

Theorizing sustainability: How to better understand the social puzzle of alternative coordination forms

Andrea Maurer

Abstract. This article presents a research strategy that aims to develop sociological theories methodologically. This type of theorizing is applied to the issue of why sustainable use of limited natural resources is so difficult to achieve, even though it would be beneficial for the majority. While mainstream research currently focuses on markets versus government regulation, this article presents forms of social self-governance as alternatives and discusses their rise and functioning. The goal of developing expanded theories in this case is to provide explanations that clearly show why certain social factors, constellations, and mechanisms can contribute to the collective goal of a more sustainable future.

Action-based explanations are an important tool for this type of theory formation, as they can be expanded with reference to methodological principles and give explanations for why specific social aspects are relevant. To this end, the article identifies and differentiates between two types of theorizing and shows in which ways they expand sociological theories and what explanations they offer for the social puzzle of the constant rise and fall of alternative coordination forms. The first approach strives for theories of the middle range based on context-related models and emphasises the interaction between individuals and social context. The second approach uses a general principle of action in order to capture the effects of social factors in light of individual properties. Both approaches support the construction of more realistic theses and contribute to the debate on theory formation in sociology, which in turn will enhance the analysis of how a more sustainable way of life can be organised by cooperative coordination forms.

Keywords: alternative coordination forms, sustainability, social institutions, action-based explanations, common goals, Commons, economic sociology

1 Theorizing sustainability

The overuse of natural resources is an ongoing topic in human history, which has reached a new level with the emergence of modern industrial capitalism with an increase in the exploitation of humans, soil, water or forests. One of the ongoing

consequences has been the constant overuse of finite natural resources in production and consumption, which has resulted recently in many-fold effects such as climate change, a loss of biodiversity and overheating of cities to mention a few.¹ However, in sociology the theorizing of the overuse and devastation of natural resources has only recently begun. In this paper I address the conservation of natural resources as a common goal. On this basis, I will theorize sustainability from the perspective of organizing appropriate collective actions by establishing coordination forms that utilize a variety of social factors and mechanisms that support long-term collective efforts to maintain resources for use by next generations.

The backdrop of this paper is a growing awareness in society and the social sciences of these fatal effects and a rising concern about which forms of coordination could support a more sustainable use of natural resources beyond, or besides, markets and firms. So, my focus is on exploring social forms that support the aim of preserving natural resources for future generations. I start to outline the issue of sustainability in the framework of common goods, including common-pool resources, and exploring how and why some social factors, institutions and mechanisms support the rise and functioning of cooperative coordination forms as an alternative to hierarchical control as well as market competition.

For epistemic reasons, I do not start from ground zero to construct a completely new theory to deal with the problem of achieving collective goals since there would it be more efficient to systematically reviewing, checking and improving existing theories (see Popper 1935). In my understanding such theorizing can follow the principle of increasing realism. This means starting with highly abstract models or theories and extend them adding relevant social factors (see for example Weber 1978). In this sense, the aim of theorizing is to start with the well-known abstract model of collective action outlined in classic approaches (see for example Olson 1965; Hardin 1968), but then to extend it based on concepts from sociology and especially from new economic sociology (see Maurer 2021; 2025). Especially the notion of social and institutional embeddedness supports the idea of more realistic explanations. From this angle, I believe we can get a new perspective on how and why specific social forms come into being and bring about particular social institutions and mechanisms that explain why the organization of collective actions in favour of a sustainable use of finite natural resources is possible in certain cases. I believe developing sociological theories of collective action by using tools of new economic sociology provides a framework for studying when and why certain social factors, mechanisms and coordination forms can help to manage the exploitation of nature. As a result, I will outline a specific way of theorizing al-

1 According to the UN sustainable development goals (SDG) defined in 1992 and redefined in 2025 (see Bundesministerium für wirtschaftliche Zusammenarbeit und Entwicklung 2026) I focus on the overuse of natural resources and will ask what social forms could support the overall common goal of building a sustainable future.

ternative coordination forms that support a collective, sustainable management of natural resources by using and developing sociological tools.

The epistemic principles of the modern social science approach (Maurer 2025) which assumes that humans are able to understand the social and natural worlds through their senses can work as a solid basis. In this sense individuals, and their beliefs, motives, intentions and cognitive abilities, can be taken as the analytical starting point for explanations in sociology (see Weber 1978; Granovetter 1992). To take this notion further, social life can be interpreted as problems of coordinating actions from an individual point of view and highlighting coordination forms, and the associated institutions and mechanisms, that might help managing them (see Pinker 2018). As a result, outlining coordination problems and asking for what social forms might support handling sheds new light on how to deal with finite natural resources and by doing it from an individual point of view puts theory into practice. Proponents of the European Enlightenment, most of all David Hume (for more details see Bonß et al. 2021: 31–45), have defined the social sciences as a manner of theorizing that improves our knowledge about social facts. In contrast to philosophy as well as natural sciences the goal is to explain social phenomena by developing concise terms, constructing causal explanations and doing empirical studies. The causal hypotheses formed from these should be as precise as possible so that the theory can be tested and improved, thereby promoting theoretical progress (see Hedström/Swedberg 1998b; Hedström 2005; Maurer 2025).

I will elaborate and apply this understanding of theory formation to provide new, deeper insights into how collective actions and relations can be organized so that the goal of maintaining limited natural resources for future generations could be realized. I will start with the very basic model of collective action and explore by using sociological concepts what social factors, institutions and mechanisms might work in favour of managing it. Theorizing sustainability, in this article, means reviewing, developing and improving theoretical tools, concepts and insights that help to explore how and why individuals might be able to handle and restrict the overuse of nature.

The tool which I want to present and discuss here is action-based theories, which allow for more concrete or realistic theses about why individuals establish and contribute to cooperative coordination forms. To expand such theories in a systematic way means to give concrete reasons for adding and focusing on additional social factors. Thus, theorizing functions as one constructs abstract models taken from reality, in a way that they mirror central aspects of the social world but expand them when there is evidence. One principle to develop theories in this sense is to look for factors that are relevant in reality. In my understanding an increase of realism in sociological theories improves our understanding of how to design and choose social institutions. Garrett Hardin (1968) and Elinor Ostrom can be seen as forerunners of interpreting the issue of a sustainable future in terms of common goods. They both aimed for analysing which kind of

institutional setting might (best) support the conservation of common-pool resources against freeriding. In difference to Hardin who emphasized the nation state and property rights in the framework of a classic perspective, Elinor Ostrom due to empirical comparisons adds direct interaction and communication to the classic model and thereby outlines new social institutions in order to overcome freeriding. According to the Commons approach we can put new light on cooperative coordination forms and consider them as a specific solution in the providing of common goods. Even though Hardin's (1968) groundwork and Ostrom's (1990) writings have initiated many analyses of how to regulate the use of common-pool resources they did not offer sociologically informed explanations about what social forms can be expected for certain contexts and how they work differently than markets and hierarchies. So, the question remains: how can sociologists add to this research and develop a theoretical perspective?

In this article I will show how sociologists could start using and developing their tool kit to explain when and why alternative coordination forms might be a solution in the economy that enhances sustainability. One way to do so is by highlighting alternative forms of coordinating beyond competition market and the capitalistic firm. With a brief glance into history, we see that over the last 250 years, while the central capitalistic institutions have stabilized successfully, we see a cycle of rise and fall of alternative forms, which indicates some specificities and challenges. Even if some forms occur repeatedly and are re-established nowadays, such as cooperatives, some other forms, such as social self-governance and collective property rights, have vanished and need to be rediscovered like local energy communities, municipal-private-public partnerships as well as community currencies, green or contested money been reinvented to solve social and environmental problems (see Barinaga, Bazzani, Massó and Rycombel in this volume). Some researchers go one step further and connect the question of alternative coordination forms to the transformation of capitalism (Wright 2013; Neckel et al. 2022).

The relevance of economic sociology in the debate could stem from their recent theoretical developments that help asking under which social conditions individuals contribute to social self-governance forms. By doing so, the line of research initiated by Elinor Ostrom and others could be debated, revised and developed based on the outlined aims, tools and perspectives of (economic) sociology. This would mean theoretical progress as well as a step into the practical realm, which could stimulate further research and define a new research field for sociologists (Beckert 2024; Diekmann 2024 as well as the interviews printed here).

