CAMBRIDGE
UNIVERSITY PRESS

RESEARCH ARTICLE

Elinor Ostrom on choice, collective action and rationality: a Senian analysis

Paul Lewis[1] and Matias Petersen[2] (iD)

[1]Department of Political Economy, King's College London, UK and [2]Centro Signos, Universidad de los Andes, Chile
Corresponding author: Matias Petersen; E-mail: mpetersen@uandes.cl

Abstract
This paper explores Elinor Ostrom's account of practical reason through the conceptual lens provided by a typology of dimensions of rational conduct advanced by Amartya Sen. On Sen's view, self-interested behaviour has three independent, and separable, features: self-centred welfare, self-welfare goal and self-goal choice. We suggest that Ostrom is committed to a version of rational choice theory that retains the assumptions of self-welfare goal and self-goal choice but, by acknowledging that people's welfare is affected by factors beyond their material consumption, departs from the assumption of self-welfare goal. We argue that this departure is not necessarily driven by an acknowledgement, along Senian lines, that people may have reasons for action other than the single-minded pursuit of their own goals, but rather by Ostrom's belief that the decision problem people face is so complex that maximising behaviour is rendered impossible. We illustrate this argument by analysing how Elinor Ostrom's position differs not only from Sen's but also from that of her husband and long-time collaborator Vincent Ostrom, who in his analysis of the covenantal aspects of rule-making seems to depart from the assumptions of instrumental rationality and preference-satisfaction.

Keywords: Amartya Sen; collective rationality; Elinor Ostrom; rational choice theory; rule-making

Introduction

The goal of this paper is to explore the notion of rationality, and the account of the place of reason in rational action, to which Elinor Ostrom subscribed. Ostrom herself stated that she sought to 'expand the range of rational choice models we use' to include 'a behavioural theory of boundedly rational and moral behaviour' (Ostrom, 1998: 2). This expansion would imply the use of 'second-generation' theories of rational choice which emphasise that humans have limited cognitive capabilities and are able to learn heuristics and rules to structure their interactions (Ostrom, 1998: 9). But how far does this 'expansion' of the nature of rational choice theory take her? To what extent, and in precisely what ways, does she depart from the canonical model?[1] Commentators have come up with different answers to this question. For example, one observer has described Ostrom as viewing people as 'rational beings in the broadest sense' who 'seek to optimise values that are important to them … [and] have the ability to deliberate, to use their conscience, to create forms of morality that give them personal identity insofar as they are connected to others' (Lara, 2015: 583). In contrast to this emphasis on optimisation, Deirdre McCloskey has described Ostrom as someone who 'went beyond Max U toward a truly revolutionary humanomics' (2022: 123).[2] For Tarko, however, Ostrom's broadening of the notion of

---

[1]We follow Sen (2002: 19) in describing the canonical or standard account of rational choice theory model as one involving at least one of the following theses: consistency of choice *via-a-vis* an agent's preferences; the maximisation of the agent's self-interest; maximisation in general (also see Sen, 2009: 189–90).

[2]McCloskey colourfully describes 'Max U' as 'a narcissistic sociopath intent on maximising his utility subject only to the constraint of the rules of the game. Or not, if he can get away with it' (2022: 12). McCloskey contrasts this 'Prudence only'

rationality does not, in the end, entail a departure from rational choice, understood as the idea that people pursue their individual goals as effectively as they can, given the knowledge available to them and the constraints they have: 'Ostrom's critique of existing rational choice theories [is] always aimed at improving the rational choice framework', Tarko (2021: 50) argues, 'rather than opting for some alternative'. Such characterisations – some of which suggest that Ostrom was committed to a (broad) version of rational choice theory, involving a continued emphasis on maximisation but of an expanded utility function, others of which imply that she departs from the view of people as utility-maximisers, however broad the influences on their utility might be – do not leave the reader with a clear impression of Ostrom's portrayal of human action. The goal of this paper is to help clarify her position.

To this end, we explore Ostrom's views on the nature of rational conduct in more detail, using the analytical lens provided by the work of another Nobel Laurate concerned with the nature of rationality, namely Amartya Sen. As we shall see, Sen's analysis of rational action as involving notions both of 'sympathy' and 'commitment' – or, to put it slightly differently, as involving varying degrees to which people's conduct reflects their own individual interests and goals – provides a useful framework for conceptualising Ostrom's views and thereby identifying her precise commitments. Our analysis is 'Senian', therefore, in the sense that we use concepts drawn from his analysis of rational choice to explore various aspects of Ostrom's views (without, however, suggesting that Sen's approach is identical to, or subsumes, Ostrom's). The use of Sen's framework is appropriate because he and Ostrom share a number of concerns, so there is significant – although not, as we shall see, complete – common ground between them.[3] This shared ground includes a concern with the nature of rational choice; an acknowledgement of the need to move beyond simple models of people as maximising their short-term, material self-interest if real-world outcomes are adequately to be explained; an interest in the solution of social dilemmas and collective action problems, in particular through people devising rules that enable them to transform their circumstances so as to resolve those problems; and the role of reason in that process.[4]

Sen and Ostrom have both noted the affinities between their work. For example, in his book *Rationality and Freedom*, Sen describes Ostrom's work on collaborative behaviour as illustrating that 'people can actually have reasons … to have broader goals and more socially-oriented values (or "moral sentiments", to use Smith's terminology)' (Sen, 2002: 25). Ostrom's work is one of the approaches that 'has many lessons to offer that take us beyond formulaic understanding of actions and reactions' (Sen, 2002: 45). In a similar vein, Ostrom refers favourably to Sen's notion of 'commitment' (Ostrom, 1998: 9, 2005: 111–12) and to his claim that people's behaviour often reflects a different form of reasoning than that presumed in many formal economic theories (Ostrom, 2008: 526).[5]

The paper also builds on a small but growing literature on the ontological presuppositions of the work of Elinor Ostrom and of the wider Bloomington School of Institutional Analysis and Development to which she contributed so much (Lewis, 2021; Malik, 2017; Miroiu and Dumitru, 2021). In exploring what Ostrom presupposed about the nature of the human agent, the paper contributes to the growing literature on ontology and the history of economic thought (Arena and Lawson, 2015; Lewis, 2017; Lewis *et al.*, 2020). Moreover, in addition to exploring Elinor Ostrom's views on rationality, the paper also sheds light on the similarities and differences between Ostrom

---

view with approaches that emphasise 'the non-prudent virtues … which Amartya Sen gathers under the label of "commitment"' (2022: 84–85).

[3]Our use of Sen as a foil therefore does not involve us relying on an approach that is utterly alien to Ostrom.

[4]Throughout the paper we use concepts such as goals, intentions, and reasons for action in a way that is consistent with the language of formal decision and game theory, in the sense that, in most cases, preference orders reflect our goals and reasons for action. However, following Sen and philosopher John Searle, we assume that an agent can have reasons for action that are different from his or her preferences. In these cases, therefore, the concept of a reason for action has a broader meaning and is not restricted to the agent's desires. We thank an anonymous referee for pressing us on this point.

[5]In a similar vein, Elinor Ostrom's long-time co-author Vincent Ostrom mentions Sen's 'Rational Fools' as being 'indicative of some of the social dilemmas and puzzles that pervade human societies' (1997: 90).

and her long-time co-author, and husband, Vincent Ostrom. As we shall see, notwithstanding the considerable similarities and complementarities between their work, there is an important divide between them about the nature of rational conduct, in particular in the context of constitutional decision-making, that (so far as we are aware) has gone unremarked in the literature examining their ideas.

The structure of the paper is as follows. The next section, on 'Sen on rationality', outlines some relevant aspects of Sen's account of rational action, as well as his account of the role that social rules play in the explanation of collective action problems. The third section of the paper, entitled 'Elinor Ostrom on the possibility of self-governance of CPRs', summarises Elinor Ostrom's analysis of common pool resources (CPRs) and explores what kinds of motivation animate the actions of the people involved in self-governance, and whether departures from utility-maximising behaviour are due to the complexity of the situation or to other considerations, such as identity or a commitment to following certain rules of conduct. The next section, entitled 'Ostrom's understanding of practical reason: a Senian analysis', analyses Ostrom's views in the light of Sen's account of rational action. A final section summarises the argument and concludes the paper.

