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FROM HISTORICAL INSTITUTION TO *PARS PRO TOTO*

The commons and their revival in historical perspective

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The commons are currently witnessing a true revival in many parts of the world. The term “commons” is hereby used in a context where citizens solve personal and/or societal problems as a group, and thereby also create a collective product or service, which they try to govern collectively. The historical background of the term commons, which forms the starting point of this chapter, will show that in the current context the term is used as a *pars pro toto*, whereby many more varieties of institutions for collective action are considered in a local context, on the basis of their common features such as self-governance, collective action and high member-participation. In this chapter we will generally use the term institutions for collective action (or ICAs) when considering institutional arrangements that are formed by groups of people in order to overcome certain common problems over an extended period of time by setting certain collective rules regarding access to the group (membership), use of the resources and services the group owns collectively, and management of these resources and services. Perceiving the commons as an institution for collective action is by now widely accepted. However, the usefulness of widening the time perspective, to include hundreds of years in our search for the holy grail of what makes institutions resilient, is often still underestimated. Commons-scholars such as Elinor Ostrom herself found it unlikely that the commons in a historical setting, taking us back several centuries, could be studied with the same depth as present-day commons. However, as we will demonstrate in this article, with the right methods and resources, the incredibly rich account of centuries-long successful resource management may deepen and possibly alter our understanding of sustainable cooperation fundamentally.

Paradoxically, whilst citizens and local governments in the Western world increasingly put the commons forward as an alternative governance regime for both public and private good provision, examples of commons in the developing world have been and are still under pressure to dissolve, in order to be replaced by a market-driven individualized use of land and resources. The latter process can be considered as an example of history repeating itself, though on another continent: most western commons have gone through a very similar process of top-down instigated dissolution of commons and varieties thereof in the 19th century, at the latest. Commons in England and Wales were already going through a dissolution process—also referred to as

“Enclosures”—from the 15th century onwards. The current “return of the commons” is however often seen as an entirely new movement, not taking into account the lessons to be learned from history. If history is taken into account in the present debate on commons, it is often used to provide an overly romantic picture of commons and their commoners, usually not going beyond anecdotal references. Current “application” of historical knowledge often lacks the historical nuance about, for example, the way in which commons dealt with inequality, and the dynamics in the importance of commons as a governance regime over time are taken too lightly. If taken seriously, the richness of commons history may offer a goldmine for those studying the commons, in particular for those willing and apt to use the commons in a nuanced and critical way, regardless their original disciplinary training.

Instead of providing a narrative history of the commons in general—an exercise that has been done elsewhere already extensively (though not exhaustively; e.g. De Moor et al. 2002)—or of some commons in particular, this chapter will provide a broader historiographical perspective by explaining why a historical lens is important to use when studying commons. Furthermore, it will provide insights into how we should perceive the dynamics of commons taking a longitudinal perspective and give some examples of the application of historical research methods that focus on that dynamic character of institutions for collective action.

Gaining deeper insights into the factors explaining institutional resilience of commons over the very long run and satisfactorily understanding the feedback mechanisms, synergies, and learning and adaptation processes underlying institutional resilience unavoidably requires a long-term perspective and, in turn, such a long-term approach inevitably implies the work of historians and historically-trained social scientists (Ostrom 2014; Laborda Pemán & De Moor 2016). As such this chapter should also be read as a call to historians to engage in the research field of commons in an interdisciplinary way, and also as a call to commons-researchers without a historical training to dig deeper and to use history not as a mere eclectic spicing up of their studies on present-day commons. Despite the many voices stressing the relevance of empirically well-grounded analyses on how collective action institutions evolve over time, stress on static approaches, attention to relatively short time spans, limited empirical evidence often derived from secondary sources, and methodologies not explicitly designed for long-run analyses have prevented scholars from embarking upon such an endeavour. It is precisely here where the work by historians and other historically-trained social scientists is highly relevant. Their use of primary sources and their focus on the long run allows them to fill many of the gaps observed in the previous generation of studies on institutional resilience. Despite three decades of intensive commons-research, our knowledge about how institutions develop and change over time still remains limited (Ostrom 2014).

Until the end of the 20th century contributions to the analysis of institutional change oscillated between sophisticated theoretical exercises and the in-depth analysis of a small number of case studies, mostly ignoring their long-term development. For a long time the work of historians also did not manage to get integrated into work on commons done in other disciplines. It mainly revolved around the issue of how the rich heritage of commons exhibited by Western Europe before 1800 impacted on its social and economic performance. Traditional views stressing the constraints that common land put on the efficient functioning of land markets only started to be contested in the 1970s and 1980s. A number of works not only began to question the supposedly beneficial impact of enclosures but also suggested that the prevalence of historical commons was fully compatible with economic rationality and social welfare (Allen 1982; McCloskey 1991). Only after this re-evaluation of the commons’ heritage of Europe began, did historians start paying attention to aspects that until then had been neglected, such as the origins of these collective governance mechanisms or their

functioning and evolution over time (De Moor et al. 2002; De Moor 2009). Since the late 2000s historical evidence has continued to grow and historians are now much more aware of the richness and diversity of commons across Europe (De Moor 2015). Notwithstanding the quantitative progress—in terms of the number of methodological studies—in multi-disciplinary approaches that incorporate longer time-frames, there is still a considerable gap to fill between disciplines using different time-frames.