2 New Economic Sociology: a new way of theorizing

Since the 1970s, economic sociology has been rediscovered and has become a new branch of sociology. Two sides of the same coin enhanced the rediscovery of economic sociology in the 1970s. On the one hand, there has been the concern with constructing more realistic theories, which would address social interaction and interdependencies. On the other hand, there has been the concern with outlining a sociological perspective on markets and market exchange, which would address the economy related to social relations. The relevance of economic sociology stems from its focus on the social embeddedness of economic actions and the aim to provide more realistic analyses than classic economic and sociological theory (see Granovetter 1992; Smelser/Swedberg 1994). By doing so, economic sociology could address the social constitution and workings of markets and firms in modern economy. This has made new economic sociology an attractive partner for sociological theorizing, one that works on classic shortcomings. Most of all, it wants to add social interaction and institutions to sociological thinking on the economy by linking action and structure to broaden abstract models on both the social level (see Coleman 1990) or on individual and social levels (Granovetter 1990, 1992).²

2.1 Starting point and theoretical background

As a result, in the 1970s and 80s, some sociologists re-established a sound research programme for which they coined the term *New Economic Sociology* (see Smelser/Swedberg 1994). This programme inspired a vibrant research field, which gained high relevance in showing how social aspects frame markets. It also gained theoretical relevance by outlining a foundational framework under which researchers could share and develop tools and insights. The very question now is how it can be developed to theorize and empirically study issues of sustainability.

2.2 The basic research programme

A research programme in the social sciences requires 1) a methodological foundation, 2) assumptions about the social world and 3) theoretical tools and perspectives (Weber 1978: 3 ff.). The classics, Max Weber as well as Émile Durkheim, invented sociology as a social science, which aims to explore causal relations in

2 This was a major issue in the US as well as in European sociology since the 1970s and 1980s; there was much critique on pure correlations between individual properties as well as on economic theory abstracting from all kind of social relations and institutions when assuming full competition markets (see Granovetter 1990; Maurer 2021).

social life by using terms, concepts and models abstracted from reality.³ Max Weber sees the social world as being constituted by meaningful actions of individuals and thus made the understanding of actions of individuals the basis for sociological explanations. Such a scientific understanding should be evident and could, according to Weber, be attained through rational models such as the model of means-end-rational action. Weber suggests that the methodological reason of evidence starts with the model of means-end rational action but then switches to less rational modes, when there is no evidence in reality. »Methodologically, one very often has only a choice between imprecise terminology on the one hand, and on the other terminology which though precise is unreal and ›ideal typical«. In such a case the latter are scientifically preferable« (Weber, quoted after Whimster 2004: 327).

Thus, in particular social contexts, for which researchers have empirical knowledge, rational actions can be explained, like in the case of protestants who work hard, save money and, as a result, bring about the central institutions of modern capitalistic institutions due to their belief which later related to their economic interests (Weber 2009). Weber suggests that the methodological reason of evidence starts with the model of means-end rational action but then switches to less rational models, when there is no evidence in reality (section 2). So, Max Weber can be seen as a forerunner for what we call *action-based explanations* today. Moreover, he can be seen as a forerunner for a manner of sociological theorizing that starts with abstract rational models but expanding models due to context and thus offer causal explanations based on content-related models of action and situation. In this sense, Weber is a proponent of causal explanations that assume motives and abilities of individuals depending on social context so that starting with abstract models can lead to context-related explanations or causal reconstructions like that of the Protestant Ethic.

The programme of New Economic Sociology is close in aims and tools to the modern social science approach and especially Max Weber's sociology; without stating this explicitly. It also calls for discovering causal relations in the real social world and for taking individuals' actions as the driving force in the social world; it can be seen as a broader form of Methodological Individualism (Maurer 2024b; Udehn 2001). While early proponents of the programme started with rational models, such as the model of means-end-rational action, to explore which network patterns would support rational actions, some of them began to work with models of socially defined motives taking private interests as special case while

3 While both shared the aim of exploring causal relations, they differed in their central assumption of what constitutes social reality and what should be taken as a central explanatory factor. Émile Durkheim assumes the social world is based on group moral and driven by structural laws. ›Social facts« (*fait social*) exist independently from individuals and act as an external force on individuals (Durkheim 1938).

highlighting social goals or values (Granovetter 1990; White 2008; Zelizer 2002). In general, we see economic sociologists moving in the direction of theories of the middle range and a related-out branching (Maurer 2021).⁴

2.3 The concept of ›social embeddedness‹

New Economic Sociology has been established as a research programme, which aims to explain how and why ongoing social relations (Granovetter 1992) reduce uncertainty and thereby support market exchange. Its central tool became action-based explanations and its central challenge was to deal with the ongoing tension between abstraction and realism. The concept of social embeddedness became an integrating umbrella and put New Economic Sociology in a position to collaborate with other theoretical movements, as well as to look for new ways of expanding models in an understandable mode. Market economy is thus described, in contrast to the model of full competition markets, as a sphere of uncertainty due to the future and social actions. Individuals are described, in contrast to the model of homo economicus, through socially framed intentions and cognitive abilities. The notion of rational actors in competition markets is then seen as a special case and not as a general model.

As the economy is seen as socially embedded and framed by ongoing social relations and institutions, New Economic Sociologists reject the model of the modern market economy as an autonomous sphere, as well as a normatively defined functional subsystem of society. Instead, the concept of *social embeddedness* assumes that even in modernity, the economy is framed but not overwhelmed by society. This means one must explore which social factors or constellations influence market exchange and market structure. Early proponents focused on studying how and why ongoing social relations support markets by using network models and methods. Later, newcomers from other approaches began to focus on cultural factors and sometimes even assumed the moral basis of every economy and every economic institution, whether markets, money, financial systems or private households (Fourcade 2007; Zelizer 2011).

4 While Weber justified the construction of ideal types as a means of understanding and an analytical starting point, economic sociologists generally moved in the direction of middle range theories. The notion had been reintroduced by American sociologist Robert K. Merton in the 1940s to focus on theorizing between *Grand Theory* and historical descriptions. Merton coined the term to emphasize causal explanations that clarify why certain classes of social phenomena, such as deviant behaviour emerge. By doing so, Robert K. Merton (1967) inspired the new mechanism approach (Hedström/Swedberg 1998a), which indeed follows the same line of thinking, namely to broaden action models and to stop working with a general action principle (see also section 3.2).

2.4 A specific tool and its insights

The central tool in new economic sociology became action-based explanations that later on became linked to Robert K. Merton's (1967) notion of theories of the middle range. The justification for constructing theories of the middle range is to manage the tension between abstraction and realism by limiting the scope of explanations. Action-based explanations can be constructed in a more abstract or more realistic way since they allow for more abstract as well as more realistic models of social context as well as models of individuals and especially by modelling various forms of interaction between the individual and the social levels. Thus, they allow for causal explanations that clarify why either certain social or individual factors or even constellations of individual and social aspects bring about social phenomena such as economic institutions. In the 1970s, researchers such as Mark Granovetter, Harrison White, James Coleman, Ronald Burt and Victor Nee (for an overview and an introduction see Smelser/Swedberg 1994), to name a few, began to elaborate the notion of action-based explanations to provide more realistic economic analyses than economists. Influential examples are network models like that of strong or weak ties.⁵ By doing so, economic sociologists were able to criticize the exclusive emphasis on market coordination in standard economics as well as on hierarchy and control in classic sociology. Instead, they opened the perspective to social groups like business groups (Granovetter 1994: 454; 2001, 2011)⁶ as well as to the study of regions (Granovetter 1994: 459; see for a definition Swedberg 2003: 65 ff.; Maurer 2016). One result was that various social forms, beyond market and hierarchy, improve economic performance by undermining short-term profit orientation and by raising trust, loyalty or commitment due to direct social interaction.⁷

5 Network models and institutionalist theories were what broadened economic analyses at this point. In his early study on labour markets, Granovetter showed that weak ties improve the match between employers and employees through a faster and more comprehensive flow of information (Granovetter 2001, 2011). Others worked on concepts of social groups such as business groups, families, ethnic groups or regions to analyse how and why groups can be seen as a special social context, which brings about a switch from egotism to social orientation or from the longing for material goods to ideas or even reduce opportunism and guile on the individual level.