Sen on rationality

According to Sen (1985: 347, 1987: 80), the dominant view of rationality in mainstream economics contains three different claims regarding rational conduct: *self-centred welfare* (A's welfare depends only on A's consumption); *self-welfare goal* (A's only goal is to maximize his/her welfare); and *self-goal choice* (A's choices are guided primarily by A's own goals, ruling out the possibility that the individual's choices are constrained or influenced by other people's goals or by A's commitment to following rules of conduct).

Sen (1987: 80–81) goes on to observe that these aspects of self-interested behaviour are independent of one another and so can in principle be separated. For example, a person's welfare may depend not only on his own consumption, but also on the welfare of others, but her choices may nevertheless reflect only her individual goals. This would be the case, for example, if a person sympathises with others in the sense in which the term 'sympathy' is used by Sen (1977: 326–29). This case would involve the violation of the assumption of self-centred welfare only. Another possibility, which will turn out to be important in what follows, would be for an individual's welfare to depend only on his or her consumption, so that sympathy is not involved, but for his or her choices nevertheless to 'take note of other people's goals, due to a recognition of the nature of mutual interdependence of the achievements of different people in these situations' (1987: 85). Such considerations, which feature prominently in Sen's account of how people deal with collective action problems, involve what Sen (1977: 326–29, 342–44) refers to as 'commitment' and entail violations of the assumption of self-goal choice.

Forms of conduct that involve a person *not* choosing the course of action that best serves his/her goals, and so violating the assumption of self-goal choice, are central to Sen's account of how people can deal with collective action problems of the kind represented by the prisoners' dilemma (PD) game.

> The real difficulty with the assumption of self-goal choice arises … from the fact that the use of self-goal choice on the part of a community of people with diverse goals may lead to each person's goals being less fulfilled than they would have been had the persons followed a different rule of behaviour (Sen, 1987: 81).

As Sen goes on to explain, if in the PD game each person plays their dominant strategy, acting consistent with self-goal choice, then the outcome will see each fail to advance their individual goals as successfully as they otherwise might (1987: 82).

Sen notes, however, that empirical evidence – gathered from laboratory experiments, for example – indicates that people often eschew their dominant strategy (thereby achieving a better outcome than they would if each pursued their individual goals) (Sen, 1977: 340–41, 1987: 83, 86). He explains such

behaviour by invoking two related considerations: group identity and people's commitment to social rules. Group identity is important, according to Sen, because 'recognising the existence of other people's goals is part of living in a community' and, as a result, 'in arriving at goals, a person's sense of identity may well prove quite central' (Sen, 1985: 345, 348). On this view, individuals are able to view their actions 'in terms of social strategy, taking note of the respective goals of others similarly placed and thinking of what we should do, or what should be "our" strategy' (1987: 85–86). And if people identify with each other in this way, Sen argues, then in the case of PD-type situations they will recognise that choosing the cooperative strategy is 'better for the respective goals of all of us' (1987: 86). Individuals will therefore have good reasons for choosing the cooperative strategy 'even though each person might have been able to enhance the fulfilment of his or her own goals further by following a different strategy, *given* the strategy choice of others' (Sen, 1987: 83, 86; also see 1977: 341, 1985: 350–51):

> If taking everything into account, every member of the group does better in terms of the respective goals by following one type of behaviour pattern rather than another, then that *is* a justification for … [that] behaviour pattern (Sen, 1985: 346).

For Sen, therefore, people who derive part of their identity from their membership in groups, and who therefore see their actions 'in terms of social strategy, taking note of the respective goals of others similarly placed', have good reasons for following the cooperative strategy even when doing so 'goes against each person's [individual] dominant strategy' (Sen, 1987: 86–87).

One of the ways in which the sense of identity affects behaviour 'is through making members of a community accept certain rules of conduct as part of obligatory behaviour towards others in the community' (Sen, 1985: 349):

> It is not a matter of asking each time, What do I get out of it? How are my own goals furthered in this way?, but of taking for granted the case for certain patterns of behaviour towards others (Sen, 1985: 349).[6]

Compliance with the rules in question, which is a condition for membership, might require people to refrain from opportunistically exploiting other members and to keep promises even when refraining from doing so would advance an individual's goals, 'reflects a type of commitment' since it 'arise[s] from self-imposed restrictions on the pursuit of one's own goals' (1985: 351, 348). As Sen summarises, 'the sense of identity takes the form of partly disconnecting a person's choice of actions from the pursuit of self-goal' so that the pursuit of private goals is 'compromised by the consideration of the goals of others in the group with whom the person has a sense of identity' (Sen, 1985: 349, 348).

Sen's account of how people who are affiliated to certain groups, and committed to the rules governing their members' interactions, think of themselves as acting in term of a shared (*our*) strategy can be developed using the notion of collective intentionality proposed by the philosopher John Searle (1990, 1995; Martins, 2009: 328–29).[7] This is relevant for some of the comparisons made later in the paper, because as we shall see Ostrom invokes Searle's work. 'Collective intentionality' involves people sharing beliefs, desires and intentions: 'The crucial element in collective intentionality', Searle (1995: 24–25) states, 'is a sense of doing (wanting, believing, etc.) something together, and

---

[6]Sen (1985: 349) traces this interpretation of the significance of social rules back to Adam Smith, who in *The Theory of Moral Sentiments* characterised the importance of social rules as follows: 'Those general rules of conduct, when they have been fixed in our mind by habitual reflection, are of great us in correcting misrepresentations of self-love concerning what is fit and proper to be done in our particular situation' (Smith, [1790] 1974: 160).

[7]Searle's work on collective intentionality is not the only possible reference. Searle (1995: 230) himself mentions Gilbert (1989), Bratman (1992) and Tuomela and Miller (1988) as examples of other relevant conceptions of collective intentionality. We focus on Searle mainly because both Sen and Ostrom refer to his work. For a very helpful elaboration on the role of constitutive rules, in Searle's sense of that term, in Ostrom's work, see Tarko *et al.* (2019: 222–25).

the individual intentionality that each person has is derived from the collective intentionality they share'. For instance, people's commitment to the social rules that characterise a group of which they are all members involves them sharing intentions to the effect that, 'We believe that members of our group should do x in circumstances z' (where the phrase 'do x' is a placeholder for a variety of injunctions such as, 'count as', 'take to mean', 'refrain from', etc.). Such rules specify, for example, what types of behaviour group members count as acceptable (or not). The intentionality is collective because a single individual cannot unilaterally declare that there exists a particular social rule; that belief must be accepted by other people as well, as captured by the notion of collective intentionality. And for Searle, as for Sen, if an individual shares such an intention, then that serves to 'create reasons for action that are independent of what you or I or anyone else are inclined to do' (i.e. are independent of the individual's preferences) (Searle, 1995: 70; cf. Sen, 2002: 23–26, 36, 40–41, 51–52).[8] In identifying with a group, therefore, individuals understand that they have accepted an obligation to adhere to the relevant rules even when doing so involves them departing from their individual (self)goals, making a commitment that motivates their subsequent actions (also see Davis, 2007).[9]

As we shall see, Searle's ideas about collective rationality also play an important role in Elinor Ostrom's work, to which we now turn our attention.

Elinor Ostrom on the possibility of self-governance of CPRs

As noted above, Sen contends that the PD provides a misleading way of viewing human conduct, not least because by portraying 'the nature of individual behaviour … in terms of maximising according to an individual preference ordering', it ignores the possibility that '[s]ocial demands on conduct can go well beyond modifying the preference ordering of a person (e.g. in a more "social" direction) and may involve systematic departures from the pursuit of one's preference ordering' (Sen, 1984: 14). One cause of such departures, Sen believes, lies in the way that people's commitment to social rules furnishes them with reasons for putting aside their individual (self-)goals in favour of interacting with others in certain commonly accepted ways. By acting out of commitment to social rules, Sen contends, people can in effect transform the situation they face from one that is represented by a PD to one that takes the form of assurance game, thereby offering a more realistic possibility of securing the cooperative outcome (Sen, 1977: 340–41, 1985: 350–51). This commitment to social rules is not devoid of instrumental reasoning, but the reasons for acting upon a social rule are not necessarily aligned with the direct pursuit of individual goals. In Sen's words, 'if people are ready to act (individualistically) on the basis of some "as if" – more cohesive – orderings, then they can do better than acting individualistically in pursuit of their real goals. And they do better judged in terms of the real goals themselves' (1985: 346).

