Sustainability Science (2025) 20:307–314
https://doi.org/10.1007/s11625-024-01582-7

NOTE AND COMMENT

Building ethical awareness to strengthen co-production for transformation

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Received: 16 June 2024 / Accepted: 29 September 2024 / Published online: 11 November 2024
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Abstract

Awareness of different ethical theories can support transformation-oriented researchers in navigating value-based decisions in co-production. We synthesize and explicitly link the literature on co-production and ethical theories in philosophy to initiate this awareness. Four key decision points in co-production projects are outlined that require value-based actions: (1) what to focus on, (2) who to include, (3) how to co-create and (4) how to continue. To discuss how project actions can be examined from different ethical perspectives, we synthesize the claims of four ethical theories and discuss them in the context of co-production project choices. The four ethical theories are: deontological ethics, utilitarianism, contractualism and virtue ethics. Overall, we argue for embracing pluralistic ethical perspectives when navigating decisions in co-production projects.

Keywords Ethics · Ethical values · Morality · Co-creation · Co-production

Introduction

Transformative changes—towards both negative and positive developments—are occurring worldwide within our interconnected human–environment systems. In response, there is increasing interest in transformation-oriented research to better understand these changes, coupled with the desire to create action-oriented knowledge to guide transformative change processes towards sustainable and ethical futures (Reed et al. 2023; Hölscher et al. 2021; Wiek and Lang 2015). One key feature of transformation-oriented research is the commitment to co-production practices through science–society partnerships to intervene in human–environment systems in a way that intentionally transforms their structure and function towards a more sustainable future (Abson et al. 2017). Co-production—and its methods, modes and practices—refers to active collaborations within science and between science and society to conduct joint activities such as to develop common problem understandings, take actions, produce knolwedge and reshape narratives (Chambers et al. 2021; Wyborn et al. 2019). Within science, this often refers specifically to knowledge co-production across disciplines and thematic backgrounds (i.e., interdisciplinarity) and extends to transdisciplinary engagement when societal actors are involved, making it a central approach for research on transformations to sustainability (Bandola-Gill et al. 2023; Chambers et al. 2021; Norström et al. 2020; Polk 2015; Turnhout et al. 2020; West et al. 2019).

Ethical values are involved in every intentional human action. Thus, they are also central tenets of scientific action, and arguably even more important in transformative research and co-production approaches (Horcea-Milcu et al. 2019; Köhler et al. 2019; Schneidewind et al. 2016). We define ethical values in a very broad way as the orienting moral principles, attitudes or goals that guide an action. These can serve as criteria by which an action, a person, an institution or a system of rules are ethically evaluated. Consequently, ethical values are intertwined with the goals and means of co-production (i.e., the why and how) and often manifest as our actions and their consequences, ultimately shaping

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transformative change processes. The mechanisms of translating values into action—and vice versa, as well as the so-called 'direct link' between knowledge co-production and actions-in-practice, remain contested and vary across projects (Harvey et al. 2019; Lemos et al. 2018; Vincent 2022). For example, the tendency of researchers to guide co-production towards filling knowledge gaps can hinder other types of collective action outcomes such as reframing narratives or building institutions (Chambers et al. 2021). It is important to understand how the different values and goals of researchers shape co-production actions, decisions, processes and outcomes differently, which can range from pragmatic and critical, to ambitious and radical (Eaton et al. 2022; Jagannathan et al. 2020). The mirroring of these values in co-production decisions and activities can be both direct or indirect, implicit or explicit, ultimately shaping project processes and impacts (West et al. 2019; Popa and Guillermin 2017). However, the literature on co-production and transformation research has largely overlooked the role of ethical values in unpacking these evident issues.

