accounted for without taking into account the specifically human abilities of thinking, communication, and external representations of thinking, as they have been investigated in the vast field of psychology. The material means and contexts of action serve to both regulate and constrain practices and to open up unanticipated chances and difficulties.

While there is a wide range of conceivable human practices, also beyond those strictly involved in societal labor, human societies will perish if the totality of their practices does not accomplish their physical survival, if it uses the available resources in non-sustainable ways, or if it leads in other ways to self-destruction. Similarly, practices of drinking, eating, sleeping, giving birth, and so on, may be almost infinitely malleable but cannot be arbitrarily suspended without the risk of death or extinction. Death also imposes specific constraints and challenges on human practices, such as their transmission to the next generation. All in all, we see the necessity for iteration and potentials for conflict, for example, over limited resources and chances in life, opportunities to learn and forget, the accumulation or loss of material culture, and so on, which remain as persistent to human history as they are left unspecified by these critical anthropological facts.

Which concept of practice is appropriate to capture these facts? Doing justice to all of them is not only important to avoid a narrowed-down perspective on the richness of human social life. As was emphasized in the beginning, the different aspects listed above also address different disciplines, including biology and ecology, the social and the behavioral sciences, as well as the humanities, which may each bring their empirical and theoretical knowledge to bear on this issue. Reducing dimensionality thus also risks neglecting important insights from different disciplinary perspectives, and fails to take seriously the nature of practice as a borderline problem.

We label approaches that fully capture the anthropological gamut as “critical,” while approaches that introduce additional assumptions are considered as “overcritical.” Those that do not incorporate all these aspects as fundamental to their framework are characterized here as “undercritical.” Overcritical approaches working with substantial claims about human universals such as rationality, free will, normativity, or about the structure of human needs, have been generally rejected in recent years because their strong assumptions have not lived up to empirical scrutiny, in particular on the background of a growing number of comparative studies, also of non-Western cultures and pre-modern societies.

Undercritical approaches, in contrast, have been dominating the debate. In the context of global struggles against Eurocentrism, colonialism, and patriarchic social orders, they have fascinated their followers because of their sometimes radical renunciation of biases, including a bias distinguishing human actors from other agents. At the same time, by readjusting fundamental explanatory concepts, they appeared to be capable of escaping traditional theoretical tensions, for example, between social theories favoring actors and those favoring structures, but only at the price of losing focus of some of the above-mentioned anthropological facts. Undercritical approaches nevertheless have to deal with them in practice, but they typically achieve this by either introducing additional ad hoc assumptions when needed, or by ignoring or downplaying certain aspects.

Many studies in the social sciences today are influenced by what has been called the practice turn in social theory, which ranges from organizational research via the history of science and technology and gender studies to media and lifestyle studies. Such studies focus on the routines in organizations, the use and impact of media and technical artifacts, or on performances like “doing gender.” Classical theories of practices have been formulated, for instance, by Pierre Bourdieu and Anthony Giddens: Bourdieu has introduced concepts such as that of habitus, the social field, or the embodied character of knowledge (1977 [1972], 1990 [1980]); Giddens has suggested concepts such as that of practical consciousness referring to what individuals know about the social conditions of their own action, but are incapable of articulating in words (1979, 1984).

Some approaches go back to Ludwig Wittgenstein or Martin Heidegger, conceiving knowledge as skills governed by implicit rules, emphasizing the practical dimension of being in the world, and criticizing individualistic rationalism (Heidegger 1996 [1927]; Wittgenstein 1984 [1953], 1984 [1969]). Skillful practices are also at the center of the so-called ethno-methodology. French post-structuralist thinkers such as Michel Foucault and Gilles Deleuze have searched for alternatives to subject-centered social theories by focusing on “technologies of the self” or by conceiving the social as spatial and material assemblages of bodies and artifacts (1987 [1980]; Foucault 1988). Bruno Latour has conceived the social as being constituted by networks of interactions between humans and things, characterized as human and non-human “actants” (Latour 1995). Central to all these approaches is an emphasis on materiality and on an “implicit” logic of practice, including its iterative and unpredictable character. From our perspective, however, they all qualify as being undercritical. They neither incorporate the vast amount of knowledge about human cognitive abilities accumulated by the behavioral sciences, nor do they pay sufficient attention to the metabolic character of human interactions with their environment mentioned above. It is true that the turn of the social sciences to “praxeology” has brought practice and knowledge into a closer

connection, but it risks replacing traditional rationalistic and subject-centered theories of disembodied minds with an account of bodies for which neither thinking nor metabolizing with their environment is truly essential.

Theories of practice conceptualize social practices in terms of behavioral routines embedded in practical understanding. They hence involve knowledge predominantly in the form of “know-how,” incorporated in the bodies of the actors and the material artifacts they use. Such a reduced concept of knowledge can hardly serve as an instrument for analyzing and discussing the sophisticated mental and symbolic architectures of scientific theories, or of religious belief systems, let alone their historical transformations. Theories of practice cannot account for the practice of theories, other than in a superficial way. Theories of practice, on the other hand, have certainly contributed to the realism of sociological investigations by opening up perspectives to a plurality of practices, including practices of governance, organization, relationships, negotiations, self-control, or of “doing” science.