This emphasis on how social rules can be used to transform people's circumstances, turning situations that can be represented by a PD into ones where people have both the motivation and the information needed to achieve cooperative outcomes, is also found in Elinor Ostrom's analysis of CPRs. CPRs are environmental resources such as village grazing lands, forests and fisheries. They have two main attributes: it is difficult to exclude people from the resource and thereby to prevent them from consuming it; and any one member's consumption of the resource reduces the amount available for others. These attributes imply that an individual's use of, or investment in, a CPR, generates costs

---

[8]It is important to note that this account of collective intentionality presupposes that, in Searle's words, 'there is a distinction between reasons for action which are entirely matters of satisfying some desire or other and reasons which are desire independent' (Searle, 2001: 7). This, in turn, involves taking sides on the debate about external and internal reasons for action (see Finlay and Schroeder, 2017 for an overview). Also see Sen (2002: 25): 'The program of replacing the breadth of our values and priorities by a devised complexity of instrumental reasoning (to claim the adequacy of simple and selfish values) may be an exciting intellectual challenge, but it needed not be seen as the core of a theory of rational behaviour if our values do, in fact, have the breadth that this program tries so much to assume away'. In a footnote appended to this sentence, Sen writes, 'On the extensive reach of rationality in conduct, see also Searle (2001)'.

[9]As Deirdre McCloskey (2022: 91) puts it, in a discussion of Searle work, such speech acts 'give[.] me a reason for action independent of my lazy inclinations and desires. Commitment. Virtues'.

or benefits for other users which that individual does not take into account. Where such 'externalities' are present, the pursuit of individual self-interest can lead to excessive consumption of, and under-investment in, the resource (the 'tragedy of the commons') (Hardin, 1968). The situation facing the users of such resources is often portrayed as a PD, with the non-cooperative, Pareto-inefficient outcome representing the tragedy of the commons. It has been widely argued that the appropriate policy response to this social dilemma is some kind of external intervention, involving either direct management by a government agency or privatisation of the resource (Ostrom, 1990: 2–15). However, Ostrom argued that modelling the situation faced by the users of a CPR as a PD is potentially misleading, because it portrays people as passively accepting their circumstances. It thereby ignores the possibility – which a significant body of case study evidence suggests is often realised – that people can devise and enforce sets of rules that enable them to organise their interactions with each other in ways that facilitate the successful management of the resource (Ostrom, 1990: 1–28, 2009: 525–27, 2010b: 5–6, 14–15).

More specifically, Ostrom suggests that people use a variety of rules both to create social positions, such as 'authorised user' and 'monitor' of a resource, and also to specify what actions the occupants of those positions are allowed and required to take (e.g. how much of the resource they are allowed to consume, what they are obliged to do to maintain it, and how much – and about what matters – they should communicate and share information with each other). The rules also determine how the costs and benefits of (un)successful outcomes are distributed between the members of the relevant community. If the rules in question are well chosen, then when people follow them their behaviour generates both the incentives and the information required for successful self-governance (Ostrom, 1990: 19–20, 91–100, 136–42, 185–88, 1999: 508–19, 2005: 233–36, 2010b: 2, 6). And, again like Sen, Ostrom describes the creation of those rules as transforming the situation people face from one resembling a PD, where the chances of cooperation are low, to one more akin to an assurance game, where the prospect of cooperation is much greater (Ostrom, 1990: 46–47; Ostrom *et al.*, 1994: 293–97).[10]

In structuring the remainder of our account of what Ostrom's understanding of self-governance presupposes about rational conduct, we follow her in distinguishing between two important kinds of behaviour: that involved in creating a framework of rules to govern people's day-to-day (inter) actions with the CPR; and that involved in deciding how to interact with a CPR once the relevant rules have been established. We do so because, as we shall see, Ostrom's views about the relevance of rational choice theory differ depending on which of those two kinds of decision are being considered.

Consider first her account of people's efforts to organise their interactions with a CPR by *creating* a system of operational rules. This involves them drawing on pre-existing 'collective choice' – and perhaps also 'constitutional choice' – rules (Kiser and Ostrom, 1982: 206–09; Ostrom, 1990: 39–40, 45–46, 50–55) in order to create a system of operational rules that will govern their day-to-day consumption of, and investment in, the resource (Ostrom, 1990: 42–43; also see Lewis, 2021: 629–30).[11] In this case, as we shall see, while there is some evidence that Ostrom might consider people as departing from instrumentally rational reasoning and self-goal choice, ultimately she seems most committed to a view of people as facing unstructured ('large-world') decision problems that simply do not afford them the knowledge required for expected utility-maximising behaviour.

---

[10]For more detailed summaries of Ostrom's analysis, see Tarko (2017: 69–101) and Lewis (2021: 626–31). Other scholars have suggested that there are features of the setting in which the users of CPRs typically interact – such as the absence of barriers to communication – which imply that it should be represented as an assurance game, and not as a PD, from the outset (Cole and Grossman, 2010).

[11]Ostrom distinguishes between various kinds of levels of rules. *Operational* rules govern people's everyday interactions with the CPR (regulating how much of it they are allowed to appropriate, what they are required to do to maintain it, etc.). *Collective choice* rules stipulate the procedures through which those operational rules are selected, while *constitutional choice* rules regulate how collective choice rules are determined (Ostrom, 1990: 52, 2005: 58–62).

Once those operational rules have been established, however, people face a much more structured decision problem. Behaviour *within* rules involves people making decisions about matters such as how much of a resource to consume and how much to invest in it, ideally in ways that see them solve the collective action problem involved in managing the resource so as to avoid the tragedy of the commons (Ostrom, 1990: 34, 50–55). In considering how people make those routine decisions, within a framework of given operational rules, Ostrom adopts a broad model of rational action whereby people face sufficiently well-structured ('small-world') decision problems that permit expected utility-maximisation (albeit with, as we shall see, people's utility being affected by a far broader range of factors than simply their material consumption of the resource).

Rules, covenants and bounded rationality

In considering how people create the operational rules and positions upon which the possibility of self-governance depends, Ostrom draws both upon the notion of 'artisanship', as set out by her long-time collaborator Vincent Ostrom (1980), and also upon the related concept of 'institutional facts', developed by the analytical philosopher John Searle (1969, 1995). *Artisanship* is the process through which people create artefacts, understood as 'anything created by human beings with reference to the use of learning and knowledge to serve human purposes' (Ostrom, 1980: 309). In the case of the commons, artisanship involves people using language – speech acts – to create various social positions along with rules setting out the rights and obligations enjoyed by their occupants, rights and obligations that govern how the occupants of those positions relate to, and interact with, each other:

> Rules, as I wish to use the term, are potentially linguistic entities … that refer to prescriptions commonly known and used by a set of participants to order repetitive, interdependent relationships. Prescriptions refer to which actions … are required, prohibited, or permitted. Rules are the result of implicit or explicit efforts by a set of individuals to achieve order and predictability within defined situations by (1) creating positions (e.g., member, convener, agent, etc.); (2) stating how participants enter or leave positions; (3) stating which actions participants in these positions are required, permitted, or forbidden to take; and (4) stating which outcome participants are required, permitted, or forbidden to affect. Rules are thus artifacts that are subject to human intervention and change. (Ostrom, 1986: 5–6; also see Ostrom, 1990: 185, 2005: 132–46.)