6 Those groups could be traced in Japan, where there is the *keiretsu*, *grupos económicos* in Latin America, and the *twenty-two families* in Pakistan (Granovetter 2001, 2011). They are seen as the social basis for building strategic alliances, creating collaboration, developing interfirm networks and constructing new organizational forms beyond markets and hierarchy. Thus, social relationships and groups can be seen as a factor for economic performance (Saxenian 1994; Stamm et al. 2019: 156–159), instead of as a factor that hinders market competition.

7 Harrison White (1981) defines markets as the result of processes of social interaction due to firms observing and communicating with each other based on signals in the hope that this presents the best trade-off between quality and costs. Ronald Burt (1992, 2005) analyses brokers as a bridge that link previously unconnected people and groups, thus bringing about innovation and

The development of New Economic Sociology shows that action-based explanations are an important tool in explanatory sociology, one which can be used and developed in different ways. Main proponents of New Economic Sociology moved into the direction of middle range theories, which means that they need to construct theories related and restricted to a particular context. By doing so, they improved our understanding of markets and opened the perspective to other coordination forms beyond markets. While this inspired many influential empirical studies, it did not lead to theoretical development or collaboration but rather to a dissolution of contours and new challenges in the field.

2.5 Current challenges of the research field

I see four current challenges in New Economic Sociology when it comes to theorizing. There is the need for a methodological foundation to manage the tension between abstraction and realism, for new perspectives that help to overcome the focus on markets, for an intense debate on how to move further and what kind of theory formation could enhance economic sociology.

First, economic sociology has been developing quite successfully by joining the macro-micro movement and developing action-based explanations about how social factors support markets and economic outcome. In this framework, exciting new insights into the rise, functioning and structure of various markets have been offered. Later, some very influential proponents moved in the direction of middle range theory since they wanted to offer more realistic explanations and analyses of the economy than standard economics. While they shared the goal, they often worked based on a different understanding of how to expand theories. The lack of a significant methodological background debate is evident in the fact that the new development is not based on clear fundamental considerations and principles. Moreover, the price for more realism is often overlooked, meaning the tension between abstraction and realism in the social sciences and how it is related to central goals.

Second, as a result, economic sociologists have widely ignored what has been said and done concerning the coordination forms beyond markets and have indeed overlooked the fact that markets are not always an adequate institutional

creativity; he also highlights that networks and groups can come with negative side effects such as stabilising social boundaries, exclusion and homophily. Brian Uzzi (1996, 1997), when studying the fashion industry in New York showed that direct interaction leads to a higher level of contracts, investment and innovation. It was empirically demonstrated that business partners in a network continue to hold on to cooperation, despite the opportunity for and the advantage of egotistic behaviour. This provides evidence for mixing market and social relations to improve economic outcome.

setting. Therefore, they have overseen the new reality of global warming and the challenge of finding ways into a more sustainable economy and society. Thus, economic sociology today needs to broaden its perspective beyond exchange relations and market coordination and open up to the possibility of other types of social interdependencies and the respective coordination forms, which are related to those new challenges. Issues of sustainability have highlighted the importance of common goals and the question of how to organise collective action to realise them. This has become increasingly urgent in the shadow of climate change. It is no longer the question of how to frame exchange relations but how to organise and coordinate collective actions, which support a more sustainable economy and society. The concept of sustainability, as well as economic and social crises, should lead economic sociologists to rethink markets and firms as the only or the best coordination forms and search for new theoretical perspectives that can guide their analyses and empirical studies on alternative coordination forms. In general, this could enable New Economic Sociology to conceptualize issues of sustainability and to contribute to practical solutions by exploring what could make them feasible in the long term and what they would look like.

Third, the macro-micro movement has supported the reinvention of action-based theories in economic sociology and sociological theory. New Economic Sociologists used this tool to explore social relations as a fundamental force in economic life, one that offers more realistic analyses of the economy than standard economics. They used network models to conceptualize and empirically study how various network patterns or institutions work in concrete markets. They used the tool of action-based explanations in quite diverse ways and often without giving much attention to fully understanding the underlying logic. As a result, we see a variety of network concepts, as well as other concepts in the field, side by side, often without providing a clear explanation for why the factors in question matter and usually without providing any reasons for why the expansion on the individual and/or social levels was necessary. Due to the lack of reflection concerning the extension of the core programme, economic sociologists are not aware of the different forms and what they mean for further collaboration. A major unsolved challenge in the programme of New Economic Sociology is to get a better understanding of the methodological background of action-based explanations and how and whether to expand them or not.

Fourth, the idea of constructing more realistic theories opened the door for newcomers from other approaches. Those newcomers entered the field by focusing on more social-structural or cultural factors and gave up the core task as well as the central theoretical tools of New Economic Sociology. They gave up the idea of interpreting social reality from the viewpoint of individuals to analyse issues and coordination problems and suggest ways to improve living conditions. Thus, the central tasks and tools, such as action-based explanations, became unrecognisable. A loss of identity as well as a rising ambiguity about what it means to work

in New Economic Sociology contaminates the programme today (Fligstein 2015; Maurer 2021a). This includes the question of who to collaborate with and where to find methodological and theoretical support. Most of all, economic sociologists need to consider how to deal with the tension between abstraction and realism. Such a debate could help us see what the social science approach offers to a fundamental understanding of how theory and practice are related to each other.

In the following section, we are dealing with how economic sociologists could link to the more general debate about how to broaden and enhance action-based explanations in economic sociology and how this might help to conceptualize and study coordination forms regarding sustainability and moving beyond individual market behaviour.

3 How to theorize and enhance action-based explanations

In the following section, we are dealing with how New Economic Sociology could link to the more general debate about how to broaden and enhance action-based explanations in sociology and how this might help conceptualizing and studying issues of coordination in a broader sense regarding sustainability.

Action-based theories can be considered as a central tool for the development of sociological theorizing, since they are related to the methodological framework of the social science approach. We can also find some helpful principles and rules for expanding theory in them. In order to discover common ground between New Economic Sociology and sociological theory, we need to briefly remember the joint concern of the proponents of the macro-micro movement and of New Economic Sociology. We take what they wanted to achieve to evaluate the tool of action-based explanations and highlight how this can be done. We will also see what methodological rules can be used to broaden explanations and what effects they have for connecting theory and practice.

Researchers in the US as well as in Europe reinvented action-based explanations in the 1970s for opening up black boxes and providing causal explanations. In parallel, New Economic Sociologists began to work on causal theses for how and why social relations shape market exchange. Relying on *Methodological Individualism* (Udehn 2001), individuals were assumed to be the central force in the social sphere. In weaker forms of Methodological Individualism, like the one most economic sociologists rely on, the central idea is to model actors in a social context and related to others. Since the core idea is to lay out social problems of individuals and how they can be handled by social institutions, both levels are described by models taken from reality by abstraction. Thus, one of the central challenges of this approach is to know when and why to be more abstract or more realistic.

3.1 Basic form and logic

One way to construct action-based explanations is quite near to the basics of the modern social science approach (see Maurer 2025). The core idea is to explore and analyse social issues such as violence or deprivation from the perspective of intentional actors and to ask how they could manage them. The methodological basis for doing so is to differentiate analytically between micro and macro levels and reconnect both levels in three steps (see Coleman 1990: 8 ff.). This logic suggests using one general action principle, such as all humans are able to choose actions in light of their motives and intentions or all humans are able to learn by experience. Based on such a general action principle, more complex models of individual action can be developed by adding more details, considering the action principle, such as various degrees of rationality and intentionality.

