Introduction

For its one hundred twenty-fifth anniversary in 2005, the journal *Science* considered the question 'How did cooperative behavior evolve?' to be one of the top twenty-five issues for scientists in the future to solve (Kennedy and Norman 2005, 75; Pennisi 2005, 93). This question has puzzled scientists from many disciplines for ages, including Charles Darwin. Darwin himself was intrigued by his discovery that, although humans seem to be 'programmed' to fight other humans to survive, humans *do* search for cooperation with others, precisely as part of this survival strategy.[1] Thus, cooperation should be considered one of the distinctive features of humankind. What is more, humanity needs cooperation to survive. Clearly, this was a conundrum for Darwin. His confusion becomes even more understandable in its contemporary context: his *On the Origin of Species* (1859) was written during a period when liberal thought received broad political recognition. The individual became the central unit of society; in European-wide political and intellectual circles, private property was increasingly considered the most ideal way of governing natural and other resources. During the eighteenth and nineteenth centuries, many aspects of western European society changed fundamentally. One of those changes was the abolition of (legally recognized) common-property rights, which in itself was related to fundamental social and economic shifts in society.

Darwin was living at a time when the rights of communities were gradually (and sometimes rather abruptly) replaced by more rights for the individual, though not necessarily for all individuals. Whereas most villages had held at least part of their land in common for centuries for its use by villagers, national governments now decided that these lands were to be

[1] This conclusion has meanwhile been confirmed by the many cooperation experiments conducted by both economists and sociologists (see for instance Jager et al. 2000).

sold and split up into separate units. This was to benefit the nation as a whole, since the establishment of private property on these previously commonly held lands was expected to encourage villagers to invest more time, money, and effort in their land, presumably leading to a rise in land productivity. Witnessing a dramatic increase in population and industrial development, governments welcomed growth in their country's agricultural output. Despite this theory behind the politics, in practice most of the land ended not in the hands of industrious and hard-laboring farmers, but in those of wealthy investors who lived in nearby urban centers.[2] But even they, working with the best and most expensive fertilization methods, often could not achieve the desired increased productivity. Apart from the few commons that had survived the liberalization wave that swept through Europe during the nineteenth century, most villagers were left empty-handed. They lost not only a means of income, but also part of their community and the invisible bonds that working together from generation to generation created among community members. Commons had, as will be explained, a primarily economic function, namely, that of sharing the risk of relying on a resource for which the production – and thus the income – was unreliable. Besides this, however, the commoners also found in the common a social welfare system – albeit not for everyone – and a source of social capital.[3] The long-standing history of many commons in Europe shows that cooperation and reciprocity were the binding agents for those who used the common. Without cooperation, the common land was bound to be over-exploited; the commoners were very aware of this and showed this awareness in their daily and long-term commons management. It cannot be denied, however, that formerly enthusiastic participants can cease to cooperate, or that non-entitled users may try to encroach on the resources of others. To prevent this, commoners started to devise autonomously a body of instruments and mechanisms to enable their common usage system to work. Some of those tools were used to prevent abuse of the use-rights; others were implemented when the harm was already done (i.e., to punish abusers). These instruments were not always used correctly, nor should we present the commons as a paradise-like pasture, but in many ways the common represents the drive for cooperative behavior, with its own peculiar twists and turns.

Over the past decades, scholars have shown that owners of collective resources were capable of limiting the behavior of others to achieve a better common output. The historical commons that are the core example of

[2] See, e.g., the dissolution process in the Campine area of Belgium (see, e.g., M. De Moor 2002; 2003a).

[3] The word 'commoner' in this chapter is used as a reference to a person who has use-rights on a common, not as a reference to 'common folk'.

institutions for collective action in this book demonstrate a high degree of such self-governance by rules that were self-restrictive and self-sanctioning if such rules were not followed correctly. To some extent, self-governance was – in the absence of a well-functioning state and market – the only type of governance to which farmers had recourse. Considering the present-day condition of both state and market, and the urgent need for new governance models to safeguard the world's natural resources, the historical commons can provide us with inspiration on future governance models for natural and other resources.