As noted earlier, a judicious choice of positions and rules means that people have both the knowledge and the incentives needed to enable them to engage successfully in self-governance.[12]

Elinor Ostrom conceptualises the sets of rules and positions in question as 'institutional facts' in the sense in which that term is used by John Searle (1969, 1995) (Ostrom, 2006: 6, 8; also see Ostrom, 2005: 144). In contrast to so-called *brute* facts, which exist independent of people and language (e.g. water consists of hydrogen and oxygen atoms), the existence of *institutional* facts depends on human intentions and language. The reason is that institutional facts are created through various kinds of speech act that assign collectively accepted functions to people and/or objects. For Ostrom, such institutional facts are an essential part of the fabric of society (Lewis, 2021: 627–28, 630–31; Miroiu and Dumitru, 2021: 89).

For Searle, there are three key elements to the creation of institutional facts. The first centres on people's capacity to assign functions to other people or objects. For example, the members of a community may assign to certain individuals the function of 'monitor', charged with the task of checking that the users of the CPR comply with agreements governing consumption of, and investment in, the resource. Second, this assignment of function is achieved collectively, by the members of the community acting together. A lone individual cannot unilaterally declare herself to be a monitor; that status

---

[12]'The creation of … artifacts depends on the use of language to formulate rules for ordering relationships among the individuals who interact with each other … [so as] to create orderly and mutually productive relationships with each other' (Ostrom, 1980: 311–12).

must be bestowed by the other members of the group. Searle captures this point using the notion of 'collective intentionality', discussed above, which in this case involves the members of a community declaring that they accept that a particular person will act as a monitor. Thus, social facts are those involving collective intentionality. Third, institutional facts are a particular kind of social fact, namely those whose existence depends upon *constitutive* rules (Searle, 1995: 40, 43–51). Such rules typically take the form 'X counts as Y in context C', where – in the case under consideration here – X is a particular person, Y is the status or function of being a 'monitor', and C is 'a particular community'. That a particular individual taking on certain duties and enjoying particular powers counts as a monitor in a certain community is an institutional fact. For Searle, therefore, and for Elinor Ostrom, institutional facts arise through particular kinds of speech acts whereby a group of people agree to follow certain (constitutive) rules specifying the functions to be (collectively) assigned to particular people, thereby creating institutional facts such as the positions of 'monitor' and '(authorised) user' (Ostrom, 1990: 185, 2005: 132–33, 144; also see Lewis, 2021: 630–31).

Given this account of institutional rules, the question that arises in the context of this paper, is: what kinds of motivation animate the actions of the people involved in self-governance, both (i) in creating the requisite rules and also (ii) in choosing how to behave under those rules once they are in place? Is it the case that any such behaviour involves people setting aside their own (self-)goals in favour of 'thinking in terms of what "we" should do, or what should be "our" strategy' in ways 'involving recognition of other people's goals and the mutual interdependencies involved' (Sen, 1987: 85)? In other words, does Ostrom's account of human behaviour in the context of social rules acknowledge the possibility that people may be driven by motivations that are distinct from the instrumental desire to satisfy their own preferences? As we shall see, examining her writings does not permit an entirely clear answer to this question.

One aspect of Ostrom's work that lends support to the view that, like Sen, she acknowledges the importance of motivations that go beyond instrumental reasoning and the satisfaction of individual preferences can be found in her discussion of the significance of face-to-face communication in enabling people to overcome social dilemmas. Drawing on experimental methods, Ostrom contends that allowing people involved in common-type problems to discuss possible responses to their predicament can lead to significantly improved outcomes (Ostrom, 2000: 140–41, 2005: 85–98, 2010a: 655; Ostrom *et al.*, 1994: 145–69). In an essay written for a volume in honour of Amartya Sen, Ostrom describes the significance of these results as follows:

> The laboratory experiments did not establish that subjects lacked rationality or were inexperienced … Rather, as Sen has argued in his famous article on 'Rational Fools' (1977), the experiments illuminated that the subjects used a different form of reasoning than that presumed in many formal economic theories. When subjects had an opportunity for repeated communications, they used this opportunity first to discuss the problem they faced and to ask what joint strategy would get the most money for the group from the experimenters. (Ostrom, 2007: 7).

Analysis of the transcripts of such discussions suggested that

> when individuals see themselves as a member of a potential group, they can use solidarity language to increase the likelihood of other participants seeking group benefits rather than their own short-term benefits …Thus, subjects used communication as a way of increasing the sense that they were a group jointly effected by the results they obtained (Ostrom, 2007: 7–8).

These references to Sen's famous 1977 paper, to alternative forms of reasoning, to group identity and to the importance of joint strategies, offer some support to the view that Ostrom acknowledges that people can depart from self-goal choice. Amartya Sen too seems to have noted the potential affinities between his work and Ostrom's on this issue, describing her work on collaborative behaviour as

illustrating that 'people can actually have reasons … to have broader goals and more socially-oriented values (or "moral sentiments", to use Smith's terminology)' (Sen, 2002: 25).

Ostrom uses the term 'covenant' to describe rule-making activities aimed at enabling people to organise their interactions so as to avoid the tragedy of the commons (Ostrom, 1993, 2005: 85, 92–93). 'Covenants are the foundation for a self-governing society', Ostrom (1993: 7) writes, and centre on 'the willingness of individuals to come to basic agreements about how they will achieve future tasks, to keep to those agreements, and to monitor one another so that temptations to break agreements do not threaten the viability of the agreements'. They exist at different levels of society, including both the nation state and the local communities involved in managing CPRs and 'constitutional and covenantal theory' form part of the IAD framework by means of which Ostrom seeks to analyse the possibility of self-governance. (Ostrom, 2005: 28).[13] The kinds of motivation involved in reaching such agreements are touched upon in another article, of which Ostrom was a co-author. In this article, Ostrom and her co-authors suggest that in the context of rule-governed relationships 'the relevant design skills cannot be reduced to instrumental reason. We need a larger set of skills, guiding the choice of ends as well as the choice of means. If we assume that rationality in the choice of ends is the domain of philosophy, then we need to incorporate a certain amount of philosophy' (Boyte et al., 2014: 208–09).[14]

The nature of covenantal agreements, and the kind of reasoning involved in achieving them, is considered in more detail in the work of Elinor Ostrom's husband and long-time co-author, political scientist Vincent Ostrom, who conceptualises them as examples of Searle's notion of 'institutional facts'. The basic idea is that covenanting involves groups or communities of people agreeing to abide by certain rules, using speech acts taking the form of Searlean 'collective intentions' whereby they commit themselves to following the rules in question (Ostrom, [1991] 2012: 260–62, 1997: 25–26, 128, 184, 294–95, 298, 2008: 235–37; also see Ostrom, 2006: 6, 8).[15] What is significant about this process for our present purposes is that like Searle, Vincent Ostrom argues that such constitutional endeavours, which 'turn[.] on how ideas expressed through the language of rules are used to constitute patterns of human relationships' (1997: 26), involve motivations that are irreducible to preference satisfaction:

> Maximising utility … does not apply to epistemic choice or constitutional choice in the same way that such calculations might be thought to apply to the choice of substitutable alternatives in one-to-one comparisons of distinguishable but similar items. To rely on a single specifiable criterion of choice, such as Utility, is to treat human societies as one-dimensional realms in which the forest cannot be seen for all the trees that obstruct one's view. (Ostrom, 1997: 279; also see pp. 98, 102)[16]

---

[13]Ostrom (1990: 26–29, 216) conceptualised her work on how communities can craft rules that enable them to avoid the tragedy of the commons as contributing insights that are relevant to understanding the possibility of self-governance at the larger scale of the community as a whole (Lewis, 2022: 72).

[14]On rationality in the choice of ends, compare Schmidtz (1994).