Though the temporal perspective in this chapter is extremely broad—more or less the past millennium—the geographical scope is limited to mainly Western Europe. Western Europe forms not just the cradle of both commons-practice and of the historical political-philosophical discussion of commons' relevance for economy and society,¹ but also has been the most extensively studied. But even more so, understanding the European history of the commons is important since the geographical origins of the negative implications of commons that culminated in Hardin's work—though himself an American biologist—were found in Europe. Even before Hardin's publication, collectivities had been negatively associated with inefficiency and backwardness, most prominently in the work of 18th-century Physiocratic philosophers in France, and later on also in treatises written by the economist William Forster Lloyd, among others, in the 19th century. But as will be explained further, European commons' history goes back much further in time, all the way to the late middle ages, in times when commons were considered a solution, not a problem.

The long-term history of commons' evaluation gives us another reason why the historical approach must go beyond providing a nice narrative to current examples of so-called “new commons.” With many examples of commons that demonstrate a life-time of several centuries, this type of institution for collective action is an excellent example of a “resilient” institution, whereby a constant adaptation of the institutional design was needed to deal with the sometimes harsh conditions, in terms of climate, weather, political turmoil and demographic pressure. Notwithstanding the fact that we need to take into account that our current perception of the historical common might be biased by a lack of sources of commons with a shorter lifespan—due to a lack of archival preservation—the vast richness of historical material left behind by many commons gives us an excellent view of what it took of the commoners to deal with external pressures. The commons of historical Europe, and in particular their archival remains, give us a chance to understand how commoners managed to cooperate, as a collectivity, for the benefit of the collectivity. If we consider the vast challenges that lie ahead for the world population right now, commons' history may provide inspiration to find solutions for those problems that are based on the similar social dilemmas that also project long-term effects of their current behaviour on future generations. Understanding the dynamics of commons-governance over long periods of time may give us a better understanding of achieving resilience in the long run, which demands more than a regular check of a list of design principles. After more than 25 years of doing research on commons without much interaction between different disciplines, we need to start building more on multi-method comprehensive analyses based on multi-faceted theoretical explanations, that include long timespans (Poteete & Ostrom 2008). The historical examples we are about to discuss in this chapter demonstrate that, contrary to what late 18th century contemporaries and many after that believed, commoners were constantly adapting their institutions to the changing ecological, economic and political environment.

A bird's eye view on historical and “new” commons: “Waves of collective action” in the past 1000 years

Understanding the dynamics of small-scale cooperation within a changing environment represents a fundamental challenge for 21st-century scholars—with findings likely to have

immediate impact on the design of more resilient communities around the globe. As a consequence of the serious limitations exhibited over the past decades by market- and state-based alternatives and encouraged by growing opportunities for communication, the ability of individuals to self-organize and arrange the production and distribution of goods and services collectively has become one of the emerging features of society. A “wave” of new, collective initiatives taken by “ordinary” citizens has been emerging since 2005 across Europe, although countries’ activity may vary across sectors and through time.² Citizens are uniting to set up energy cooperatives across Europe, providing in some countries, like Germany, nearly half of the renewable energy (Morris & Pehnt 2012: 29); Alternative forms of insurance and care provisioning are developing rapidly.³ In many places where public goods are endangered, citizens collectively try to provide an alternative, sometimes in cooperation with local governments, but often without.⁴ The attempts of citizens’ collectivities or institutions for collective action (ICAs) currently emerging across Europe to provide public and private goods in various sectors are often considered as new and revolutionary. However, when we dive into long-term European history there seem to be more periods when organizations that thrive on collective action, self-governance and high member-participation were set up with rather similar institutional design as those we see emerging today.⁵ For the late Middle Ages this has been highlighted by various historians (Greif, Reynolds), and for some countries this has also been tested on the basis of a quantitative analysis. For the Netherlands, a “wave” of collective action has been described to emerge around 1200 (De Moor 2008, 2013: 12–14), when commons and waterboards in the countryside and guilds and beguinages in the cities were set up to regulate access to goods and services collectively among stakeholders. Rapid development of merchant and craft guilds, commons, collective irrigation systems, and other forms of ICAs has also been described for countries as Italy (Mocarelli 2008), Spain, Belgium (Soly 2008), and Germany (Ehmer 2008). However, if we consider, for example, the Dutch case again for the period after the top-down dissolution of guilds, commons and other types of institutions for collective action (18th and early 19th centuries),⁶ another period of accelerated development of organizations based on very similar principles surfaces. In the decades between 1880 and 1920 cooperatives were set up in farming, banking, and many other sectors to provide access to working material and capital and other benefits such as social security.⁷ Case studies and country-wide studies on similar historical forms of collective action elsewhere in Europe suggest that similar “waves” may have indeed existed throughout Europe in more or less the same two periods, but with a variety in appearance, depending on the local problems collectivities of citizens tried to address. In some countries, cooperatives appeared somewhat earlier. In 1844 the Rochdale Society of Equitable Pioneers in Rochdale, England, put down the so-called Rochdale principles⁸ (see e.g. Fairbairn 1994)—which have until today been perceived as the ideals that cooperatives should pursue in their operation, although many coops with their origins going back to the second wave of ICAs seem to struggle to honour these principles. Building on the same ideas, the first Swedish consumer cooperative was established in 1850 (Fjørtoft & Gjems-Onstad 2013: 583); the German Raiffeisen Bank developed in the 1860s, with many other countries soon to follow its example.