What is more, the longevity of commons as institutions for collective action assures us of the means to study successes, crises, and failures of institutions for collective action, and can help us to understand which changes in society affected the commons and how commoners reacted to these changes. The history of the commons offers an opportunity to study such dynamics of cooperation over very long periods of time. Cooperation is not just a single act; it can also consist of a large number of repeated acts among many people, often over different consecutive generations. People can thus exert their commitment over time, which can result in resilient institutions that are sufficiently robust to deal with shocks and crises in several domains of society. Such resilience can ensure stability in societies, which in turn can create good environments for social and economic progress. In order to adjust and adapt to change in society – be it of an economic, social, or political nature – the repertoire of instruments and mechanisms of those cooperating must have been considerably large and adapted to local circumstances. Every historical common was a local institution, usually not larger than a few hundred hectares (depending on the region), meaning that whatever decision was taken, it had to reflect local conditions. Thus, rules needed to reflect local needs of both resources and users.

The beginnings of European commons are to be found in the second half of the Middle Ages. At that time, from about 1000 AD, Europe went through a remarkable social and economic development, and one of its key characteristics was the institutionalization of collective action. What is remarkable about the late Middle Ages in Europe is that, rather than solving problems exclusively within the family or within the clan, people started to make alliances with others who followed a similar course in life, mainly people with the same occupation. The household, rather than the family, became the central unit of decision making. Elsewhere, beyond the borders of northwestern Europe, the family remained the most important unit of decision making in various spheres of life. During this period and in this particular area, the idea of an interest group was born and spread among

different strata of society, in the countryside as well as in urban settlements. This development and its practical implications for everyday life were remarkable for several reasons. First, it was remarkable from a global history perspective with western Europeans starting to follow a divergent path from the rest of Europe, and, by extension, from the rest of the world. The formation of commons was merely one form of collective action that could be found in Europe. In addition to the commons in the rural areas, guilds, fraternities, and communes developed in the urban areas as examples of this new trend. Outside of Europe, such alliances also developed, but often much later and at a much slower pace.[4] Such a parallel development of different types of collective action shows that these were part of a large wave of collective action that swept through Europe. Like the wave of liberalization that swept through Europe in the nineteenth century, the same area had gone through a process of institutionalizing collective action in a much earlier period. These developments are not necessarily antithetical to one another; both are part of the emancipation of the individual: first from the family ties, and later from other collectivities. Taking into consideration Darwin's conclusion that humans are essentially social animals in need of one another[5] and the present--day institutional revolution, it seems that the collectivity will always remain a functional and necessary form of organization in human societies.

Moreover, the formation of institutions for the use and management of common property may seem remarkable and unusual from a present-day perspective, in particular given the current primacy of private property. After centuries of common property practice, the functioning of commons was questioned as early as the middle of the eighteenth century. The need to feed the increasing population required greater land productivity. It was believed that commons halted development. The same rhetoric was applied to other institutions, such as the guilds: they were supposed to halt the development of new technologies and economic growth. For centuries, despite some conflicts, the common-property arrangement had in general been considered a good and satisfactory way to manage natural resources. Under the changing circumstances, the future of the commons became uncertain. This privatization discourse is still alive, and it has been and continues to be translated into various political reforms we have witnessed

[4] See, e.g., the work by Christine Moll-Murata on the development of Chinese guilds. These were not consolidated until the seventeenth century and reached their full development by the nineteenth century, a period when Europe had already eliminated guilds (and commons) in favor of the rule of private property and the market.

[5] The idea that humans are social animals starts already with Aristotle and his novel idea of 'political animal' (*zoon politikon*) (Kullmann 1980, especially pp. 425 ff.).

throughout the 1990s.[6] At the moment this course still affects our view of communal resource management in a negative sense. The simultaneous rise and demise of commons, guilds, and other forms of collective action shows that recognition by the higher authorities is of essential importance to the good functioning of institutions for collective action.