[15]A covenant differs from a contract in a number of ways. First, the sense of obligation it entails is open-ended, lasting in perpetuity and covering unforeseen circumstances (in contrast to the obligations created by contracts, which are more limited in duration and more specific in terms of the conduct required and the range of situations for which behaviour is specified). Second, covenants are underpinned not, as are contracts, by formal legal agreements but rather by moral commitments – perhaps most notably, for Vincent Ostrom, to the Golden Rule stipulating that one should do unto others as one would have them do unto you – that are (as elaborated below) irreducible to self-interested behaviour (conceptualised in terms of preference satisfaction or self-goal choice) (Ostrom, 1991: 63–66, 217, 1997: 184, 188, 279, 285; also see Allen, 2005: 15–17 and Malik, 2017: 108, 110–12, 1997: 118).

[16]Also consider the following two quotations: 'Agreements about enduring human relationships are not simply exchange relationships but open-ended commitments best characterised as covenantal in nature' (Ostrom, 1997: 285); and 'The emphasis on maximising "utility" [in neoclassical theory]… means that primary attention is being given to preference orderings; other aspects of the political economy of life are excluded from the focal attention of inquiry and swept into the background … The place of knowledge and of information, the place of a moral order as constitutive of fiduciary relationships, the place of law and the requirements of justice, and the requirements of intelligibility in human artisanship are treated as outside

On the contrary, covenantal reasoning involves people recognising an obligation to consider the interests and goals of others in deciding how to behave (in this case, in deciding what rules to create and commit to as a group) (Ostrom, 1997: 188; also see Ostrom, 1991: 62–66, 252–53, 1997: 12–18, 93–96, 100–02, 184, 279–81, 292–95). It therefore seems closely to resemble Sen's idea that people are able to set aside their own (self-) goals in favour of 'thinking in terms of what "we" should do, or what should be "our" strategy' in ways 'involving recognition of other people's goals and the mutual interdependencies involved' (Sen, 1987: 85).[17]

Since Elinor Ostrom in several places refers to Vincent Ostrom's work on rules (Kiser and Ostrom, 1982: 179, 203, 2005: 20, 181), as well as to the link between self-governance and covenants, it seems reasonable to think that she might have followed him in adopting a covenantal perspective.[18] But her remarks are suggestive rather than definitive; she does not explicitly state, in the way that Vincent Ostrom does, that adopting a covenantal approach demands a departure from the model of man as a utility-maximiser in favour of some other account of human motivation. The passage from Boyte *et al.* quoted above is something of a rarity in a paper with Elinor Ostrom listed as an author or co-author in acknowledging explicitly that individuals may have reasons for action that go beyond instrumental rationality. Thus, on the basis of the evidence provided so far, it is hard to be sure precisely what Elinor Ostrom's position was on the extent to which the motivations that drive people to engage in self-governance are reducible to instrumental rationality (cf. Miroiu and Dumitru, 2021: 97).

Although we will have more to say on this in the next section, one possible explanation for Ostrom's ambivalence lies in the way that she tends to focus on another reason why people might depart from utility-maximising behaviour. Her point – which is quite distinct from those made by Sen, Searle and Vincent Ostrom about how instrumental notions of rationality cannot do justice to the full role of reason in human conduct – concerns the complexity of the decision problem people face when they are seeking to devise a set of rules for governing their interactions with the resource. The source of the complexity lies in how the different combinations of rules between which people must choose affect outcomes. Ostrom contends that rules combine in a configural or interactive manner, in the sense that the way one rule operates, and (therefore) its effect on the outcome produced, is itself affected by the other rules alongside which it is used.[19] To take a simple example the rules that

---

the focus of inquiry … If attention is given only to preferences, there is a danger that "the whole moral and intellectual condition of a people" will be reduced to "intellectual dust", as Tocqueville asserted' (Ostrom, 1997: 99). See Ostrom (1997: 96–102, 107) for a more detailed critique of the use of 'universal' economic models of rational conduct to analyse non-market decision-making. Vincent Ostrom then goes on to argue in favour of using a broader 'framework' or account of the key features of social reality that need to be taken into account in theorising about and explaining aspects of the social world, but which are not always expressed as a formal model (1997: 102–05). This same distinction between frameworks and models also appears in the work of Elinor Ostrom (Lewis, 2021: 624–66).

[17]As Malik (2017: 118) writes, in an insightful and interesting study of the role played by the notion of 'covenant' in the thought of Vincent Ostrom, 'Social civic virtue based on … covenants is related to solidarity and concern for the other … [that] is not easily reducible to the calculation of individual self-interest'. In elaborating on the covenantal basis of the rules involved in self-governance, Vincent Ostrom also highlights the importance of people 'taking the perspective of the other as an act of imagination … and aspiring to impartiality' as they strive to agree upon a set of rules that will enable them to interact in mutually beneficial ways (1991: 65; also see Ostrom, [1991] 2012: 272–73, 1997: 94, 279–81). In emphasising the importance of adopting a position of impartiality, and in referring to Adam Smith's *Theory of Moral Sentiments* in the course of doing so, Vincent Ostrom shares significant common ground with Sen, for whom Smith's notion of the impartial spectator has an important role to play not only in human conduct in general (Sen, 1995: 24–26, 2010: 53–56; Rothschild and Sen, 2006: 357–58, 362) but also in his own account of the notion of justice (2009: 44–46, 124–52, 2010: 57–65). Indeed, as suggested in the main text, one way of thinking about the notion of a covenant as it appears in the work of Vincent Ostrom is to say that people who enter into covenantal agreements are making a commitment, in a Senian sense, to set aside the pursuit of their own self-goals and self-interest in favour of taking into account other people's interests and goals when deciding what rules to create to govern their interactions.

[18]Vincent Ostrom (1997: 262) suggests this. And, as Elinor Ostrom has said, 'There is no way you can write about my work without paying attention to the work of Vincent' (quoted by Toonen, 2010: 193).

[19]For Ostrom, therefore, rules are *not* atomistic in the sense of their combined impact simply being the sum of their individual impacts.

determine who is allowed to use a resource will, by influencing the kind of people who can gain access to it, affect the ease with which it is possible to monitor and punish users, thereby also affecting the kinds of information and payoff rules that are most appropriate (Ostrom, 2005: 239–41, 255–57). In Ostrom's opinion, this feature of rules has important consequences for people's ability to identify the optimal – which is to say, the expected utility-maximising – set of rules for their particular CPR. Given that several different kinds of rules need to be specified,[20] each of which can take various forms, the variety of possible rule combinations, and the complexity of the interactions between them, quickly surpasses people's powers of analysis. As Ostrom has written, 'it is impossible for … direct beneficiaries to conduct a complete analysis of the expected personal benefits, or broader performance, of all the potential rule changes' (Ostrom and Basurto, 2011: 324). In that case, it becomes impossible for individuals to identify an expected utility-maximising course of behaviour and the analyst 'needs to substitute the assumption of bounded rationality – that persons are "intendedly" rational but only limitedly so – for the assumptions of perfect information and utility maximisation' (2010b: 18; also see Kiser and Ostrom, 1982: 216–18). That is to say, people are viewed as being engaged in a trial-and-error process of experimenting with different combinations of rules, relying on various heuristics and rules-of-thumb as they do so, until they reach one deemed to be 'good enough' for their purposes (Ostrom, 1990: 34, 38, 58–59, 190–91, 208–09, 1999: 496, 508–09, 523, 2005: 102–09, 270–71, 2010a: 659–61).

It is this aspect of the problem of self-governance – the way that the complexity of the decision problem involved in identifying the requisite set of rules undermines the possibility of maximising behaviour – that occupies most of Ostrom's analytical attention, not the ethical considerations emphasised in Sen's critique of rational choice theory and Vincent Ostrom's discussion of covenantal decision-making. Moreover, it is the epistemic challenge of dealing with decisions of such complexity that leads her to emphasise the importance of polycentric systems[21] in permitting people to experiment with different combinations of rules, and to learn from similar efforts made by other groups, until they find one that yields what they regard as being an acceptable outcome.[22] When viewed in this light, Sen and Vincent Ostrom's analyses of why people might depart from utility-maximising behaviour, setting aside the self-goal of satisfying their individual preferences because of a recognition of the normative significance of the goals of the other members of their community, might well have seemed peripheral to Elinor Ostrom, simply because in her view the epistemic challenges involved in identifying the relevant set of rules make utility-maximising behaviour impossible in that sphere of activity anyway. In this way, as Beckert (1996: 818) puts it, an emphasis on epistemological issues makes it possible to 'transcend[.] the dichotomy of rational versus irrational action itself' because under conditions of (radical) uncertainty and bounded rationality 'it becomes ex ante impossible to determine whether a chosen means is rational or irrational for the achievement of the goal of optimising or maximising' (also see pp. 819–23).