An important milestone in improving our understanding of action-based explanations and how they can be constructed has been the so-called *Coleman boat* (Coleman 1990: 9). It shows that models abstracted from reality are seen as a tool that should be as simple as possible to provide precise theses that can be empirically proven. The main aim is to explain how and why certain social factors or constellations shape individual actions and, through these actions, bring about social effects. Rational choice theory is recommended as a micro foundation because it helps translate social factors into expected benefits and costs and provides a clear rule for which action individuals choose. Moreover, the general action principle can be used for analysing various social contexts and thereby in other fields and disciplines. In this sense, the basic form is justified by its economic and systematic theorizing. In the framework of this rational social theory, James Coleman referred to and criticised Max Weber's model of bureaucratic organization as the last solution for organizing collective action. Instead, Coleman argued that, on the one hand, such organizations do not arise spontaneously and generally need a constitution and incentives to motivate members, particularly managers, to act in favour of the organizational goals. Coleman introduced the notion of »conjoint organizations« (1990: 72–81) to conceptualize that individuals, in their aim to reach common goals, would pool rights to manage them collectively and often transfer the pool of rights to a central authority that uses and holds them, as is the case with professional associations or unions.

In the writings of James Coleman, to increase realism means, in a first step, to specify or add relevant social factors and constellations, e.g. common goals and the pooling of social rights, to explain what institutions rational-intentional actors establish to realize their interests (see Coleman 1990). By doing so, he outlined that the establishment of organizations brings about new constellations of interest. Thus, a major effect of conjoint organizations is that individuals wish to introduce a constitution to control the rights and become increasingly more dependent on those organizational forms. The strength of this kind of theorizing is

to improve our knowledge about social factors in a general framework. The main criticism of this type concerns the use of rational choice theory (see for example Granovetter 1990). It is seen as being too abstract and, one could add, overemphasizes hierarchy as a coordination form to reach common goals (see Maurer 2021).⁸

3.2 Middle range theories: a way to broaden and enhance action-based explanations

Critique of the use of rational choice theory in sociological theory for being too abstract has led many economic sociologists away from this way of theorizing, in the direction of middle range theories (for an overview of the debate in the 1980s see Hedström/Swedberg 1998a). Middle range theories are another way to construct and expand action-based explanations. They can be found in Max Weber's sociology as well as in the writings by Robert K. Merton (1967, 1968), who coined the term *middle range theory* in the 1940s. Although this mode of theorizing adheres to the aim of causal explanations using models of individual action, it steps away from the notion of Grand Theory. Instead, theories of the middle range offer explanations for restricted classes of phenomena, such as the rise of modern Western capitalism or deviance.

3.2.1 Weber's notion of causal reconstruction as a form of content-related explanations

Weber's sociology assumes humans can act meaningfully and that such meaningful actions of individuals are the basis for sociological explanations; it does not mean they act meaningfully all the time. Understanding the meaning of action is always related to certain contexts and in this sense limited to the described conditions, as Weber illustrated in his well-known study of the Protestant ethic where protestants, in search of salvation, developed, due to religious ideas, action patterns such as working hard, maximizing profit and saving money systematically and by doing so triggered the rise of modern capitalism in the Western world starting in the sixteenth century. Understanding the motivation of the group of protestants was the basis (objective chance) for explaining those action patterns which, according to Weber, brought about and stabilized the typical institutions of modern capitalism: mass markets, privately-owned firms and legitimate profit-making (Weber 1978).

More generally speaking, scientific understanding seeks full evidence of the aims and values of individuals and the respective means in a particular context.

8 Max Weber's methodological writings can be seen as an early contribution for interpreting and solving this issue from a methodological viewpoint.

Such evidence is expressed in ideal types or rational models such as means-end rational action. This model understands individual action as a means to realize aims and comes with a high degree of evidence for certain situations where scientists can use their empirical knowledge. This model can serve as a starting point for sociological theorizing. The models of means-end as well as of value-rational action highlight »what-would-have-happened-if-action« had been rational and help to explain why, under certain circumstances, specific action patterns regularly arise and bring about socio-economic effects. Such ideal types lose empirical content but gain conceptual precision, as illustrated above. Max Weber explicitly deals with the tension between abstraction and realism and suggests to start with abstract models since they help to explore precise theses but in case they fail empirical proof to switch to more realistic models that take a more empirical information into account; this covers the idea to assume less rational and intentional actors.

What we can glean from Weber's methodological writings are the following central insights. First, sociology is an empirical science that takes its models or ideal types from reality through abstraction. In this sense, Weber suggests that the construction of ideal types, which highlight one aspect like rationality, shows evident causal relations (Weber 1978; !!!). Theorizing means to understand action patterns and to give an objective chance that they could occur in a certain context and thus bring about specific social phenomena. Broadening such explanations means mainly to specify context. Moving to less rational action models means to weaken evidence. Weber justifies the use of rational (action) models with the methodological rule that this is the most evident way to understand the meanings of individuals.

In his sociological studies, Weber applied this methodology to focus on how and to what extent economic, social or political institutions support rational actions of individuals. In Weber's institutionalism, we find a way of explaining the rise and functioning of specific institutions. A special focus of Weber's sociology is on how particular institutions frame and support the rational actions of individuals. The best-known theses in Weber's work are his analysis of modern rational capitalism, the nation state based on a bureaucratic staff, rational arts, sciences and beliefs (Maurer 2024a). Weber's relevance for practice originates from these concepts and material analyses. Those analyses outline which institutions or institutional settings support rational actions of individuals. As a result, in his work, a legal order based on a clear membership and respective legitimate rules that are implemented and enforced by a bureaucratic staff is proposed as the most rational form of achieving goals collectively due to the rational process of setting and implementing the rules of the social order.

3.2.2 Analytical sociology and mechanism approach: expanding models by taking logical constellations of desires, beliefs and opportunities into account

Proponents of new economic sociology as well as other sociologists have replied to the critique of the basic model and especially to the use of a general action theory.

One of them is Peter Hedström (2005), who began emphasizing Merton's notion of middle range theory to construct more realistic mechanism models. The logical structure of mechanism-based explanations is more complex than the basic model. Moreover, in the framework of the mechanism approach, Peter Hedström aims for causal explanations based on models of actors and social structure. He suggests increasing realism through constructing mechanism models on both levels: on the individual and the social. Consequently, he uses models that explore different logical constellations of social and individual factors. Mechanism models in this sense clarify certain interplays of changing opportunities, desires and beliefs. For example, a self-fulfilling prophecy explains that the false belief of a person about the liquidity of a bank makes him or her withdraw money from the bank and others, observing this, change their belief or recalculate the risk, also withdrawing money from the bank. Changing beliefs and an opportunity structure can lead step by step to bankruptcy if there is no counterreaction by chance that would stop and turn the process (Hedström 2005: 76 ff.) .

Mechanism models are more realistic because they clarify how typical constellations of desires, beliefs and opportunities work. Actions are no longer explained as the result of a rational interpretation of social opportunities but rather as the result of a change in beliefs or desires due to actions of others or even as the result of an interplay between individual factors, like in the case of wishful thinking, when strong wishes determine the interpretation of the situation.

In the end, we have a pool of mechanism models, which express different constellations such as the self-fulfilling prophecy, rational imitation of others, wishful thinking or rational calculation of opportunities. It is the skill of researchers to construct and apply mechanism models. Hedström, using simulation techniques, highlights all kinds of logical constellations. In line with the idea of theorising presented here, we could also draw on classical mechanism thinking, as laid out in the works of Max Weber (1978), Norbert Elias (1978, 123 ff.) and Heinrich Popitz (2017). Moreover, we can recognise in them an early line of context-related theory formation, which results in the abstract representation of specific social constellations exploring what triggers a certain process that starts at point A and continues until point B is reached. The most important model is that of strong competition over limited resources, so that any chance of controlling resources can set a process of monopolizing in motion which in the end leads to the formation of a monopoly and a social stratification around this monopoly (Popitz 185 ff.). In this kind of mechanism approach, theories can be made more realistic by varying the

characteristics of the resource, the number of people as well as by specifying time and space. The formation of monopolies is generally explained as a process which step by step leads to a concentration of scarce resources in the hand of few or single persons. Mechanism models, such as those developed by Elias (1978) or Popitz (1992), describe the effect that even random advantages due to context lead in case of strong competition to an accumulation of resources that strengthens the position of few at the expense of others. The core process of monopolizing is driven by competition on scarce resources that means that what one earns is a loss for others. Such models can be broadened by putting in more empirical information about the resources since this is the most relevant aspect; nevertheless, the number of people counts for competition. In the sense of the analytical mechanism approach⁹ also belief formation or rational imitation between the individuals might be a way to get more realistic analyses (for more details see Maurer 2021a).