Being a historical study, this book focuses mainly on a historical period, one when the drive for continuity by the commoners conflicted with the desire for change by local and national authorities. For centuries after the origination of commons, the commoners lived more or less in accordance with the rulers over the division of the use of the common, whereby local lords reserved some of the resources for themselves – such as the right to hunt on the common land – and left the daily use of the land for pasture, peat digging, or for wood (as building material and as fuel) for the commoners. The period 1700–1900 starts off with relatively few internal or external changes, thus giving us an idea of how the common may have functioned in the centuries before that more turbulent age, starting from the middle of the eighteenth century. From then on, governments began gradually to impose legislation on the commons, and with the introduction of the new civil code book in 1815, the government – both on the local and the national levels – also started claiming the land as municipal property. In the area where the case study of this book is located – ruled first by the Austrians, then the French, and then the Dutch, before Belgium became a nation state in 1830 – the government tried to dissolve the commons in a nonaggressive way, but after achieving little success, new and more aggressive techniques were used to turn what was collective into private plots of land. By studying the common's history, covering over two hundred years, we can see the effect of societal and political change on the common, and how a group of commoners adjusted its governance system to these changes. Many changes that affected the composition of the group of commoners will be taken into account here – not just changes in the government, but also population change, economic change, and changes in the social structures –, as all factors may have induced change in the common's management and use.

Although the effects of the liberalization wave in Europe will also be discussed, the core of this book is devoted to understanding long-term cooperation on another level, from within the institution: that is, from the perspectives of those who were involved in the daily functioning of the commons. As was noted in the extract from Axelrod in the epigraph, cooperation is not necessarily a given for people, who are – so it is

[6] See, e.g., the works by Stiglitz (2002) and Easterly (2006).

believed – essentially selfish. There must be good reasons to share property, to work together towards a common goal. In order to understand the motives for cooperation or defection, it is possible to follow different research strategies. One would be to compare the reactions of people to different situations in an experimental situation, a method often applied in experimental sociology, psychology, and economics.[7] In the past, such research has revealed important aspects of human behavior towards cooperation – for instance, about the importance of group identity. These experiments have revealed, among many other things, that subjects are more willing to cooperate in a group if they are identified as members of that group. A sense of belonging thus seems to influence the degree of reciprocal behavior. Another avenue for understanding cooperation is through field research and analyzing in situ the behavior of individuals, in particular those who are part of groups that have a common objective, for example, cooperatives or village communities that have land in common.

None of the approaches – from field study to experiment – is applicable to historical research that goes back more than a century while one of the central issues that researchers on cooperative behavior are trying to solve is exactly how to achieve durable cooperation over long periods of time. Many examples can be found in Europe and elsewhere of institutions for collective action that have lasted for several generations, surviving in many cases for centuries, thriving on cooperation and reciprocity. In European history the commons in all their varied forms can serve as an excellent example of resilient institutions. Those commons, in particular the commoners who managed and used the land collectively, form the central subject of this book. Notwithstanding the large body of literature on the Enclosure movement in Great Britain (see, e.g., Neeson 2000; Shaw-Taylor 2001a; Shaw-Taylor 2001b; Tan 2002; Winchester 2002; Hoyle 2010)[8], surprisingly little has been written on the actual functioning of commons in historical perspective. And even more surprisingly, the lessons learned from other disciplines on the basis of experiments or field research have only recently and gradually been incorporated into historical studies on the commons (Lana Berasain 2008; Rodgers et al. 2011, 11–3 and passim). None of the methods mentioned thus far is possible if we want to study cooperation and collective action over the long term (i.e., for several decades or even centuries). But that does not mean that conclusions drawn

[7] For an overview see Van Laerhoven and Ostrom (2007), and for many other examples see Poteete et al. (2010, 141–214).
[8] A clear and concise description of the (often confusing) concept of enclosures and the process it entails can be found in Hoyle (2010).

from these research methods (group identity, role of the individual, etc.) cannot be integrated into studies using methodological means for long-term studies.