Behaviour within rules

We move on now to consider Elinor Ostrom's account of how people behave once a workable set of operational rules has been put in place; that is, we consider how she understands people making decisions about how much of a resource to consume, and how much to invest in it, *within* a framework of

---

[20]Ostrom identifies seven different kinds of rules that are important in sustaining self-governance (Ostrom, 2010b: 13; also see Ostrom, 2005: 193–210, 223–36).

[21]A polycentric system of governance is one where the members of a community enjoy significant autonomy to decide upon the operational rules governing their interactions with a CPR. That autonomy enables people to tailor their choice of rules to their local knowledge of their circumstances, to experiment with different combinations of rules, and to learn from other groups how to improve the system of rules upon which they rely, thereby at least sometimes producing outcomes superior to those generated by central government intervention (Ostrom, 1990: 133–42, 182–216, 1999: 497, 508–21, 525–30, Ostrom, 2005: 239–45, 281–86). For an overview of the evolution of this concept, see Aligica and Tarko (2011).

[22]'Instead of the narrow model of individual rationality that is useful in explaining behaviour in highly competitive markets, we need to base our instruction on a theory of human behaviour that sees all humans (including government officials) as fallible, having the capacity to learn, and as using heuristics and norms to cope with the immense complexity of interactive life' (Ostrom, 1998: 3).

given operational rules. In this scenario, Ostrom seems to adopt a broad model of rational action whereby people face sufficiently well-structured ('small-world') decision problems that they can behave as expected utility-maximisers (2010a: 659–61).

However, while relying on a model of people as utility-maximisers in her analysis of within-rule choice, Ostrom nevertheless contends that people have 'complex motivational structures' (2010a: 641; also see 1998: 2). More specifically, she argues that satisfactory explanations of observed cases of self-governance require an acknowledgement that people are not simply short-term maximisers who focus only on their own material well-being ('rational egoists'). Rather, in her view, in deciding how to act people take into account more than just external material incentives, such as those provided by the prospect of consuming a particular quantity of a resource. Their decisions also often reflect the intrinsic satisfaction derived both from adhering to social rules (i.e. the value of adhering to what she describes as 'social norms'[23]) and also from the welfare of other people (reflecting the fact that people often have 'other-regarding preferences') (Ostrom, 1990: 34–38, 88–89, 205–07, 1998: 2–3, 136–38, 2005: 52–53, 109–13, 116–19). The lesson Ostrom gleans from her fieldwork on self-governance and from laboratory experiments is that 'human beings are neither all-knowing saints nor devilish knaves … humans have complex motivations including narrow self-interest as well as norms of proper behaviour and other-regarding preferences' (2005: 132, 119; also see Ostrom, 1998: 9).[24]

The fact that this 'very broad conception of rational action' (1990: 37) remains confined to the instrumental model of rational conduct as utility maximisation is indicated by the way Ostrom represents the motivation provided by normative considerations associated with rule-following. She does so by means of a 'delta parameter', whereby a certain amount is added to (or subtracted from) a person's payoffs if they follow (or break) social rules. As she writes, 'Norms can be represented in formal analysis as a delta parameter that represents the intrinsic benefits or costs of observing a normative prescription in a particular situation' reflecting motivations such as 'pride when keeping a norm or guilt when breaking a norm' (Ostrom, 2005: 121–22, 146–48, 173–74; also see Ostrom, 1998: 9 and Crawford and Ostrom, 1995: 587–88, 590). The contrast with Sen, according to whom people's commitment to social rules can lead them to departing from the pursuit of preference satisfaction and pay-off maximisation, is clear. And it is to a summary of the similarities and differences between Sen and Ostrom on these issues that we now turn our attention.

Ostrom's understanding of practical reason: a Senian analysis

In this section, we draw on Sen's account of the various aspects of rational conduct, outlined in the section 'Sen on rationality' found above, to summarise our views of the role assigned by Elinor Ostrom to reason in people's decision-making. Recall from that section that Sen distinguishes between self-centred welfare (A's welfare depends only on A's consumption), self-welfare goal (A's only goal is to maximize his welfare) and self-goal choice (A's choices are guided primarily by A's own goals).

First of all, we note that Ostrom clearly departs from the notion of self-centred welfare. This is because, as explained above, she argues that it is possible to explain successful efforts at self-governance only if it is acknowledged that people have other-regarding preferences, whereby an agent's welfare is affected not only by her material consumption but also by both the satisfaction to be had

---

[23]'Norms of behaviour reflect valuations that individuals place on actions or strategies in and of themselves, not as they are connected to immediate consequences' (Ostrom, 1990: 35).

[24]In considering within-rule choice, Ostrom argues that people's decisions about whether or not to cooperate are typically conditional on how they expect others to behave, so that people will cooperate by moderating their consumption and investing in a CPR so long as they believe other people will reciprocate by behaving cooperatively themselves. This reflects what Ostrom takes to be an important facet of human behaviour, namely that, 'No one wants to be a "sucker", keeping a promise that everyone else is breaking' (1990: 44, 43–45, 94–100, 1998: 10–13). It follows, Ostrom argues, that cooperation is more likely when the operational rules governing behaviour make it easier for individuals to monitor whether other people are complying with the rules. In such cases, 'the possibility of being played for a "sucker" … is reduced', thereby helping to ensure that 'the payoff for cooperating exceeds the payoff from defecting' so that cooperation becomes the utility-maximising choice (Ostrom *et al*., 1994: 297; also see Ostrom, 1990: 43–45, 94–100 and Ostrom *et al*., 1994: 295–99).

from following rules and also by the welfare of other people. To use Sen's terminology, acknowledging the salience of other-regarding preferences introduces Smithian sympathy into the analysis and allows for a broader set of motivational drivers in rational choice theory.[25]

However, and this is our second point, both the aforementioned aspects of pro-social behaviour are consistent with the assumption of self-welfare goals. In such cases, when a person acts to maximize his or her own welfare, concern for the welfare of others only enters indirectly into the agent's welfare (via Smithian 'sympathy'). In Ostrom's analysis, the only goals a person strives to pursue are ones that concern his or her own welfare (while accepting that his/her welfare is affected both by other people's welfare and also by the satisfaction to be had from following accepted social rules and/or the guilt from violating them). Ostrom's use of a 'delta parameter' to model the motivational force provided by social rules, whereby amounts are added to or subtracted from a person's payoffs according to whether they adhere to or break accepted rules, is a stark illustration of this point (Crawford and Ostrom, 1995: 587–88). In other words, the delta parameter does not affect the agent's reasons for acting in one way or another, it only affects the payoffs faced by him/her. Even though she recognises that the delta parameter might express motivations different from the pursuit of an agent's own welfare (e.g. she mentions moral duty, or simply duty, as a possible conceptualisation of such a parameter), the way the behaviour in question is modelled seems to assume that these other motivations are compatible with the idea of self-centred welfare, or, in other words, these other motivations are inseparable from a person's welfare. In contrast, Sen is more willing to introduce a wedge between preferences and welfare, such as when an agent acts *as-if* she had a preference ordering that corresponds to the assurance game, even when she is faced with a PD-type situation.

