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Book Review

Poteete, A. R., M. A. Janssen and E. Ostrom. 2010. Working Together: Collective Action, the Commons, and Multiple Methods in Practice. Princeton, NJ: Princeton University Press.

Reviewed by Alex Smajgl, CSIRO Sustainable Ecosystems.

This book masters the challenge of triangulating theoretical, empirical and methodological dimensions of research on commons without getting lost in any domain details. The authors set the scene by highlighting what methodological problems characterise current research, for instance single method constraints, methodological dogmatism, and lack of cooperation. The reader gets a very effective introduction into various facets of the methodological problem.

Chapters 2–5 look into principal ways to derive empirical evidence. This part of the methodological discussion also provides an excellent overview on the current state of research on commons by providing insights into numerous case studies. This part starts with approaches that involve individual case studies and points out that such work allows for an in-depth analysis but it does not allow for synthesising findings readily applicable to other areas. Hence, the next three chapters discuss research involving multiple case studies. Here, the authors distinguish between Broadly comparative field-based research, Meta-analysis, and Collaborative field studies. This distinction opens an interesting scale for research designs incorporating multiple case studies. Broadly comparative field-based research defines the design and implementation of research that involves multiple case studies while meta-analysis describes the analysis of already concluded research. Clearly, in many situations there is no choice as a particular set of research questions cannot be addressed by existing or available data. However, meta-analysis could be undertaken as a complementary part of all research projects that propose to conduct their own case study work. The authors emphasise limitations of a meta-analysis but suggest conducting such a synthesis to inform new research; methods such as experiments and agent-based modelling could be applied to test some of the meta findings and help designing new case

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study-based research. Joining forces through collaborative field work is suggested by the authors as another strategy to help increase the number of case studies. The experiences described in this chapter highlight how this strategy might provide the best potential to improve our understanding of commons and collective action. But effective collaboration is also difficult to achieve and it seems imperative to get the timing right, for instance by synchronising funding opportunities to ensure collaborative processes.

Chapters 6-8 provide methodological details for experiments and agent-based modelling. These chapters provide an excellent summary for researchers to develop a good understanding of the potential and the limitations of these particular methods. Most of the examples are focused on understanding how individual behaviour is influenced by various contextual changes. A second reading allows for mapping these examples into the ontological framework provided in Chapter 9. In other words, the framework provides additional structure for designing agent-based models or experiments and higher precision in feeding back analytical results into theory development. Such work on understanding influences of contextual variables on individual behaviour is an important perspective. Interestingly, a few examples show that modelling can also contribute to our understanding of the dynamics of crucial contextual variables themselves. For instance, agent-based modelling can develop a computational laboratory for observing how governance variables respond to the behaviour of individuals (Janssen 2005; Smajgl et al. 2008, 2010). Observing such dynamics in field work is problematic and provides an effective niche for agent-based modelling and experiments. In Chapter 8 the authors point to the empirical challenges facing agent-based modelling (Smajgl et al. in review; Janssen and Ostrom 2006) and what processes can help overcoming these challenges.

The step from evidence-focused field methods to experiments and agent-based modelling as particular methods could be strengthened by discussing a broader range of methods against the backdrop of typical contexts of collective action and commons-related research. Readers can perhaps anticipate an improved guide to method selection in the second edition. Undoubtedly, such a bridging discussion would have confirmed laboratory and field experiments and agent-based modelling as the most promising methods for the context of commons and collective action. However, a structured discussion on methodological choice could have provided the reader with basic knowledge of a broader suite of methods, which is precisely what the authors recommend in their final chapter. The Introduction explores systematic method selection, but many readers might ask why agent-based modelling was chosen over for instance Bayesian Belief Networks or Social Network Analysis.

In summary, parts one to three present an excellent combination of methodological and commons-related insights making it an excellent handbook to gain sufficient understanding of the context of commons research, as well as sufficient detail on the available methods. The test is balanced, the authors avoiding the temptation to provide too much detail on methods. Valuable references guide the reader to necessary details.

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Most similarly structured books fail to proceed beyond the two-dimensional overview on research domain and relevant methods. This book, however, impresses by going a step further. The final chapters elegantly link back to the theory of collective action and the commons. The synthesis develops and elaborates on an extended framework for analysing social-ecological systems. The final chapter revisits the link between commons research methods and theory, calling for more interdisciplinary, collaborative and multi-method research.

The authors define in the tradition of systems theory three main scales required to analyse collective action situations: the individual, the 'microsituational' context and the broader social-ecological context. By developing these scales the *context* of individual decision-making steps out of the usually amorphous background and becomes structured into two separate scales. Additionally, a list of developed "microsituational variables" provides the reader with a potentially generic list of factors that could drive individual behaviour in collective action situations. At a higher scale the broader context is determined by another set of variables that constitute the broader social-ecological context (Ostrom 2007, 2009). While this systematic approach is not only progressing theoretical work on commons and collective action it also ensures comparability of multiple case studies and it allows agent-based modellers to link their work to theory as structures can guide model design. It is unfortunate that the distinction between scales is not entirely clear. The ontological SES framework introduces three tiers: the first tier identifies resource users, the second tier defines the immediate context and consist of variables that specify the Resource System, Resource Units, the Governance System, and Users. The broader context is defined in the third tier through two types of variables, the Social, Economic, and Policy Setting, and Related Ecosystems. The concept of a microsituation seems to be inserted at the second tier but without clearly relating the variables. There seems to emerge some overlap between second tier variables and microsituational variables. Additional misunderstanding is introduced by identical variable names for microsituational variables and for Social, Economic and Policy Settings. Merging the two complementary research dimensions would have improved clarity and consistency. Nevertheless, this chapter provides important progress in developing a structure for better understanding determinants in collective action situations.

The challenges for future research provide an excellent discussion of research questions, including the fact that it is not only about identifying the relevant contextual variables for individual behaviour but also about gaining an improved understanding on how these contextual variables relate to each other. In particular from a policy perspective priorities tend to shift towards contextual variables that can actually be influenced, i.e. governance variables. Focussing on cross-relationships between contextual variables and adding them to a generic framework seems a critical research challenge. Advancing such an agenda requires evidence from diverse contexts and processes for feeding back the empirical findings into

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theory development, emphasising the iterative nature of this vision. Symbiotic improvements of an ontological framework evidently informed by case study work, while experimental work and agent-based modelling generate catalytic insights into contextual or behavioural variables. Clearly, this is an agenda for a larger community and comes back to the main message of this excellent book, the need for *working together*.

The final chapter brings all the pieces of the puzzle together and synthesises not only the challenges but identifies also strategies for progressing research on commons and collective action. The message is clear that the most promising path involves the concerned research community to work better together.

Working together is an excellently written and comprehensive book that targets a large readership as the authors offer insights for new students as well as for experienced researchers. I hope that this book will also be read by relevant research managers and relevant staff from donor agencies as our ability to work together depends to some extend on how research funding is facilitated.

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