Theories of practice are often motivated by their critical stance against traditional views. For instance, the so-called “laboratory studies” have distanced themselves from a naive view of scientific institutions as places where theories and hypotheses are tested. Instead, they emphasize the role of informal routines of behavior supported by implicit background knowledge and context-specific practical forms of reasoning that react to situative irritations. The role of artifacts and experimental systems is key to this view. They are no longer seen as auxiliary instruments but as enabling or constraining certain forms of behavior and as generating “epistemic things,” demanding creative responses. This is a productive insight that is, however, often overemphasized at the expense of other aspects of practice.

The underlying ontology therefore merits a critical examination. Practices are considered to be material practices with an emphasis on bodies and artifacts, the latter often referred to as “things.” This conception of materiality is hence marked by a methodological individualism which replaces the traditional individualism focusing on the subjects of action. The material world is emphatically addressed as a world of “things,” and considered in relation to changing contexts of usage and know-how. This know-how, however, is primarily conceived as embedded in local practices and not systematically investigated as part of a larger world of knowledge in its own right, with its own long-term and global traditions, its cognitive development, including interactions with the experiences mediated by epistemic objects, and its relation to larger contexts of human existence.

Whether an object becomes an “epistemic thing,” for instance, may depend not only local laboratory situations but also on wider contexts such as the societal division of labor, on economic interests, or power structures, which may thus be-

come important sources of innovation outside of local practices. The creative act is often characterized in terms that suggest an irrational moment as being decisive, rather than encouraging a farther-going analysis of the interplay between changing cognitive, social, and material structures. In short, insisting on the implicit and inarticulate character of knowledge, rather than taking into account different forms of its symbolic representation that interact in their own specific ways with social and cognitive processes, tends to mystify the role of epistemic things to almost oracle-like instances where novelties emerge like fumes.

In short, there is a tendency to presuppose the discretization of the material world into “thinginess” as a self-evident ontology rather than to debunk it as the result of historical processes of reification. The long philosophical history of the concept of materiality, on the other hand, allows for a less restricted conception. It would be more plausible, in particular, to stress the metabolic character of practices that change, at the same time, the actors, means, objects, as well as the environment in which they co-exist. This would lead to a more holistic concept of materiality and interaction which challenges the assumption of praxeology whereby one can describe a plurality of actions merely as an assemblage. Accordingly, practices would have to be understood as being part of a system of social activities, which only in their totality achieve certain collective goals such as the reproduction of a society.

Theories of practice, on the other hand, conceive the larger societal reality in terms of sets of loosely coupled practices, among which competitions, frictions, tensions, and conflicts may arise. Such complexes may be bound together by social fields, for example, by an institution or by the lifestyles of particular social groups, classes, and so on. The emphasis is placed on the fact that these macro-structures are just secondary, emerging entities constituted by the loose associations of practices. Recent studies of cultural globalization and multiculturalism, for instance, reject a conception of culture as a homogeneous sphere of shared norms, values, and symbol systems, and focus instead on local encounters in which different sets of practices and their corresponding background knowledge are superimposed and mingled, giving rise to unexpected cultural “tools” and interpretations.

Similarly, organizational research has turned critically against economic rational choice models, against conceptualizations of organization as institutionalized rationality, and against the idea of actors following explicit institutional norms. The daily life of an organization is accordingly characterized by behavioral routines and informal procedures making use of relations of trust, rules of thumb, informal networks, or of symbolic myths of organization. This account, at the same time, is richer and less systematic than that of institutional economics. Here, the more abstract concept of transaction costs serves to capture the effort

needed to enable, implement and maintain economic practices within institutional frameworks.

As fertile as these approaches certainly are when dealing with case studies, it is not easy, from this perspective, to account for the feedback that macro-structures such as the global economy, global power relations, or the structures generated by a global history of knowledge may in turn have on the single practices. When, for instance, the existence and stability of a society depends on a particular division of labor, its single practices are realized under systemic constraints that are only understandable within the logic of the macro-structure. It is also at the level of such macro-structures that, more generally speaking, human social formations are embedded in metabolic exchanges with their environment. The flows and transformations of material and energies taking place in human societies under conditions of limited resources cannot be understood at the level of single practices or their loose couplings.

This point of view is particularly relevant when it comes to the consideration of global issues in social theory. In their attempts to reduce macro-structures to the implicit logic of specific practices, the protagonists of practice theory have made it unnecessarily difficult for themselves to respond to the global challenges of today's world, as they may be described with the help of the notion of the Anthropocene, capturing the impact, on a global scale, of the cumulative effects of human practices over millennia and acknowledging the existence of planetary boundaries. As a result, the political implications of practice theory seem to oscillate between a fatalist conservatism and subversive anarchism.