In general, mechanism models describe how social phenomena are brought about step by step. One way to do this is by outlining how actions change in a systematic way the opportunity structure, e.g. leading to a more unequal distribution of scarce resources and opportunities. Another way, which is outlined by Peter Hedström, takes the interplay of social and individual factors as well as of opportunities into account and often combines different mechanism models even on the individual level.

3.2.3 Two ways of developing and expanding action-based theories

We have seen that action-based theories have been a central issue in sociological theorizing. Moreover, we have seen that there are two different ways of using and developing them.

On the one hand, there is the principle to base explanations on a general action theory, which is highly abstract, but which supports analyses of various social contexts and issues within a framework. This line of thought is mainly elaborated in rational choice sociology as well as in new institutionalist thinking. Collaboration means to use models across fields and to analyse the effects of various social factors through rational individuals in societal, political and economic spheres.

On the other hand, there are explanations built from middle range theory that aim for more empirical content and less abstraction in order to offer more realistic analyses than standard economics and sociology. This way is represented by parts of New Economic Sociology, Weberian institutionalism as well as the mechanism approach. Proponents of this line of thinking take action-based explanations a step further by conceptualizing various interrelationships between action and structure, which includes a change of the assumption of rational intention

9 For a comprehensive critical discussion, see Little 2025.

and of belief systems. Accordingly, those lines step away from the basic logic of interpreting all kinds of social contexts from the viewpoint of rational-intentional actors and the following effects. Instead, content-related models that explore various forms of interaction between individuals' motives and cognitive abilities become relevant for explaining social phenomena. In this sense, proponents of New Economic Sociology have begun to analyse markets as framed by moral and driven by irrational or at least non-rational motives.

By differentiating the two lines, we see that the aim to provide deeper economic analyses can be reached by either adding or specifying social constellations or by setting the assumption of a rational-intentional actor aside. This can be done by taking the social constitution of actors into account, like Max Weber described for protestants in the Western world, or by assuming that intentions, orientation, beliefs and levels of information are influenced by networks, social groups and other social relationships. Then, theories can assume objectively right as well as wrong beliefs, full or restricted information and even irrational aims and means. Assumptions of a lack of cognitive abilities, like unrealistic or objectively wrong belief systems, mean that sociological theories no longer refer to rational intentions, so they lose the classic normative point of reference for designing institutions and evaluation coordination forms.

A bridge between both lines can be seen in providing reasons for when and why actors rely on social institutions, frameworks or belief systems to choose actions, like when they know they lack knowledge as Raymond Boudon and Thomas Schelling outlined (see Hedström / Swedberg 1998a). Working on action-based explanations is one way to get a better understanding of how and why social factors and constellations shape the economy as well as society. To realise the tension between abstraction and realism and what the different ways to construct more realistic explanations would mean for designing social institutions helps to get a better understanding of whom to collaborate with and how to move forward.

4 How to apply the tool of action-based explanations to theorize sustainability

Today's debates focus on the overuse of nature and aim to find solutions for limiting the exploitation of natural resources such as water, air, soil, forests or fishing grounds and the related effects such as climate change. While New Economic Sociology was successful with action-based explanations in outlining how social factors reduce uncertainty in market exchange, they have not yet applied this tool to deal with this topic. Looking for theoretical tools to conceptualize sustainability in sociological terms and to outline social solutions is thus an important task today. Even though we have not worked enough with issues of sustainability and

alternative forms that could help move towards sustainability, we could do this if we remind ourselves of existing tools. This would not only enhance sociological theory but also its practical relevance. In this section, we will discuss what we can learn from other social scientists like Garrett Hardin and Elinor Ostrom, who have already started to deal with the exploitation of commonly used resources, using action-based explanations.

We will use the tool of action-based explanations to explore shortcomings in the work of those approaches (section 4.1) and will ask how sociological concepts could contribute to looking behind the given solutions (see section 4.2). We will consider the self-governance form based on social institutions as an alternative to markets (see section 4.3).¹⁰

4.1 Forerunner: Garrett Hardin and »The tragedy of the commons«

Garrett Hardin (1968) outlined the social problem that rational-intentional actors systematically overuse commonly shared natural resources such as water, fishing grounds or community meadows (the so-called *Allmende*). He explored a specific social interdependence that means that every single individual would get benefits only when using the commonly shared resource but would expect to pay the costs of others' use. Thus, the incentive for every individual is to use as much as possible. In the end, the tragedy of the common-pool resource is inevitable. For Hardin, the only proper practical solution would come through private property rights that would restrict individual use and would be guaranteed by the state. The solution is based on the idea of socially restricting the use of natural resources through hierarchy. As a side effect, Hardin (1968) revised and expanded the classical perspective, that assumed that rational-individual decisions, under the condition of markets, would bring about a social optimum.

4.2 Pathfinder: Elinor Ostrom and the »Commons Approach«

Elinor Ostrom is among Hardin's critics even though she shares his concern about the overuse of common-pool resources. She criticizes him for his highly abstract assumption that individuals do not interact or communicate. Moreover, she emphasizes that, in the real world, solutions, which go beyond governmental rule might be possible. »A substantial gap exists between the theoretical prediction that self-interested individuals will have extreme difficulty in coordinating collec-

¹⁰ A relevant debate over the last years has been about taxes raised by the state versus certificates, which firms can buy and sell on the market to restrict air pollution (see for example Engels 2006).

tive action and the reality that such cooperative behaviour is widespread, although far from inevitable.« (Ostrom 2000: 138)

On the one hand, Elinor Ostrom shares the outline of the research question and emphasizes the systematic exploitation of common-pool resources. On the other hand, she insists that there is a form of problem-solving beyond governmental regulation. Based on empirical observation, she points out that when communication and interaction are possible, a successful management of common-pool projects might be possible too (Ostrom 1998). She sees that communication and direct social interaction can bring about informal social institutions that restrict the individual use of the common-pool resources and thus substitute formal hierarchy as well as private property rights. From a comparison between successful and unsuccessful Commons, she concludes that such social institutions should be based on eight design principles that allow for dealing with the three main underlying problems: 1) the problem of supply, 2) the problem of credible commitment and 3) the problem of mutual monitoring. In various studies she outlines quite complex configurations of social factors that in her view need to be analysed to understand which rules individuals would establish and how they would improve both individual and collective benefits (Ostrom 1990, 2005, 2010). Based on this, she describes the following eight design principles as relevant for managing common-pool resources in practice. 1. The resource and its appropriators must be defined and thus limited. 2. There is a fit between the rules of the Commons and local conditions and a congruence between an individual's contribution and the yield they reach. 3. There are established arenas for collective decision-making and conflict resolution mechanisms. 4. There is monitoring of the resource and its extraction and the persons who monitor are accountable. 5. Sanctions are graded according to the offence and exclusion is only a minor sanction. 6. The commons are granted the right to organise themselves by the organisations surrounding them. 7. The right to organise themselves is guaranteed by the authorities. 8. Actions and responsibilities are embedded at various levels (Ostrom 2005: 258 f.; 1990: 88–102).

While these principles are given in a general description, they can be found in various forms in practice. This characterizes the whole approach presented by Elinor Ostrom. She uses abstract models but is not limited to them. She, like Weber, appreciates the analytical power of abstract models, like the ones of Garrett Hardin, but also wants to rely on »theoretically informed empirical inquiries in both laboratory and field settings« (Ostrom 2005: 216) and aims in her comparative studies to explore »confounding variables that simultaneously affect performance« by relying on theory as well as on qualitative fieldwork, experiments or quantitative survey research (Ostrom 2005: 280).

At first glance, we see a clear, theoretically based research question. Upon giving it a second look, we see the concept of »polycentric governance systems« managed by eight design principles to inform the practice of common-pool resources based on empirical insights. From a methodological point of view, Ostrom alters

her way of theorizing and moves into content-related analyses of how a social order can be built and stabilized. With a third look, we see that Ostrom offers explanations for the rise, functioning and reproduction of self-governance forms limited to certain conditions, which often allow for a change of motives. This is the reason why Ostrom's design principles make intuitive sense but lack clear sociological terms, concepts and theses.