The current surge in ICAs has been attributed to market imperfections that arise after periods of accelerated development of the free market, in which privatization plays an important role (De Moor 2013: 16–18; Verhofstadt & Maertens 2014; Dedeurwaerdere et al. 2015). The first wave of ICA-formation was preceded by an accelerated development of the agricultural and urban labour markets during the Middle Ages (van Bavel 2007, 2011). Market imperfections also seem to have been the main stimulus of rural cooperatives in the 19th century, following a strong wave of liberalization and privatization since the middle of the

19th century. In historical literature, the rise of the cooperatives in agriculture in the 19th and early 20th centuries has been explained by the advantage cooperatives provide over private factories in reducing transaction costs with suppliers (O'Grada 1977; van Zanden 1994; Henriksen 1999; O'Rourke 2006).⁹ Many advantages such as scale, risk avoidance, and risk sharing are put forward, as explanation, though the primary cause should rather be considered the lack of solutions provided by the state and the market for the daily needs of citizens. An often referenced example of this is the development of the Raiffeissen across Europe in the second half of the 19th century, which offered to provide loans and savings facilities to farmers and other citizens living in the countryside who could not gain the trust of commercial city banks. The cooperative bank became a popular solution to this market failure, with many other types of cooperatives developing in other sectors (insurance, dairy produce, energy, etc.) as well as mutuals, which function along the same principles as cooperatives. Similar market failures, following the privatization of public providers in the 1990s and 21st century, as a consequence of the EU-policy in this domain, also seem to be the main drivers behind the current surge in the formation of new collectivities.

If we consider the meso-level, that of the organizations, we do need to acknowledge however that not all groups of users were in fact as successful in keeping their organization going in the long run, although long-term plans may have been made when the organization was set up. To a large extent the variation over time in longevity of the ICAs is related to the chosen strategy of dealing with the increasing scale of the individual institutions. If we consider again the Dutch case, there is substantial variation in terms of longevity of individual organizations both within each “wave,” as well as when both waves are compared. Previous in-depth analysis of cases showed, for example, how some commons survived only a century, whereas others easily surpassed 600 years (De Moor & Tukker 2015). ICAs developing in the second “wave” from the late 19th century onwards however were on the whole shorter-lived: of all cooperatives that emerged between 1880 and 1920 in the Netherlands, only one-fifth are still active today, while more than 90 per cent of the eastern Netherlands’ agricultural commons survived much longer, easily passing the 150 year mark. About 62 per cent of their urban counterparts (guilds) survived over 150 years, also considerably more than the cooperatives of the second wave (De Moor 2013: 16–18¹⁰). Although some may argue this could be a sign of inertia or a consequence of monopolization (Richardson 2001), longevity of an institution can be an indicator of the resilience of the governance regime in place, or of the ability to recover from setbacks, to adapt well to change, and to keep on going in the face of adversity. Longevity in itself is recognized by scholars in business as an advantage since an older institution on the whole tends to be more efficient and has been implicitly considered by commons-scholars—including Elinor Ostrom—as a valid indicator for a robust/resilient institution, though often not in relation to the governance regime, but to the ecological situation of the resources held in common.¹¹

Longevity as an indicator of resilience has been approached so far mainly from the institutional perspective. In particular the Bloomington school of thought influenced by Elinor and Vincent Ostrom stressed that a good institutional design, including a specific combination of rules (the famous eight design principles of Ostrom 1990: 90) could have a positive effect on the cooperative behaviour of members and consequently also on the resilience of ICAs.¹² Much of the Bloomington school literature reacted against the assumptions about human cooperation as laid down by Garret Hardin in his 1968 *Science* article, the “Tragedy of the Commons.” However, although scholars from the Ostrom school have indeed been able to identify what can make an ICA long-enduring, most of the (predominantly non-historical) studies on the resilience of ICAs have considered institutions with a relatively short life-span (e.g. of less than a century), and as such these cases miss the variation needed to understand why some live (considerably)

longer than others. As explained above, a longer time perspective can contribute considerably to our understanding of the dynamics of institutional change (e.g. Lana 2013, 2014a, 2014b; Lana & Iriarte-Goñi 2015) but also demonstrates that a focus on institutional development alone is insufficient to understand why institutions which all have a very similar institutional design still tend to differ in “age at dissolution.”