Third, and finally, Ostrom's account of rational conduct is, we have argued above, one in which people's choices are made in accordance with his or her own goals. While Ostrom on rare occasions flirts with the idea that doing justice to the role of reason in human conduct requires a departure from self-goal choice, the balance of the textual evidence discussed above suggests that, in her view, rational conduct involves identifying the best means of achieving goals that the individual herself has chosen (rather than involving people displaying a commitment, in Sen's sense, to social rules). To put it differently, Ostrom does not seem willing to accept, as Sen does, that there are occasions when an agent's goals may include ends other than the maximization of his/her own welfare, nor that agents might be willing to behave *as if* they had a different preference ordering so as to achieve a more cooperative outcome. In other words, unlike Sen, Ostrom seems committed to a view of rational action which precludes the possibility that agents might have reasons for action that are independent of an agent's preferences.[26] The possibility of departing from the assumptions of self-welfare goal and self-goal choice seems to require such a wedge between preferences and welfare, or, in Sen's words, 'a dichotomy between revealed preferences and welfare would seem to be necessary' (1974: 61; see also 1977: 329). Where Ostrom departs from the assumption of expected utility-maximising behaviour, as she does in her analysis of the choice of rules people use for self-governance, it is because – in her view – the complexity of such decisions makes maximising behaviour impossible, not because of a recognition of the moral issues captured by Sen's notion of commitment.[27] And in her account of people's conduct once those rules have

---

[25]Like Ostrom, Sen (1987: 83) also alludes to the possibility of rule-following being intrinsically important to people, which presumably involves a violation of self-centred welfare but not of self-welfare goal or self-goal choice because the individual's welfare is affected by the satisfaction gained from following the rule. But, as noted in the section on 'Sen on rationality' found above, he also argues that rule-following can involve people deviating from self-goal choice.

[26]As an anonymous reviewer suggested, one possible explanation why Ostrom might have held to the assumption of self-goal choice was to avoid an inconsistency in terms of preference orderings. After all, most economists would find problematic the possibility that an agent voluntarily acted against his or her preferences. As noted in footnote 8, however, both Sen and Searle seem to endorse an account of collective intentionality which presupposes the existence of reasons for action which are preference independent (see our comment on how this involves taking sides on the debate about external and internal reasons for action in the philosophy of action).

[27]When the decision-making context is less complex, on Ostrom's account, it makes perfect sense to model actors as having perfect information and, therefore, as capable of utility-maximizing (see Ostrom, 2000: 139).

been established, Ostrom continues to portray people as instrumental maximisers, albeit of utility functions whose arguments extend well beyond material consumption to include a concern for the welfare of others and the intrinsic satisfaction of following rules.[28]

Conclusion

In the introduction to this paper, we noted that the literature on Elinor Ostrom contains divergent interpretations about the extent to which she remains committed to, or departs from, the standard model of rational choice. Against that background, this paper has explored the notion of rationality, and the account of reason in rational conduct, adopted by Ostrom in her work on the self-governance of CPRs. It uses as a conceptual lens the typology of dimensions of rational conduct advanced by Amartya Sen, according to whom self-interested behaviour has three independent, and separable, features: self-centred welfare, self-welfare goal and self-goal choice. The argument presented above suggests that, in her account of how people behave within a given framework of operational rules, Ostrom is committed to a version of rational choice theory that retains the assumptions of self-welfare goal and self-goal choice but, by acknowledging that people's welfare is affected by factors beyond their material consumption, departs from the assumption of self-welfare goal. Put slightly differently, Ostrom's analysis embraces the Senian notion of 'sympathy' but not his notion of commitment (which involves people acting in ways that are inconsistent with the notion of self-goal choice). Where Ostrom does depart from the analysis of rational conduct as centring on preference satisfaction and expected utility-maximisation is in her account of how people choose the operational rules that facilitate self-governance. But this departure is driven, not by an acknowledgement along Senian lines that people may have reasons to set aside the single-minded pursuit of their own goals but rather because of Ostrom's belief that the decision problem people face is so complex that maximising behaviour is rendered impossible. In this regard, Elinor Ostrom's position differs not only from Sen but also from the view of her husband and long-time collaborator Vincent, who in his analysis of the covenental aspects of rule-making departs from the assumptions of instrumental rationality and preference-satisfaction.[29]

Ultimately, the differences between Sen and Elinor Ostrom seem likely to reflect the different intellectual backgrounds from which they emerged. Sen's analysis of rational conduct has been shaped, in significant part, by his sustained engagement with the writings of Adam Smith, in particular – as Sen sees it – Smith's view that people 'have many different motivations, taking us well beyond the single-minded pursuit of our self-interest' and that some of these can 'restrain the unique dominance of the single-minded pursuit of our own goals' (Sen, 2009: 191–92, 185–93; also see Sen, 2010: 53–56 and Sen et al., 2020: 13). In contrast, a key influence on Elinor Ostrom's intellectual development was provided by the Virginia strand of public choice theory developed by James Buchanan, with its emphasis on the unromantic assumption that people pursue their self-interest in all contexts (Aligica, 2015; Aligica et al., 2017: ix–x; Tarko, 2021: 47). These different influences – one emphasising the variety of motivations that drive people to act, the other the universality of self-interested conduct – may help to account for the differences between them. And while, as illustrated by the discussion of covenental behaviour offered above, Vincent Ostrom in particular became increasingly sceptical about the idea that a single model of rational conduct is valid for the analysis all kinds of decision-making

---

[28]It might well be the case that the practical significance of the differences highlighted above in terms of accounting for social outcomes is relatively small (we thank an anonymous reviewer for pointing this out). However, our main purpose in this paper is to highlight the differences between Sen and Ostrom regarding the *nature* of practical reason, rather than to account for the relative explanatory power of these accounts.

[29]It follows, therefore, that commentators such as Lara (2015: 582) are only partially right in arguing that '[l]ike Sen (1977) and many other scientists, Ostrom rejects the idea that selfishness and opportunism are the only rationality expressed by the individual. There are other human motivations that must be taken into account'. This statement is true insofar as both Ostrom and Sen acknowledge that people's utility is affected by influences such as the intrinsic desire to follow social rules and the welfare of others about whom one cares (i.e. Senian 'sympathy'). But what Ostrom does not do, so far as we can discern, is to follow Sen in using the notions of commitment, whereby people are conceptualised as departing from the notion of self-goal choice such that a wedge is driven between individual preference and actions.

(McGinnis and Ostrom, 2012: 19–21), the analysis presented in this paper suggests that Elinor Ostrom remained committed, if only implicitly, to at least one important feature of standard rational choice theory, namely the assumption of self-goal choice, rather than following Sen in arguing that people can have good reasons to act in ways that involve them going beyond the pursuit of their own goals (cf. Sen, 2009: 189–91).[30]

References

Aligica P. (2015) Public administration, public choice and the Ostroms: The achievements, the failure, the promise. *Public Choice* **163**, 111–127.

Aligica P.D. and Tarko V. (2011) Polycentricity: From Polanyi to Ostrom, and beyond. *Governance* **25**, 237–262.

Aligica P., Lewis P. and Storr V. (2017) Austrian economics and the Bloomington school: An introduction and overview. *Advances in Austrian Economics* **22**, ix–xxxi.

Allen B. (2005) *Tocqueville, Covenant, the Democratic Revolution.* Lanham: Lexington Books.

Arena R. and Lawson T. (2015) Introduction. *Cambridge Journal of Economics* **39**(4), 987–992.

Beckert J. (1996) What is sociological about economic sociology? Uncertainty and the embeddedness of economic action. *Theory and Society* **25**, 803–840.

Boyte H., Elkin S., Levine P., Mansbridge J., Ostrom E., Sotan K. and Smith R. (2014) The new civic politics: Civic theory and practice for the future. *The Good Society* **23**, 206–211.

Bratman M. (1992) Shared cooperative activity. *Philosophical Review* **101**(2), 327–341.

Cole D. and Grossman P. (2010) Institutions matter! Why the Herder problem is not a Prisoner's Dilemma. *Theory and Decision* **69**, 219–231.

Crawford S. and Ostrom E. (1995) A grammar of institutions. *American Political Science Review* **89**, 582–599.

Davis J. (2007) Identity and commitment: Sen's fourth aspect of the self. In Peter F and Schmid H (eds.), *Rationality and Commitment.* Oxford: Oxford University Press.

Finlay S. and Schroeder M. (2017) Reasons for action: Internal vs. external. The Stanford Encyclopedia of Philosophy (Fall 2017 Edition), Edward N. Zalta (ed.). Available at https://plato.stanford.edu/archives/fall2017/entries/reasons-internal-external/.