4.3 How to move further by using concepts of New Economic Sociology

We can take Ostrom's approach as an invitation to go further and use the tools and concepts of New Economic Sociology for theorizing the rise and design of social rules that support a sustainable use of common goods such as water, air or soil. This is because Ostrom raises the question of how to organize and stabilize the use of pool-resources like Garrett Hardin but does not start from scratch. She assumes that self-governance systems can emerge to handle the issue that »individuals have continuously faced substantial incentives to behave opportunistically« (Ostrom 1990: 88 f.). She also notices some reasons for what social self-governance systems would need in terms of social conditions: 1) long-lasting social relations and the expectation to share a future that makes investments beneficial ; 2) extensive norms that define proper behaviour; 3) close relations and social interdependencies that make reputation a value asset, 4) similar assets, skills, knowledge or race. In general, she concludes that self-governance systems rely on rules that are brought about in long processes through collective-choice and using constitutional-choice rules. This means that common-pool systems have a history and use various social institutions to define and enforce operational rules that fit their context.

Referring to the social problem that a systematic overuse of common-pool resources is generated by the inherent incentive to behave egotistic and opportunistic, she asks for social rules and even norms that could restrict actions of individuals. She assumes there is pre-existing social communication, interaction as well as constitutional rules. She starts with context-related models as well as descriptions that allow the rise of a social order through various institutions and bring about successful forms of self-governance that vary in form and content. Thus, she describes the eight design principles not as conditional but rather as helpful for organizing common-pool resources. Furthermore, she offers only quite wide descriptions for how and why they work. Thus, her approach does not offer precise theses about how and why some institutions and rules work and support common-pool projects. She simply declares that they »affect incentives in such a way that appropriators will be willing to commit themselves to conform to operational rules devised in such systems, to monitor each other's conformance, and to replicate the CPR [common-pool resources; AM] institutions across generational

boundaries« (Ostrom 1990: 91) This is quite similar to a functional definition as it does not explain what motivates the commitment of individuals to the operational rules.

This is the right point for collaboration since it brings the before-mentioned tool of action-based explanations into showing how to use sociological concepts to offer more precise theses for why particular design principles are important. By doing so, we reach a deeper understanding of the functioning and stabilization of CPR forms. We approach this by referring to the two ways and logics outlined above (see section 2).

4.3.1 General concepts and tools used and developed in New Economic Sociology

When we take the notion of working with a general action principle (see section 1), the models would focus on social factors from the viewpoint of the generalized actor. They would lift the veil of some of the design principles by exploring why they matter to this generalized actor. Moreover, we can strive for how they may even enforce each other in restricting individuals' actions and at the same time improve the benefits of collective action.

When we take the explored design principles: 1 (clear membership and boundaries), 3 (arenas for collective decision-making and conflict resolution mechanisms), 4 (monitoring of the resource and its extraction as well as persons who are accountable), and 5 (graded sanctions), the well-established and improved concepts and theories of social capital, based on rational choice theory help to explain potential effects and offer clear empirical theses about how and why particular design principles support social self-governance and also how and why the mentioned preconditions might bring about social order to reach common goals. In this framework, we could state that clearly defined boundaries and membership are the basic conditions for monitoring and sanctioning because they define to whom they can be applied in a legitimate manner; this is even more important when it comes to global issues. A clearly defined membership defines to whom the rules matter and distributes benefits exclusively to members. Exclusion from a group means exclusion from the benefits, therefore group membership is an efficient form of social sanctioning. In this case, monitoring and membership are the pre-conditions for a successful construction and application of a sanction system, which could involve reputation or organizational roles, to name a couple, as a way of rewarding members beyond and independently from the collective goal, which undergoes the incentives of opportunism. The higher the benefits and the more effective monitoring and sanctioning, the more individuals' actions can be shaped and limited. As a result, a respective social order is explained through social factors that, on the one hand, make opportunism and resource overuse costly, while, on the other hand, providing incentives beyond the com-

mon goals. Furthermore, we can add that arenas (as well as different forms of) for collective decision-making and conflict-solving institutions reduce control and information or knowledge and thus improve efficiency so that benefits increase. As a result, the withdrawal of membership and reputation function as costly sanctions on the individual level but are often the side-effect of social processes and come with low real costs.

As a research strategy, sociologists should focus on the opportunity structure to explain what social factors help to establish social self-governance forms and which social factors support the functioning and stabilization of collective projects. In a first step, according to Weber, this means to search for social institutions which balance interests and values. The research field, which would open up, reveals first relevant social factors that bring about social order and forms of social self-governance and, in the second step, why membership, sanctions, monitoring and forms of collective-decision making are important and what social scientists can say about how they should be designed in practical terms.

4.3.2 Content-related models and insights from New Economic Sociology

When we follow the idea of middle range theories, content-related models as well as mechanism models are used. In this case, we can either rely on Max Weber's methodology and ideal types, the concept of social embeddedness developed in New Economic Sociology or mechanism models to shed light on the rise of common-pool projects and the functioning of at least some principles.

Again, sociological concepts and models can be used to reveal the functioning and the effects of principles 1 (clear membership and boundaries), 2 (collective-choice arrangements), 4 (monitoring through responsible members) and 5 (conflict-solving). It is important to use models that show why egotism and opportunism are restricted, for example, through rules that are accepted as legitimate. Weber stated that when people accept rules because they believe them to be legitimate, either by being set in a formally correct way, based on tradition or charismatic characteristics of a leader, we can say that social order based on legal constitution, tradition or charisma of leaders will be accepted and followed by members and order is obeyed (Weber 1978). Thus, the central thesis says that when, due to the social background, the social order and the respective social institutions are seen as legitimate, people will basically follow the rule regardless of their interests. In this sense, the acceptance of the order as legitimate by the individuals explains its functioning and effects as well as the degree of rationality. The second principle can be read as an accepted basis for setting rules as well as systems of monitoring. When the order and the rules match local conditions, they raise efficiency by using knowledge and reducing the need for control. In this sense, the belief of individuals that a social order is legitimate is the basis for the functioning, efficiency and stabilization of self-governance forms. One thesis to be proven would say that

when a common-pool system signals assigned legitimacy by its members, due to a match of operational rules with constitutional rules, it is related to society or the larger groups and thus can restrict opportunism and egotism in the project. In this case, the social context works through a change in motives and beliefs; or to say it in other words: short-term egotism is framed through societal ideas or beliefs. The relevance for practice would stem from the suggestion that collective action can be organised based on rules that are accepted as legitimate. Therefore, charismatic leaders, tradition as well as international rules are essential for the establishment and functioning of social self-governance.

On this second path, in the framework of the mechanism approach, we can look for mechanisms which could explore the functioning of the design principles. In this case, we need to check for constellations of changing desires, beliefs and/or opportunity structure that explain why actors stick to the collective aim and how opportunism and egotism can be limited. The simple default option in this case could be used to explore principles 4 (monitoring) and 5 (graduated sanctions), which then would mean that the monitoring and sanctioning of others would change the opportunity structure of the majority of members so that, in the next step, the legitimacy, commitment and, in the end, the efficiency of the collective action would improve. One social factor, which would bring in more realism but is not mentioned in the work of Elinor Ostrom, is a charismatic leader or members who could change the beliefs of others and could, by imitation, rise the social responsibility of individual as well as corporative actors (e.g. see Koos 2021). In this case, empirical studies could check to what degree monitoring and sanctions and charismatic members would improve collective action.

5 Conclusion

In this paper I suggest developing expanded theories, based on classical models while considering current challenges of our time such as sustainability. This way of theorizing aims to explore social problems and conceptualize them in precise terms and translate them into clear sociological research questions that support our understanding of the social world. In difference to other approaches (see for an overview Swedberg 2014), this research strategy builds on methodological and theoretical elements that exist, revisiting them, improving them and taking them a step further, rather than discarding everything and starting from ground zero. To this end, I have proposed to construct theories based on clear methodical rules to handle the ongoing tension between abstraction and realism.