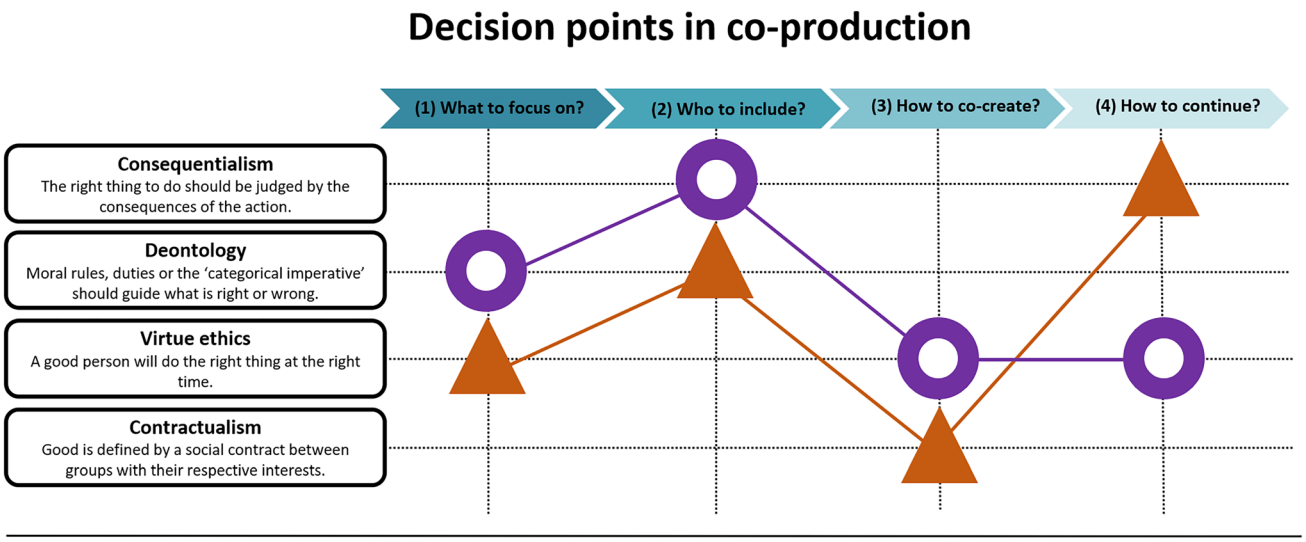
Ethical awareness can strengthen our rationale for how and why co-production can be transformative and impactful by providing a toolkit, which we define as a collection of practical resources, including key concepts, principles, and methods designed to assist the analysis ethical issues and navigating moral dilemmas (Baggini and Fosl 2024). This is important because ethical theories give us arguments and reasoning for evaluating the moral quality of different types of actions. Although ethical theories are not context specific—which co-production projects almost always are—they offer valuable claims, principles and arguments for unpacking the ethical implications of different choices to guide context-specific reflections. Many ethical theories exist—including Eastern, Western, Southern, modern and ancient schools of thought—offering a plurality of claims and perspectives. However, they all struggle to conclusively explain the ethical dimensions and the applicability of their claims across a wide range of contexts and possibilities to most people, specifically in settings where co-production occurs. Awareness of different ethical theories, however, can enable pluralistic ethical dialogues and critical reflection to emerge, although it is not a prerequisite for having and acting on ethical values. Indeed, such philosophical dialogue has been shown to support stakeholders when researchers navigate their plural and divergent values to improve collaborative potential on environmental issues (Laursen et al. 2021).

In this article, we showcase how awareness of different ethical theories and concepts can enable reflective choices and strategies to address four decision points in co-production. We explore how a limited—but prominent and contrasting—set of four ethical theories can reveal the implicit values embedded in a co-production process, and hence enable transparent engagement with their ethical implications. The four ethical theories are: utilitarianism, deontological ethics, virtue ethics and contractualism. Without relativizing their different moral implications, we argue that these ethical theories—and knowledge of other theories not included here—can support transformation-oriented researchers in guiding, diversifying, evaluating and ultimately critically reflecting on the moral mechanisms and consequences of actions in co-production projects. This exercise—including the selection of theories and decision points—is meant to exemplify the usefulness of a plural approach to ethics, showing that knowledge of multiple theories and perspectives enables richer analytical and reflective as well as dialogue experience that can improve navigation of co-production decision points. We do not intend to prescribe what theories are most helpful, or which decision points are most consequential, but demonstrate the value and process of plural ethical awareness. In doing so, we encourage increased engagement with ethical theories to strengthen the nexus between philosophy, transformation-oriented research and co-production.