Building a resilient organization is a time-dependent process, of which the impact can only become visible if considerable time has passed. Setting resilience as a goal for institutional developments today will, given this time-dependency, demand a longitudinal perspective. Digging deeper over time delivers more insights into the evolution of design principles, under stress, and also into the balance between various interactions between design principles. A third reason why the history of commons is important is that it brings to the fore forgotten tactics and strategies developed by commoners in the past. The need to think in a collectivity has, in many western countries, been set aside as unproductive, or has been—partially—taken over by the providers of the welfare state. Reciprocal thinking, at the basis of any form of institution for collective action, is not an easy or straightforward “mind-set”: it demands intensive interaction, thinking ahead, and being able to build on a memory of previous actions, of which some may have positive outcomes and others not. Creating rules that take into account “best practices” of the past, but in a new context, and take into account new members of the collectivity, demands creativity. This “historical creativity” will be addressed in the third part of this chapter.

Besides these fundamental reasons why we should be taking longitudinal change into account, change and time-lags between a commoner’s contribution to and his appropriation from the commons are other reasons why historical development may give us a better understanding of commons. One of the major reasons why we find understanding the collectivity as a functional unit so hard is the difficulty in uniting the permanent care for the collectivity versus the variety in time-lag between investment and individual benefit for the members. Economic theory tells us that we should not expect individuals to invest in collectivities. Individuals should not be expected to accept collectively made rules that may affect their individual (short-term) benefits, let alone adhere to them. This is based on the expectation that individuals are not capable of rationally arguing for the collectivity rather than their individual benefits. And yet, in reality, both historical and present-day, we see that individuals are in fact capable of doing so.

Framing the commons in a dynamic way, allowing for longitudinal studies

As mentioned earlier, resilience has been a major issue in the study of commons, and the long-term dynamics of commons in the past may be very helpful in contributing to achieving a resilient organization. However, for the analysis of a complex governance system whereby instead of one party deciding on resource use and management (the state or a private owner) multiple users are deciding on a collective resource involved, we need a framework that allows us to identify the factors affecting the willingness of members to *continue* contributing to the commons over substantial periods of time, preferably covering several generations. This is however a complex task, especially if we take into account the changing contextual factors that may have influenced commoners’ willingness and capacity to cooperate, including factors such as demographic change, economic hardship and political turmoil. In the model below, we split the commons as a governance regime into three components: resources, users and institutions.

In literature the resources commoners deal with are also referred to as common pool resources. In some cases the resources are also used as a *pars pro toto*: it is assumed that the resources as such are the commons. However, as already stated earlier, the commons are a concept that refers to a governance regime, whereby a group of people holds a collective property and needs to

decide collectively over the common pool resources. In order to make sure that members of the group act reciprocally, the members have to make sure everyone that is part of the group gets sufficient benefits out of the collective resources. If done on a continuous basis, this leads to the formation of an institution, a Common Pool Institution, necessary to make sure that rules are developed and adapted over time, to the changing environment. These multiple interrelated factors make the study of the internal functioning of commons complex: whereas in private or public property arrangements decisions are made by individuals or the government, in an ICA a collectivity of entitled users may be involved in both the use of the benefits and the design of the institution to regulate use, access, management, and governance of these benefits. With ICAs relying heavily on group norms and reciprocal behaviour between their members, the interaction between users, resources and institutions is all the more important to understand periods of crisis and dissolution of the commons (Bruynis et al. 2001; Birchall & Simmons 2004; Jussila et al. 2012). In Figure 24.1, all three dimensions that together constitute the governance regime are shown. Bringing together these dimensions, and visualising their interaction, is important, as the current debate over commons often tends to focus on one aspect in particular. Figure 24.1 depicts the three dimensions (institutions, users, and resources) of commons as governance regimes established by a group of resource users themselves to regulate and provide order in the use and management of a common-pool resource, but also to prevent its over-exploitation and guarantee its sustainable provision over time. As it becomes evident from the self-governance and collective features, such a governance model differs markedly from a state-driven organization as well as from market-based appropriation. Among the challenges usually faced by this governance regime, two are particularly important. On the one hand, the common-pool nature of the resource requires from the commoners constant assessment and re-design of the rules in place in order to balance individual incentives and group objectives. On the other, the institutional arrangement must be permanently adapted to the changing environmental, economic, and political environment in which it is embedded. As such we need to especially focus on the interplay between internal (i.e. the incentives embedded in rules, the commoners' motivation, and the behaviour resulting from the interaction between rules and motivation) and external (e.g. environmental, political, demographic, economic, and technological forces operating outside the domain of the institutional arrangement) factors, and on how this interaction explains the resilience of the commons over the long term.