Gilbert M. (1989) *On Social Facts.* London: Routledge.

Hardin G. (1968) The tragedy of the commons. *Science* **168**, 1243–1248.

Kiser L. and Ostrom E. ([1982] 2000) The three worlds of action: A metatheoretical synthesis of institutional approaches. In McGinnis M (ed.), *Polycentric Games and Institutions: Readings from the Workshop in Political Theory and Institutional Analysis.* Ann Arbor: University of Michigan Press.

Lara A. (2015) Rationality and complexity in the work of Elinor Ostrom. *International Journal of the Commons* **9**, 573–594.

Lewis P.A. (2017) The Ostroms and Hayek as theorists of complex adaptive systems: Commonality and complementarity. *Advances in Austrian Economics* **22**, 35–66.

Lewis P.A. (2021) Elinor's Ostrom's 'realist orientation': An investigation of the ontological commitments of her analysis of the possibility of self-governance. *Journal of Economic Behavior and Organisation* **189**, 623–636.

Lewis P.A. (2022) The Bloomington school as seen from Virginia: Levels of analysis; social ontology; schools of thought; and policy implications. *Cosmos and Taxis* **10**(3 and 4), 71–85.

Lewis P.A., Moura M.G. and Runde J. (2020) Ontology and the history of economic thought: An introduction. *Cambridge Journal of Economics* **44**(5), 981–990.

Malik A. (2017) Covenant and moral psychology in polycentric orders. *Advances in Austrian Economics* **22**, 107–132.

Martins N. (2009) Rules, social ontology and collective identity. *Journal for the Theory of Social Behaviour* **39**, 323–344.

McCloskey D. (2022) *Beyond Positivism, Behaviorism, and Neoinstitutionalism in Economics.* Chicago and London: The University of Chicago Press.

McGinnis M. and Ostrom E. (2012) Reflections on Vincent Ostrom, public administration, and polycentricity. *Public Administration Review* **72**, 15–25.

Miroiu A. and Dumitru A. (2021) Foundations of social order: The Ostroms and John Searle. In Lemke J and Tarko V (eds.), *Elinor Ostrom and the Bloomington School: Building a New Approach to Policy and the Social Sciences.* Newcastle upon Time: Agenda Publishing.

Ostrom V. (1980) Artisanship and artifact. *Public Administration Review* **40**, 309–317.

Ostrom E. (1986) An agenda for the study of institutions. *Public Choice* **48**(1), 3–25.

Ostrom E. (1990) *Governing the Commons: The Evolution of Institutions for Collective Action.* Cambridge and New York: Cambridge University Press.

Ostrom V. (1991) *The Meaning of American Federalism: Constituting a Self-Governing Society.* San Francisco: ICS Press.

Ostrom V. ([1991] 2012) Some ontological and epistemological puzzles in policy analysis. In Ostrom V (ed.), *The Quest to Understand Human Affairs, Volume 2: Essays on Collective, Constitutional, and Epistemic Choice*. Lanham, MD: Lexington Books.

Ostrom E. (1993) Covenanting, co-producing, and the good society. *Newsletter of the PEGS* 3(2), 7–9.

Ostrom V. (1997) *The Meaning of Democracy and the Vulnerability of Democracies: A Response to Tocqueville's Challenge*. Ann Arbor: University of Michigan Press.

Ostrom E. (1998) A behavioral approach to the rational choice theory of collective action. *American Political Science Review* **92**, 1–22.

Ostrom E. (1999) Coping with tragedies of the commons. *Annual Review of Political Science* **2**, 493–535.

Ostrom E. (2000) Collective action and the evolution of social norms. *Journal of Economic Perspectives* **14**(3), 137–158.

Ostrom E. (2005) *Understanding Institutional Diversity*. Princeton and Oxford: Princeton University Press.

Ostrom E. (2006) Converting threats into opportunities. *PS: Political Science and Politics* **39**, 3–12.

Ostrom E. (2007) Engaging impossibilities and possibilities. Available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1304701 (accessed 21 September 2021).

Ostrom V. (2008) *The Political Theory of the Compound Republic: Designing the American Experiment*. Lanham: Lexington Books.

Ostrom E. (2009) Engaging with impossibilities and possibilities. In Basu K and Kanbur R (eds.), *Arguments for a Better World: Essays in Honour of Amartya Sen, Volume 2: Society, Institutions, and Development*. Oxford: Oxford University Press.

Ostrom E. (2010a) Beyond markets and states: Polycentric governance of complex economic systems. *American Economic Review* **100**, 641–672.

Ostrom E. (2010b) A long polycentric journey. *Annual Review of Political Science* **13**, 1–23.

Ostrom E. and Basurto X. (2011) Crafting analytical tools to study institutional change. *Journal of Institutional Economics* **7**, 317–343.

Ostrom E., Gardner R. and Walker J. (1994) *Rules, Games, and Common-Pool Resources*. Ann Arbor: University of Michigan Press.

Rothschild E. and Sen A. (2006) Adam Smith's economics. In Haakonssen K (ed.), *The Cambridge Companion to Adam Smith*. Cambridge: Cambridge University Press.

Schmidtz D. (1994) Choosing ends. *Ethics* **104**(2), 226–251.

Searle J. (1969) *Speech Acts: An Essay in the Philosophy of Language*. New York: Cambridge University Press.

Searle J. (1990) Collective intentions and actions. In Cohen P, Morgan J and Pollack M (eds.), *Intentions in Communication*. Cambridge, MA: The MIT Press.

Searle J. (1995) *The Construction of Social Reality*. London: Penguin Books.

Searle J. (2001) *Rationality in Action*. Cambridge, MA: MIT Press.

Sen A. (1974) Choice, orderings and morality. In Körner S (ed.), *Practical Reason*. Oxford: Blackwell, 54–67.

Sen A. (1977) Rational fools: A critique of the behavioural foundations of economic theory. *Philosophy and Public Affairs* **6**, 317–344.

Sen A. (1984) *Resources, Values and Development*. Cambridge, MA: Harvard University Press.

Sen A. (1985) Goals, commitment, and identity. *Journal of Law, Economics, and Organization* **1**, 341–355.

Sen A. (1987) *On Ethics and Economics*. Oxford: Blackwell Publishing.

Sen A. (1995) Moral codes and economic success. In Brittan S and Hamlin A (eds.), *Market Capitalism and Moral Values*. Cheltenham: Edward Elgar.

Sen A. (2002) *Rationality and Freedom*. Cambridge, MA: Harvard University Press.

Sen A. (2009) *The Idea of Justice*. London: Allen Lane.

Sen A. (2010) Adam Smith and the contemporary world. *Erasmus Journal for Philosophy and Economics* **3**, 50–67.

Sen A., Deaton A. and Besley T. (2020) Economics with a moral compass? Welfare economics: Past, present and future. *Annual Review of Economics* **12**, 1–21.

Smith A. ([1790] 1974) *The Theory of Moral Sentiments*, ed. D. Rapheal and A. Macfie. Oxford: Clarendon Press.

Tarko V. (2017) *Elinor Ostrom: An Intellectual Biography*. London and New York: Roman and Littlefield.

Tarko V. (2021) Elinor Ostrom as a behavioural economist. In Lemke J and Tarko V (eds.), *Elinor Ostrom and the Bloomington School: Building a New Approach to Policy and the Social Sciences*. Montreal & Kingston: McGill-Queen's University Press, 47–69.

Tarko V., Schlager E. and Lutter M. (2019) The Faustian Bargain: Power-sharing, constitutions, and the practice of polycentricity in governance. In Thiel A, Blomquist W and Garrick D (eds.), *Governing Complexity: Analyzing and Applying Polycentricity*. Cambridge: Cambridge University Press.

Toonen T. (2010) Resilience in public administration: The work of Elinor and Vincent Ostrom from a public administration perspective. *Public Administration Review* **70**, 193–202.

Tuomela R. and Miller K. (1988) We-intentions. *Philosophical Studies* **53**, 367–389.