A great advantage of historical research is related to the dilemma mentioned in the title of this book, which refers in the first place to a social dilemma as the core concept, in various forms, in commons studies and any study that deals with individuals who are weighing short-time private/individual interests against long-term collective/group interests.[9] Although such dilemmas contain an essential 'historical' component – whereby the collective interest is far away in time from the individual benefits – most studies dealing with social dilemmas concentrate on the *hic et nunc* choice behavior of individuals, and cannot, usually due to the nature of the methodology they employ, offer any certainty to the individual participant (e.g., in experimental studies) that the future collective outcome, whether positive or negative, will really take place. As much of the studies on contemporary commons and social dilemmas focus on the level of the individual actor, I will also present detailed research on the level of the individual commoner (in particular through a detailed case study), but can, thanks to the historical approach, unravel the incentive structure that was put in place by the commoners to solve social dilemmas over a longer period of time.

However, the methodology used by disciplines outside of history often does not allow inclusion of circumstantial factors, which go beyond the individuals' immediate wishes and needs, that may have influenced the choices commoners made. The difference between historical research and the many other methods that can be applied for the study of contemporary commons is the possibility to relate – post factum – the broad contextual developments to changes on the individual level of the commoner, and to unravel the effects of decisions that were taken by commoners as a reaction to changes in, for example, agricultural techniques on the individual lives of commoners. In many cases, the effects of decisions will not appear until many years later. As mentioned, the concept of a social dilemma, which is often taken as the starting point for experimental research, in itself implies that the impact of short-term decisions will only be apparent in the long term.

One of the reasons for the relatively small body of literature on historical commons – at least in comparison to the very large number of studies on contemporary commons that have taken place over the past twenty years[10] – is

[9] A social dilemma refers to a situation in which individual goal-directed behavior may lead to a collectively suboptimal outcome (see Raub, Buskens, and Corten 2014).

[10] See Van Laerhoven and Ostrom (2007) for an overview of studies on commons outside of the domain of history.

the lack of sources that can be used for this subject. And whenever there are sources, it is always extremely labor intensive to construct data sets that come somewhat close to what can be done in experiments or field research. Contrary to the urban forms of institutions for collective action, such as guilds or fraternities, documents on the commons and commoners are difficult to find. Charters showing how the commoners reached an agreement with the local lords on management and use of the common are primarily prescriptive and give us only a partial – though important – idea of the daily functioning of the commons. The charters contain rules for use and management and prescribe sanctions for those who would infringe on those rules, but they do not disclose to what degree these rules were followed or when sanctions were imposed when rules were broken. But luckily, for some cases more information than this has been preserved.

The central case study of this book is such an example, for which a large body of interesting sources has survived. It is situated near the city of Bruges, in the heart of Flanders (during the ancien régime). Just outside Bruges' city walls, in a village called Assebroek, a name that refers to 'a meadow where horses graze', was and still is a common called the Gemene en Loweiden. Originally, the two main pastures that made up this common were managed separately, but over time they were brought together under the same name and management. In close proximity to this common were several other commons: the Beverhoutsveld, the Sijseleveld, the Bulskampveld, and other cases that will be referred to throughout the book. We analyzed this rich historical archive and interpreted the results in light of the research on both historical and present-day commons.

The approach applied in this book is a serious attempt to bridge disciplines, but in doing so, the bridges and gaps between the disciplines also become quite apparent. It is, for example, impossible to repeat experiments with commoners from the past, simply because they are no longer there; but it is nevertheless, to a certain degree, possible to become a field researcher of the past. As far as the sources and time permit, it is possible to reconstruct the daily functioning of a common, and to approach the historical commoners closely in their activities in the village and on the common. It is important to keep in mind, however, particularly when trying to use the results of experimental studies for historical research, that commoners did not (and still don't) live in a laboratory: they were part of an economic and social reality that stretched beyond their own homes and beyond their own village, even if they never went any further than the neighboring village. Therefore, data that sketch the social and economic reality of the eighteenth- and nineteenth-century villager will

also be used here to explain what happened on and around the common, and the decisions the commoners made will be put in wider social, economic, and political perspective. It will be made clear that the commoners' backgrounds, and the shifts in these due to external changes, are fundamental to understanding their behavior towards the common's management and use. Rather than looking at commoners as guinea pigs in a laboratory, we should consider the historical situation itself as a laboratory.[11]