The risks to which commoners were exposed historically were manifold, though the actual effect they had in practice remains understudied. But we can hypothetically describe a number of potential effects external shocks may have had on the commons and their users. Some of the most straightforward external threats to commons in the past are related to climate and weather-related hazards, ranging from snow and hail to storms and floods. Such events may have an effect on the accessibility of grazing facilities on the commons, though we would not expect an effect on harvesting of subsoil resources, unless, for example, in the case of a flood which makes the whole area inaccessible. In terms of the use of the commons, such events may result in changes in the rules that prescribe a reduced number of cattle each member can let graze on the commons, or a belated opening date of the common grazing facilities. The effect on agricultural production in general may be that the number of cattle that can be fed during winter and the resulting number of cattle allowed on the commons (referred to as the practice of "levanchy and couchancy") is altered. In terms of access rules, commoners may decide that if the conditions/consequences of bad weather are severe, a complete restriction on access to the commons could be ordained, for all commoners.

In case a cattle disease or plague takes place this may have other effects on the commons. If the commoners themselves suffer severe cattle loss, this may affect access rules: in case of potential underuse, the commons may be opened to non-entitled users. It may also affect management

rules: in order to limit the spread of the plague, cattle may be concentrated in a particular part of the commons and isolated from other cattle populations. Demographic shocks may also lead to substantial changes in the management. The demand for use of the commons' resources may alter substantially, demanding a change of the access rules. If the population grows rapidly, supplementary restrictions on access might be introduced, in particular rules related to access of heads of household (and thus possibly related to marriage-based restrictions to access). Similarly, access rules might be loosened, in case of population decrease/shock due to disease. Similar restricting or loosening of the rules may take place in relation to use, in terms of maximum number of resource units allowed per user.

Although one may probably assume that warfare and political turmoil may have similar effects on the rules as a population decrease, there are in fact more effects in other domains to be expected, assuming that warfare would involve primarily heads of households. Warfare could substantially affect the regularity of meetings and as such demand an adjustment of the governance rules. Heads of household would be absent, which would make meetings of the governors of the commons less easy to organize, thus leading to an effect on the governance and management as a whole. This in turn may warrant more flexibility in rotation schemes and taking up managerial roles. Through all of these proposed potential causal relationships between external shocks and crises and rule changes, which may not take place for each and every commons, they clearly present the multiple effects various external factors may have on the commons, the commoners and the resources they govern. It also demonstrates that multiple dynamics are at hand, potentially involving changes in various rules designed to govern the commons.

The challenge for the members of a self-organizing institution like a commons is to keep the system in balance, regardless of external factors, for example, to keep the utility sufficiently high even when the supply of resources is shrinking or when the group of users is growing. A change in one of the domains may have a clear influence on the other domains; if, for example, a group of users grows this may lead to lower equity and put pressure on the group to change the institutional design. Also, a decreasing supply of resources may affect the rules that constitute the commons as an institution. Understanding long-term dynamics thus means not just taking into account the changing context but also changes in both the resources and in groups of users over time, as ethnicity, religion, wealth, occupation, dependency on resources, and other factors may affect the individual members' willingness to contribute to the collectivity. In the case of a pasture commons, impoverishment of the commoners may lead to a situation whereby some of the resources commoners are entitled to use are no longer useful; if some of the commoners no longer have the cattle to graze on the commons, the utility for at least part of the members will decrease substantially, which in turn may affect their willingness to act reciprocally. A lack of utility may encourage them to freeride or at least refrain from contributing to the collective good.¹³ In organizations relying on self-governance, where members can influence the governance of their collective resources, this may in the end also lead to a change in governance: commoners may collectively decide to dissolve their organization as they do no longer find it useful to invest in it.¹⁴ Similar developments may take place if commoners (feel they) are insufficiently involved in the decision-making process; they may perceive—justly or not—the decisions taken as less fair to them individually. In social science literature it has been amply demonstrated that a governance regime that is perceived as less equitable also may lead to defective behaviour,¹⁵ though such studies often are only snapshots and limited in time-perspective. The historical commons were constantly challenged to involve their members in the decision-making process, but also saw their groups change in size and composition. An increasing group of members may have a positive influence on the total amount of capital available within an ICA but may have a negative effect on the social control as large groups make it harder to recognize members