I have rediscovered action-based explanations as a central tool of the social sciences, reinterpreted them, and shown how they make it possible to expand theories on the basis of clear methodological principles. I have presented this as a basis for sociologists to respond in particular to the demand to make explanations of

social, economic and political phenomena more realistic by identifying social factors and taking them into account as relevant. Furthermore, I have outlined two main ways of undertaking such extensions from an epistemic perspective. To this end, I have specified their background and the resulting form of extension as well as the related effects for sociological theory formation. Thereby I could show that one way to expand action-based theories aims for exploring the effects of additional social factors in managing certain coordination issues through the lens of rational-intentional actors thus highlighting costs and benefits. The second way highlights the relevance of specific social constellations between context and individual, and how this supports or hinders problem-solving by framing motives and cognitive abilities.

In contrast to much of the research on sustainable behaviour, I propose not to assume a given prosocial orientation, but rather to examine the question of why a collective sustainable use of resources with regard to future generations is not easy to achieve. To this end, I refer to the concept of common goods and the outlined incentives for excessive use due to the interaction and time structure. Then I ask what social factors and underlying mechanisms can help to redefine this constellation. When interpreting a sustainable future referring to the foundational concept of common good and collective action, we can identify not only a systematic incentive for individual opportunism but moreover explore the chance for coordinating action in favour of this common good based on social factors and mechanisms. In exploring this research question, I have discovered alternative forms of cooperative coordination that differ from markets and hierarchies in that they are found in specific social contexts and are accompanied by particular social mechanisms that contribute to achieving common goals such as the more sustainable use of natural resources.

A central aspect of this article is the role of New Economic Sociology in applying action-based explanations and expanding them for analysing economic phenomena. In contrast to the highly abstract models of economic theory, New Economic Sociology emphasizes the social embeddedness of markets. In difference to classical sociological approaches, it illustrates the need for adding social relations, networks or institutions in sociological analyses and broaden the model of the role player. This approach has helped much to realize the limits of the highly abstract market model used in neoclassic theory and put the coordination effects of markets in question what opens the view to other coordination forms. Thus, I suggest applying the tools developed within new economic sociology, mainly action-based theories of middle range, to look for other coordination forms and related institutions that could support a more sustainable use of resources. In practice this would mean integrating cooperative forms of coordination into the research program and identifying which social institutions support the rise as well as the functioning of such social self-governance forms to gain a more sustainable economy. This result would be, in my view, an important contribution to the

debate of why we so often observe the collective failure to manage the use of natural resources and what could help to strengthen alternative coordination forms. Economic sociologists can contribute to the overall question of what markets and hierarchies cannot do, and when cooperative forms help organizing collective actions in favour of a sustainable future. The idea is that economic sociologists can indeed use and develop their concepts and tools to explore those social factors that help to restrict and control commonly used resources such as water, soil and forests. Context-related models like those of given direct interaction and communication, commonly shared values, charismatic leaders, pre-existing constitutional rules or legitimacy can be used to explain, step by step, how cooperative coordination forms can be established and maintained or when they fail. In light of this, this manner of theorizing takes empirical contexts as the central basis for exploring preconditions and characteristics of specific alternative forms in order to initiate empirical studies. Economic sociology could open a new perspective on sustainability and define a new research field, in which various forms of self-governance become the central topic and object for empirical studies. Theoretical progress would come from exploring what social factors, constellations and institutions help build and stabilize cooperative coordination to deal with current challenges such as a more sustainable use of limited resources.

In addition to new economic sociologists, proponents of strict methodological individualism and/or the rational choice approach in sociology also developed a way of theorizing that aims to provide more realistic explanations, but at the same time follows the epistemic idea of efficient and economical theory formation by demonstrating the relevance of social factors from the perspective of a general model of action. This way uses the model of rational-intentional actors as an analytical starting point, in order to interpret social contexts from the viewpoint of a general actor. It can also take this model as a normative point of reference for outlining practical solutions that then emphasise benefits by coordinating actions. I have shown that broadening explanations means to provide a reason for why additional aspects of the social context are relevant for individuals when achieving their goals. Only in a second step, limited knowledge or cognitive abilities should be taken into account; what is especially important when prices are not the single dominant information or when there are no prices like in markets for single goods. Theoretical progress comes from exploring different social factors that support either autonomous individual action or collective action such as that in cooperative forms, in favour of a more sustainable use of natural resources. This line of thinking provides precise theses on why certain social factors, like strong-knit groups, support the rise and maintenance of cooperative coordination forms, even within the modern economy. The central insight is that alternative coordination forms, which depend on social institutions that restrict individual opportunism and profit-seeking, are in constant need of balancing common goals and private interests. The further task for sociologists would be to search for

those factors that build up alternative forms in favour of a more sustainable use of resources successful by providing a variety of benefits for individuals.

Another new perspective and insight have been elaborated here by addressing common goals such as a more sustainable future through studying alternative coordination forms. This helps us to look at one of the most exciting puzzles, when debating coordination, namely that of the cycle of rise and fall of cooperative forms. This has been set as a clear research question here: The question of what enables individuals to reach common goals and what social institutions help them manage challenges in practice such as the balance between common and individual interests. In essence, we see that theorizing within this framework can be applied to different social issues, however it means translating them into clear research questions, using and then developing action-based theories so that one can explore what social factors become relevant and why. This would, in the end, open the way to practical, theory-based solutions that can be outlined and empirically studied.

While many sociologists over the last fifty years have abandoned the aim to revisit and develop theories, using concepts and orientation hypotheses for doing empirical studies, I highlight the idea of a systematic methodologically guided elaboration of classic models, by adding relevant social factors to offer new and deeper insights into the social world. To deal with current challenges such as organizing a more sustainable use of natural resources I suggest exploring those specific social factors that help to establish, promote and stabilize collective action in order to achieve sustainability and therefore provide more realistic explanations. Moreover, by exploring, theorizing and empirically studying the specific social factors and mechanisms that promote collective action in favour of common goals, helps to understand and solve the puzzle of alternative coordination forms. Thus, this result of being able to study, theorize and analyse alternative coordination forms is a central contribution to create a more sustainable world. The contribution of sociologists in this field is to work on and offer more precise theses about what coordination forms function why and what particular social factors support them. The form of theorizing presented here can help us do that.

References

- Beckert, Jens (2024): *How We Sold Our Future. The Failure to Fight Climate Change*. Cambridge: Polity.
- Bonß, Wolfgang / Dimbath, Oliver / Maurer, Andrea / Pelizäus, Helga & Schmid, Michael (2021): *Gesellschaftstheorie. Eine Einführung*. 2nd edition. Bielefeld: UTB transcript.
- Bundesministerium für wirtschaftliche Zusammenarbeit und Entwicklung (2026): »Nachhaltigkeit«. <https://www.bmz.de/de/service/lexikon/nachhaltigkeit-nachhaltige-entwicklung-14700> (last accessed: 15.2.2026).
- Burt, Ronald S. (1992): *Structural Holes. The Social Structure of Competition*. Cambridge: Harvard University Press.