Having stressed the potential pitfalls the sources and methods applied in this book might produce, it is also worthwhile to point to the potential benefits. It would be possible, in a more traditional historiographical way, to give a chronological overview of the ways commoners organized their resource use and management. But using new insights based on nonhistorical research will open new ways of interpreting the actions performed by the commoners that previously may have been neglected as important findings. Why were commoners forced to attend the commons meetings, on penalty of a fine? Or were limitations on access to the commons set only to exclude others? And what was the importance of participation, or the opposite, of not being involved? In many cases we can guess what the answers to these questions were, but comparison with the behavior of others in similar situations today might offer more enlightening interpretations. In this book, comparisons are made with case studies in northwestern Europe, but the main focus is on a case in an area in the heart of northwestern Europe: Flanders. Elsewhere in this book (see 2.1) this area will be described in detail, as well as the differences the area has regarding density of commons compared with elsewhere in Europe. The challenge of this book – to provide a very detailed level of commoners' behavior and to reconstruct individual motives for specific choices in relation to the common they were entitled to use – and the extremely high labor intensiveness this entails in archival research and the analysis of a great number of detailed records, keeps us from taking into account more than a single case. Not only has the participatory behavior of the commoners during the eighteenth and nineteenth centuries been reconstructed in detail for the case of the Gemene and Loweiden, we also have information for a very large number of commoners, such as when they were born, which commoners they were related to, when the important events in their lives (such as marriage) took place, the number of livestock they had, and the occupations they held at various times. Such detailed information is particularly important to reconstruct the motivations of commoners for participating in

[11] See also Van Bavel (2014) on this topic of the role of history in the study of institutions.

the commons' activities, to obey the rules or to defect, to favor privatization or not. However important this kind of information may prove to be to understand the evolution of this particular commoners' community, such an insight into the daily lives of commoners is also fairly unique, making opportunities for comparison sometimes limited.

Methodologically, most of this book is based on a detailed case study, though using a much wider theoretical and interdisciplinary perspective. To some extent, history has already made a pre-selection of cases that were not fit for long-term survival, which may have silently disappeared from the historical records, making it hard to disentangle the real reasons for success behind the surviving cases. That unsuccessful cases may not have been chronicled is a factor we can, in historical studies, not deny, but this is a difficulty with which nonhistorical studies are not confronted because only those cases that exist at a certain point in time are included in studies. This again creates the disadvantage that long-term changes, possibly leading to the disappearance of a common, are as such left out of nonhistorical commons anyhow. Unfortunately, the ideal historical case does not exist.

Considering all this, some might claim that the case examined in this book is an exceptional one, because of the rather well-preserved archives and because it managed to survive until today, although its function and form has altered quite substantially in the meanwhile. Most commons in Belgium disappeared during the nineteenth century at the latest, either by force or because their members were no longer interested in being an active user of the common or could no longer fulfill the conditions of active membership. Elsewhere in the country, such as in Wallonia in the southern part of present-day Belgium, and elsewhere in Europe, common rights are still recognized and actively practiced today, though not always in the same way as before. The fact that the common studied in this book managed to survive is to a large extent due to the exceptional efforts of a local priest, canon Andries, who also had had legal training and defended the commoners in court against the local authorities who tried to put their hands on the common (see further in this book). Without this, the Gemene and Loweiden would likely have suffered the same fate as most other commons in Flanders, with as a sure consequence the loss of the archival documents as well. As will be demonstrated in the book, the common was in terms of design or functioning not exceptional at all. The rules that were designed to limit free riding and overuse were similar to other commons of the so-called closed type (see conclusions of Chapter 2). Its size – both in terms of surface and members – was not exceptional, nor was its management strategy markedly different from that of other commons in Flanders at the time.