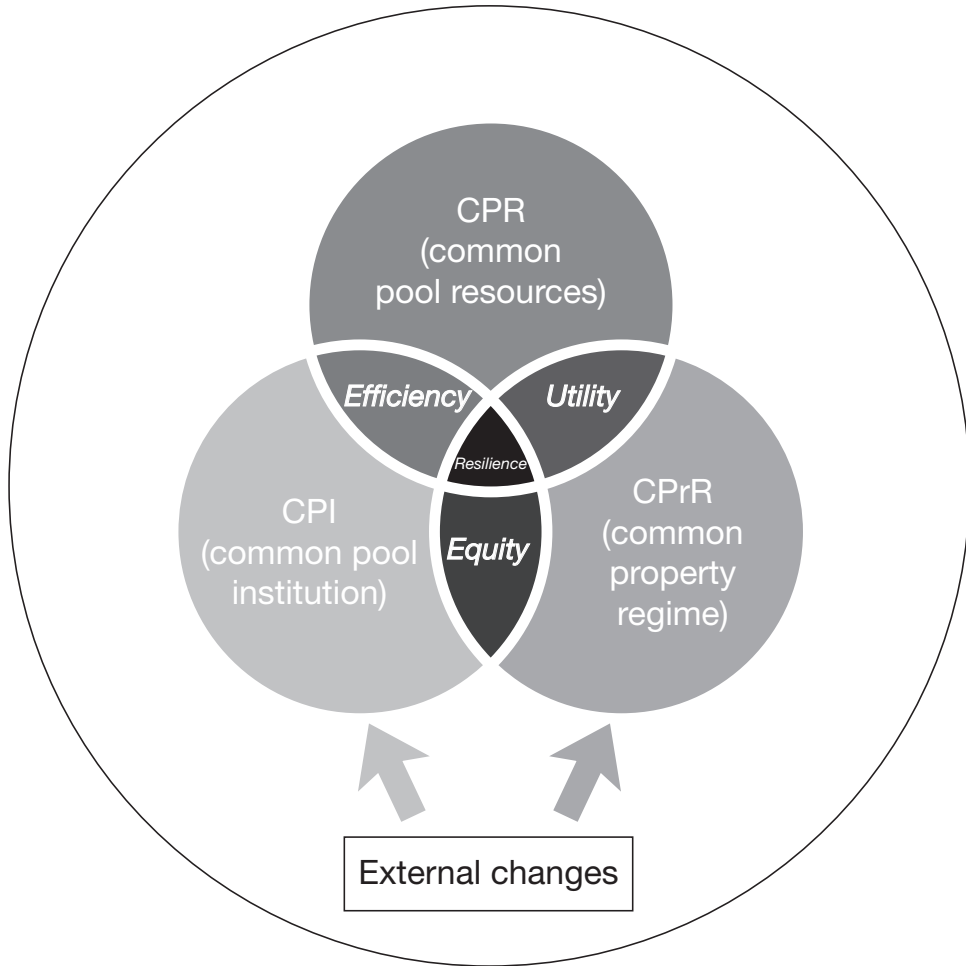


Figure 24.1 Micro-perspective: how to achieve resilience on the commons?

of the group. In social science literature it has been described that cooperative behaviour is promoted if the other people can observe one's personal choice behaviour (Jorgenson & Papciak 1981), and that this "social control" mechanism may be responsible for the fact that people are more willing to work hard under conditions of high visibility than in more anonymous settings (Latané et al. 1979). All these elements demonstrate that since the members of the group may change, as well as the needs and expectations of the individual members towards the ICA, the resilience of an institution cannot be understood if the interaction between the group dynamics, the institution and the resources an ICA is not studied over substantial periods of time.

Better understanding the mechanisms behind ICAs—and commons in particular—and how not only institutional design but also group dynamics may affect the longevity of an institution and how these interact, is of great importance to the current societal change we are undergoing. The answers we may find in the historical analysis, in combination with the efforts put into knowledge dissemination and dialogue with stakeholder-citizens, should contribute to building better ICAs that can—as in early modern history—survive over many centuries.

Only recently, attempts to empirically understand the dynamics of institutional change within a commons setting in the longer run have started (De Moor 2015). An international team of historians recently presented unprecedented data recording historical regulations for 25 European commons over 7 centuries (De Moor et al. 2016). In total, the database contains over 5000 detailed rules defining these institutions (e.g. regulating resource use, management, and sanctioning) and records the changes made during these centuries. Studying the regulation on the micro-level is not new in itself, and in fact forms the basis of the work by Ostrom and her colleagues, but the historical approach allowed an entirely different spectrum of research possibilities, though without the opportunity to work with living interviewees.

The richness of historical data offers far more insights into cooperation within the commons than what can be comprised in one single chapter, so the focus will be here on some specific aspects of commons' functioning, related to each of the three parameters that we introduced earlier that affect resilience.

Utility: avoiding resource use beyond what is needed

Hardin's classic story was based on a number of premises, one of them being that use of a collective resource would invariably lead to overuse by the *homo economicus*. Humans are tempted to commercialize, and hence lead to overexploitation of their resources. Whereas humans might feel temptations to do so, history shows us that collectivities of users find ways to institutionally limit the commercialization of their resources. What is most interesting about the rules formulated to achieve this is that commercialization of goods is often not directly addressed, but indirectly, by addressing the drivers that may lead to commercialization.