- Burt, Ronald S. (2005): *Brokerage and Closure. An Introduction to Social Capital*. Oxford: Oxford University Press.
- Coleman, James S. (1990): *Foundations of Social Theory*. Cambridge/MA and London: Belknap Press.
- Diekmann, Andreas (2024): *Klimakrise. Wege aus dem Dilemma*. Baden-Baden: Nomos.
- Durkheim, Émile (1938): *The Rules of Sociological Method*. New York: Free Press.
- Elias, Norbert. (1978): *The civilizing process*. New York: Urizen Books.
- Engels, Anita (2006): *Market-Creation and Transnational Rule-Making: The Case of CO₂ Emissions Trading*. In: Djelic, Marie-Laure/Sahlin-Andersson, Kerstin (Eds.): *Transnational Governance: Institutional Dynamics of Regulation*. Cambridge: Cambridge University Press, pp. 329–48.
- Fourcade, Marion. (2007): *Moral Views of Market Society*. In: *Annual Review of Sociology*, 33, pp. 285–311.
- Fligstein, Neil. (2015): *What Kind of Re-Imagining Does Economic Sociology Need?* In: Aspers, Patrick/Dodd, Nigel (Eds.): *Re-imagining economic sociology*. Oxford: Oxford University Press, pp. 301–315.
- Granovetter, Mark (1990): *The Old and the New Economic Sociology. A History and an Agenda*. In Friedland, Roger/Robertson, Alexander F. (Eds.), *Beyond the Marketplace. Rethinking Economy and Society*. New York: Aldine de Gruyter, pp. 89–112.
- Granovetter, Mark (1992): *Problems of Explanation in Economic Sociology*. In Nohria, Nitin/Eccles, Robert G. (Eds.): *Networks and Organizations. Structure, Form, and Action*. Boston: Harvard Business School Press, pp. 25–56.
- Granovetter, Mark (1994): *Business Gropus*. In Smelser, Neil/Swedberg, Richard (Eds.), *Handbook of Economic Sociology*. Princeton: Princeton University Press, pp. 453–475.
- Granovetter, Mark (2001): *Coase Revisited: Business Groups in the Modern Economy*. In: Granovetter, Mark/Swedberg, Richard (Eds.): *The Sociology of Economic Life*. 2nd edition. Boulder: Westview Press, pp. 93–130.
- Granovetter, Mark (2011): *The Impact of Social Structure on Economic Outcomes*. In: Granovetter, Mark/Swedberg, Richard (Eds.): *The Sociology of Economic Life*. 3rd edition. Boulder: Westview Press, pp. 46–61.
- Hardin, Garrett (1968): *The Tragedy of the Commons*. In: *Science*, 162(3859), pp. 1243–1248.
- Hedström, Peter (2005): *Dissecting the social. On the Principles of Analytical Sociology*. Cambridge: Cambridge University Press.
- Hedström, Peter/Swedberg, Richard (Eds.) (1998a): *Social Mechanisms. An Analytical Approach to Social Theory*. Cambridge: Cambridge University Press.
- Hedström, Peter/Swedberg, Richard (1998b): *Social mechanisms: An introductory essay*. In: Hedström, Peter/Swedberg, Richard (Eds.): *Social Mechanisms. An Analytical Approach to Social Theory*. Cambridge: Cambridge University Press, pp. 1–31.
- Koos, Sebastian (2021): *Social Responsibility in the Economy*. In: Maurer, Andrea (Ed.): *New Perspectives on Resilience in Socio-Economic Spheres*. Wiesbaden: VS Springer, pp. 289–302.
- Little, Daniel (2025): *Rethinking Analytical Sociology*. Cheltenham: Routledge.
- Maurer, Andrea (2016): *In Search of the Golden Factor: Conceptualizing Resilience in the Framework of New Economic Sociology by Focusing ›Loyalty‹*. In: Maurer, Andrea (Ed.): *New Perspectives on Resilience in Socio-Economic Spheres*. Wiesbaden: VS Springer, pp. 83–110.
- Maurer, Andrea (2021a): *Exploring Social Factors in the Economy: New Economic Sociology and The Mechanism Approach*. In: Maurer, Andrea (Ed.): *Handbook of Economic Sociology for the 21st Century*. Cham: Springer Nature, pp. 47–61.
- Maurer, Andrea (2021b): *Handbook of Economic Sociology for the 21st Century*. Cham: Springer Nature.
- Maurer, Andrea. (2024a): *The sociology of Max Weber: background, foundation and perspectives on the economy*. In: Maurer, Andrea (Ed.): *Max Weber's Sociological Thought on the Economy*. Newcastle: Agenda Publishing, pp. 31–57.

- Maurer, Andrea (Ed.) (2024b): *Max Weber's Sociological Thought on the Economy*. Newcastle: Agenda Publishing.
- Maurer, Andrea (2025): Action-based explanations as a basis for the analysis and design of the social world. In: *British Journal of Sociology*, 76(1), pp. 173–179. <https://doi.org/10.1111/1468-4446.13155>
- Merton, Robert K. (1967): *On Theoretical Sociology. Five Essays, Old and New*. New York: The Free Press.
- Merton, Robert K. (1968): *Social Theory and Social Structure*. New York: Free Press.
- Neckel, Sieghard/Degens, Philipp & Lenz, Sarah (Eds.). (2022): *Kapitalismus und Nachhaltigkeit*. Frankfurt/Main: Campus.
- Olson, Mancur (1965): *The Logic of Collective Action*. Cambridge: Harvard University Press.
- Ostrom, Elinor (1990): *Governing the Commons. The Evolution of Institutions for Collective Action*. Cambridge: Cambridge University Press.
- Ostrom, Elinor (1998): A Behavioral Approach to the Rational Choice Theory of Collective Action. Presidential Address, American Political Science Association, 1997. *American Political Science Review*, 92(1), pp. 1–22.
- Ostrom, Elinor (2000): Collective Action and the Evolution of Social Norms. In: *Journal of Economic Perspectives*, 14(3), pp. 137–58.
- Ostrom, Elinor (2005): *Understanding Institutional Diversity*. Princeton: Princeton University Press.
- Ostrom, Elinor (2010): Beyond Markets and States: Polycentric Governance of Complex Economic Systems. In: *The American Economic Review*, 100(3), pp. 641–672.
- Popper, Karl (1935): *Die Logik der Forschung*. Vienna: Julius Springer.
- Popitz, Heinrich (2017): *Phenomena of Power. Authority, Domination, and Violence*. German Orig. 1969/21992. New York: Columbia University Press.
- Pinker, Steven (2018): *Enlightenment Now. The Case For Reason, Science, Humanism, And Progress*. New York: Viking.
- Saxenian, AnnaLee (1994): *Regional Advantage: Culture and Competition in Silicon Valley and Route 128*. Cambridge: Harvard University Press.
- Smelser, Neil/Swedberg, Richard (Eds) (1994): *The Handbook of Economic Sociology*. Princeton: Princeton University Press.
- Stamm, Isabell/Discua Cruz, Allan L. & Cailluet, Ludovic (2019): Entrepreneurial Groups: Definition, Forms, and Historic Change. In: *Historical Social Research*, 44(4), pp. 7–41.
- Swedberg, Richard (2003): *Principles of Economic Sociology*. Princeton: Princeton University Press.
- Swedberg, Richard (2014): *Theorizing in Social Science. The Context of Discovery*. Stanford: Stanford University Press.
- Udehn, Lars (2001): *Methodological Individualism. Background, History and Meaning*. London and New York: Routledge.
- Uzzi, Brian (1996): The Sources and Consequences of Embeddedness for the Economic Performance of Organizations. The Network Effect. In: *American Sociological Review*, 61(4), pp. 674–698.
- Uzzi, Brian (1997): Social Structure and Competition in Interfirm Networks: The Paradox of Embeddedness. In: *Administrative Science Quarterly*, 42, pp. 35–67.
- Weber, Max (1978): *Economy and Society. An Outline of Interpretive Sociology*. German orig. 1920. Berkeley: University of California Press.
- Weber, Max (2009): *The Protestant Ethic And The Spirit Of Capitalism*. New York and London: Norton.
- Weber, Max (2011): *Methodology of Social Sciences*. London and New York: Routledge.
- Whimster, Sam (2004): *the essential Weber*. London and New York: Routledge.
- White, Harrison (1981): Where do markets come from? In: *American Journal of Sociology*, 87(3), pp. 517–47.
- White, Harrison (2008): *Identity & Control. How Social Formations Emerge*. Princeton and Oxford: Princeton University Press.

- Wright, Eric O. (2013): Transforming Capitalism through Real Utopias. In: *American Sociological Review*, 78(1), pp. 1–25.
- Zelizer, Viviana. (2002): Enter Culture. In: Guillén, Mauro F./Collins, Randall/England, Paula & Meyer, Marshall W. (Eds.): *The New Economic Sociology. Developments in an Emerging Field*. New York: Russell Sage Foundation, pp. 101–125.
- Zelizer, Viviana (2011): *How culture shapes the economy*. Princeton: Princeton University Press.

Address:

Prof. Dr. Andrea Maurer, Trier University
Universitätsring 15, 54286 Trier, Germany
ORCID: 0000–0002-6178-6639
andrea.maurer@uni-trier.de