Practices, on the one hand, are indeed conceived as following routines, but on the other hand also as open and unpredictable. They thus carry an inherent moment of innovation. This moment of innovation is associated with interpretative and methodical uncertainties of practice, opening it up to context and situation-specific reinterpretations. This inherent quality may have different roots. Practices take place in time and are never repeated under exactly the same conditions. This temporality is a persistent factor of change because it may introduce subtle shifts of meaning which, however, are not conceived in terms of cognitive structures but only at the level of practice itself. One of the main roots of innovation is the richness of possible contexts and situations in which practices are realized. There may be some situations, for instance the emergence of new artifacts, for which the existing routines of behavior turn out to be insufficient. In the history of science, we would describe such situations with the help of the concept of "challenging objects."

As I have stressed earlier, a strength of practice theory is its ability to go beyond seeing artifacts as material determinants of practices, or simply as symbols of a mental world. Artifacts enable but do not determine practices and may

become a source of innovation. But exactly how this happens remains unclear, even if local practices are “thickly” described in the greatest detail. It is at such points that, in order to avoid the tautology that changes of practice induce changes of practice, other dimensions such as methodical or interpretative knowledge, and motivational resources come into play, without, however, conceding them a deeper, let alone systematic analytical treatment in terms of mental structures. The critical question of how practices are actually adapted, rearranged, or given up when confronted with resistance or change is mostly relegated to case studies. The role of intentionality, normativity, cognitive and symbolic structures is not denied in practice theories but subsumed under a totalizing vision of materializing the social.

All of these dimensions are reduced to become merely aspects of practice. In coupling practices, actors, and artifacts to the point of conflating them, one risks, however, neglecting important degrees of freedom. Knowledge, in this understanding, is always embedded in practice and practice is embedded in knowledge, an assumption that effectively reduces the space for more intricate or wider-ranging interactions. Actors may possess knowledge as persons without ever implementing it in their social practices, unless special circumstances cause them to activate this hidden potential, for instance, when entering new contexts. Similarly, artifacts may represent knowledge even if they are not part of any social practices. They may simply serve to store knowledge and transmit it to situations when its potential eventually becomes activated by actors using them in the context of entirely new forms of practices.

In theories of practice, an important source of innovation is rooted in the fact that different forms of practice and the know-how pertaining to them may overlap or intersect in the same actors. In order to avoid the introduction of “overcritical” assumptions about anthropological constants regarding the actors, properties of subjectivity such as autonomy, reflexivity, or self-interest are exclusively considered as products of specific social practices. The subject, in this understanding, is nothing but a sequence of the social acts in which it participates and a bundle of the heterogeneous forms of knowledge associated with them. In an overreaction against traditional rationalism, thinking as the internal activity in which knowledge is actually processed, is almost categorically excluded from this framework – as if there were no ways to conceptualize historically, socially, or culturally shaped forms of thinking that avoid rationalist fallacies.

An epistemic theory of action instead requires moving beyond treating knowledge merely as a condition, aspect, or consequence of practice. It needs to acknowledge the systemic ways in which a knowledge economy in its own right shapes and orchestrates practice. Institutions and organizations rely on knowledge which they either generate or presuppose, thus depending on a

broader societal knowledge economy. Their activities involve transfer and transformation processes of knowledge involving different kinds of material representations, serving as the currency of a knowledge economy. Individual actors acquire historically specific abilities of cognitive and normative judgments through acculturation under given social conditions. Social norms, symbol systems, cultural codes, and orders of knowledge are not just part of local practices but are also shaped by long-term historical developments involving macro-structures, as well as individual cognitive processes. Individual actors appropriate knowledge made available to them from their individual perspectives with the help of external representations of shared knowledge, thus inducing variations of this shared knowledge. In short, the cognitive, material, and social aspects of knowledge are closely intertwined but irreducible dimensions subject to historical change.

In the past, different theories of culture have alternatively emphasized the primacy of the mental, the textual, or of practice. From a mentalist viewpoint, culture is primarily a product of the human mind, a system of ideas and world-views, as in Max Weber's sociology (1980 [1922]), or unconscious sets of rules as in structuralism, or intentionalities of acts of consciousness as in phenomenological approaches. Textualism, in contrast, has identified the social not with an internal world of human thinking, but with external and even public representations such as texts, discourses, symbols, and communication which are encoding a cultural meaning with regard to which the mental and the subjective have only a derivative character. Examples are Michel Foucault's theory of discourse (1989), Clifford Geertz's view of culture as text (1973), or Niklas Luhmann's focus on the constitution of the social by codes and communicative sequences (1995 [1984]).

Here, I would like to suggest that by conceiving action and practice as a borderline problem at the crossing point of social, behavioral, and historical investigations, one may develop an integrative perspective that takes into account what can be learned from each of these approaches and, at the same time, overcome some of their weaknesses. Instead of playing the different viewpoints off against each other, it seems more natural to conceive the mental as emerging from an internalization of a material and symbolic world, and this outer world, in turn, as a product of human practice in which the mental is embodied and externalized. In the course of historical developments, this leads to a co-evolution and superposition of mental and symbolic layers, material cultures, normative regulations, and of social and economic structures, which, in any given situation, co-exist, interact, and shape social reality on different scales, but are always embedded within our planetary environment and the constraints it imposes on this reality.

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