Equity: involvement of users is prime to achieve cooperative behaviour

Self-governance is usually presented as one of the most important features of institutions for collective action. But who is involved in that governance? And how democratic is the formulation of the regulation? Equitable governance is hard to track historically, but its importance surfaces when looking, for example, at sanctioning systems. Many experimental studies have tried to establish what an effective and efficient sanctioning system should look like by trying to determine the "right" level of a fine, to what extent people are willing to punish each other, what the structure of a fine should be (pool punishment or not; the choice between "carrots" or "sticks") and to what extent external enforcement can be efficiently used to implement sanctions in an effective way. Elinor Ostrom and others argued that specific types of sanctioning—such as graduated sanctioning—can have a preventive effect as they also serve as a warning to current defectors of "worse to come" (Ostrom 1990). Nevertheless, the option to use tools other than sanctioning to prevent freeriding is hardly ever seriously considered in the literature, although it is generally acknowledged that sanctioning can be a costly affair. However, when we explored the use of sanctioning in a number of very long-lived commons in the Netherlands (De Moor & Tukker 2015), with longevity varying from 236 to 695 years of documented existence, the conclusions were rather surprising. Archival sources allow us to retrieve the regulation devised to control who the commoners were (access rules), how the use of their common resources was regulated (use rules), how access and use were managed (management rules) and how the governance of the institution as a whole was arranged (governance rules). We started from the premise that both rule-making and sanctioning are costly affairs, in particular because the rules needed to be discussed and agreed upon by the whole group of members. Therefore, we approached the complete body of rules found per commons as the

“total effort” of a group of commoners. We used this concept as a way to link the rules and accompanying sanctions to the longevity of each of the cases.

All commons in our case study analysis made frequent changes to their regulation system, although some more often than others. There was little difference between the cases in terms of the effort they spent on adjusting the rules—on average, 61 per cent of the rules were adjustments to previously mentioned rules. This and the continuous effort to adjust their rules show that all cases were essentially “dynamic.” But still, their longevity varied substantially. This can be explained by several factors. First of all, it appears that sanctioning was not a decisive factor in the longevity of these commons. Rather the contrary seemed to be true: the longer-lasting cases seem to have had a lesser need to come up with sanctions for their rules. Second, it seems that most of their rule-making effort went into creating rules to ensure a well-functioning management. There is also a clear difference in terms of the repetition of the rules required: longer-lasting institutions needed to repeat less, and instead concentrated on adjusting the rules. Taking these results together, one might claim that the secret of a long-lived institution seems to be ensuring that people meet frequently so that they “internalize” new rules and adjustments easily, rather than threatening people with sanctions. Whenever commoners wanted to change the rules, they had to convene and approve of the changes. If this is done frequently, commoners will also be more frequently confronted with their moral duty to behave well towards others than if they meet only once in a while. High levels of participation and effective involvement of the users in the governance of the institution, consequently, may have been more important for the longevity of the institution than sanctioning.

Future research on the basis of commons’ regulation may help us to disclose the mechanisms behind institutional change in the long run more clearly. Using historical data may help us to unravel why and how institutions have been modified in response to changes in their social and natural environment. It may also tell us whether there are typical developmental paths that long-lasting institutions take, using a perspective similar to the evolutionary process leading to adaptations (Richerson & Boyd 2005; Ostrom 2014), focusing on the relationship between the different systems of rules historically recorded and analysing their development over time.

Conclusions

The commons of today differ from their historical counterparts in two major ways. First, the context in which they develop is fundamentally different, with new technologies and ways of communication influencing interaction among users/members and with other needs and desires of the latter. Second, the resources that are governed in institutions referred to as “commons” are substantially different from the agricultural context we associate with the historical commons. However, when it comes to the behavioural aspects of those setting up, using and managing resources collectively, not that much seems to have changed. Throughout history we see that through self-governance and collective action citizens try to fulfill their needs and desires. If we compare the waves of collective action described earlier, we do see some differences that deserve further research. Taking the bird’s perspective, looking at the long-term development of institutions for collective action in the long run, we may say that institutions for collective action have increasingly become mono-purpose organizations. Whereas citizens today choose to join an energy coop, a care coop and many other types of coops in order to fulfill their daily needs in a collective way, the ICAs of the first, medieval-early modern, wave combined many different purposes from those related to their occupation to care and even charity. Though indeed this is partly related to changes in production and consumption patterns, combining multiple purposes does allow ICAs to balance more easily different types of

demands from their members. Offering multiple services to members may also help to prevent freeriding as members become dependent on various needs through the same collectivity. Having to participate in several different collectivities reduces the opportunities for using reciprocal behaviour as a complementary incentive.

To conclude, there are some thoughts on the future of the commons as a governance regime, based on the historical analysis of commons in the European past, which we need to keep in the back of our minds when studying the commons in the present day. Seen from the historical perspective, the use of the term commons is basically a *pars pro toto*, as it refers to many different types of collective resource management, on various levels. However, the constant “stretching” of the term that has taken place the past few decades leads to a number of paradoxes, which keep coming back in the debate without being resolved, or even properly acknowledged. First of all, current day proponents of developing commons as an alternative governance model often see opportunities in the domain of public good provision, now that many welfare states are increasingly trusting the market to take over their role. However, the original forms of institutions for collective action were not set up to provide public goods. In many cases there were indeed activities that came to the benefit of the whole local community (mainly in the form of poor relief activities supported by commoners), but it was not its prime intention to do so. Second, increasingly commons are also expected to solve resource management problems on a much larger, even global scale. The term commons itself is on the one hand increasingly applied to resource management that goes far beyond the local level, with references even to global resources, but on the other hand the features of the resources managed as commons have been strictly local. It is rather logic that out of the research done on the history of commons lessons can be drawn that are restricted to local resources, but the potential of scaling these lessons up to deal with global resource issues is far less obvious. Third, in the current political philosophical writings, the commons are often seen as a constant factor throughout history without much fluctuation in their presence or importance. “Commons have always been part of our history” is, however, a false claim. Throughout history we have seen periods in which new commons emerged more rapidly than before, but we also see periods when they have been dissolved, mostly under external pressure orchestrated by national governments. History does show that regardless of the attempts of governments to eliminate forms of self-organization among citizens, the latter will keep doing so. The degree to which forms of cooperation are institutionalized is, however, variable throughout time.

This chapter has shown that the new wave of institutions for collective action builds upon an extremely rich heritage of collective resource management in the past centuries. The ability of such small-scale, self-governed governance mechanisms to deliver satisfactory results in the environmental and social realms has attracted the attention of both academic and policy-making circles—which have gradually shifted from dismal views on collective action (e.g. Hardin’s famous “Tragedy of the Commons” (1968) or Olson’s (1965) analysis on the logic of collective action) towards much more optimistic assessments in which sustainable cooperation is not only possible but also socially beneficial (e.g. Ostrom 1990). The speed of technological, economic, political, and environmental changes in our current societies and the need of anticipating reactions to those changes makes it indispensable to gain deeper knowledge about the mechanisms behind the processes of institutional change, resilience and failure of the commons—all of them processes unfolding over the (very) long term. Given the growing importance of collective governance regimes in our 21st-century societies, both across developed and developing regions, and the rapid pace of change in the surrounding environment, a better understanding of these issues is likely to provide scholars, policy-makers, and citizens alike with relevant insights about how to design and adjust institutions that are able to simultaneously deliver economically efficient, socially inclusive, and environmentally sustainable outcomes.

Notes

- 1 See amongst others the discussion on the commons in in particular the philosophical tractates of the Physiocrats in the 18th century, which created the foundation for the top-down dissolution of the commons in in particular continental Europe.
- 2 The analysis by De Moor (2013: 10–11) shows a particular leap forward since 2005, with dozens of new cooperatives formed every year in particular in professional services, industry, energy, transport, and care.
- 3 See www.accessstoland.eu/, accessed 20 October 2018.
- 4 See for example the Bologna “Regulation on Collaboration between citizens and the city for the care and regeneration of urban commons,” adopted by the city of Bologna in 2014 (Collaborare è Bologna 2014).
- 5 Some current initiatives also like to promote historical parallels between their own activities and organization today and those organizations they consider their predecessors, as is visible in the name they choose. E.g. the *Energiemarkte* (“Energy common”) in Haarlose Veld (ROM3D 2016) combines references to the historical use with generating renewable energy through landscape.
- 6 The ICA-concept has in the meanwhile also been applied to other historical phenomena, e.g. communities of Dutch maritime transporters (Scheltjens 2015).
- 7 In the same period, we also see the development of other forms of collective action such as the labour unions and mutual insurance funds (De Moor 2013: 16–17).
- 8 Today the International Cooperative Alliance still considers—an adjusted version of—the Rochdale principles as their guiding principles (International Cooperative Alliance 2018).
- 9 For a recent confirmation of this theory see the article by Koen Frenken (2014) who demonstrated this with a study using data on 1130 dairy factories in the Netherlands that cooperative factories indeed performed significantly better than private factories.
- 10 See De Moor (2013: 16–18); analysis based on data from project “Data Infrastructures for the Study of Guilds and Other Forms of Collective Action” (Institutions for Collective Action 2012).
- 11 See her work on long-enduring Common-Pool Resources, as e.g. *Governing the Commons* (Ostrom 1990).
- 12 In particular since the Nobel Prize in Economics was in 2009 awarded to Elinor Ostrom, who wrote the seminal *Governing the Commons* (see also previous notes).
- 13 As demonstrated for a Flemish case study at the end of the 18th century (De Moor 2010).
- 14 On the same Flemish case studied by De Moor, the increasing dominance of the passive users over the active ones lead to a substantial change in governance, and nearly to the dissolution of the common (De Moor 2015: 139 ff).
- 15 For a literature review, see Diekmann (2004).

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