Navigating co-production decisions: four ethical theories and their respective implications

Researchers engaged in co-production projects are confronted with a wide range of decision points, especially when implicit and explicit ethical values play a significant role in shaping the transformative potential of the work. Researchers may also be biased to their own values or positionality oriented ethical perspectives based on their culture, funding landscape, publication culture, existing research and stakeholder networks, and much more (see a collection of cases in Wittmayer et al. 2024). In transformation-oriented research, underlying values tacitly serve as a motivation for decision-making—whether conscious or subconscious. However, acknowledging this influence and examining it with critical reflection is not a widespread practice (Popa et al. 2015). Below, we outline how plural value considerations shape choices and consequences across four typical decision points in transformative knowledge co-production research. We then reflect on how one or more ethical theories may evaluate the issue. In doing so, we reference the four ethical theories summarized in Boxes 1, 2, 3, 4.[1] In Panel 1, we offer two brief but contrasting empirical examples of two co-production projects that reflected different ethical logics at each decision point.

[1] There are many resources available to engage more deeply with different ethical theories. A useful starting point is the Stanford Encyclopedia of Philosophy (https://plato.stanford.edu/).



Case 1:
Supporting small businesses driving climate actions across Canada

(1) The researchers made a virtuous decision to focus on and empower small businesses, who are often neglected actors in making the right choices towards transforming the economy. **(2)** With a sense of duty to highlight diverse motivations for climate actions, the project team agreed that selected stakeholders should represent different geographies, sectors, genders, and ethnicities. **(3)** To capture diverse motivations for small business-driven climate action, the project team and stakeholders worked to develop three agreeable narratives despite different positions and perspectives to inspire others and evaluate which narrative would create different amounts and types of attention and interest. **(4)** To enlarge the impact of the project through an online social network (www.pivot.org) to facilitate engagement across Canada and continue research in particular locations and networks to deepen co-production around small business-driven sustainability initiatives.

Case 2:
Coastal tourism adaptations to COVID-19 in Indonesia

(1) The decision to focus on COVID-19 impacts on tourism economies in Indonesia was motivated by the researcher's felt duty to shift focus to this issue due to prior research and close connections within the case study. This included maintaining and assisting long-standing prior collaborative partnerships locally. **(2)** With the goal to understand and maximize immediate impacts and adaptation, the project team prioritized speaking with key influential individuals who could provide the most insight in the least amount of time. Attention was later given to others, while also ensuring representation across different societal groups (business owners, local leaders, NGOs). **(3)** A consensus building synthesis was led by the researchers and agreed upon with the practice partners to approach the project and interpret findings from direct interviews and discussions with key informants. **(4)** Knowledge from the project was held by the project team to disseminate scientifically, and participating partners to use virtuously as needed in the weeks and months ahead for further adaptations.

Panel 1 This panel visualizes how the ethical basis of decisions across two projects are different both within and between the projects. Brief explanations for each decision are provided in the text below. Further details on each case study and project are supported by the following published literature: Case 1 (triangle) (Luederitz et al. 2023; Taimur et al. 2024) and Case 2 (circle) (Partelow et al. 2022). Importantly, our interpretations of the project decision points in both project examples represents the intentions of the researchers. The same actions could be taken with different intentions supported by different ethical values. We have used langauge to reflect the project intentions with the corresponding ethical theory

1. What to focus on

   Research teams incorporating transformative elements have a wide range of sustainability problems to choose from—exemplified in the Sustainable Development Goals or the planetary boundaries—and these problems manifest in different forms across cultures and geographies, and at different levels and scales (Moallemi et al. 2023; Pearsall et al. 2022). The focus of a project crystallizes a key part of the research goal. Developing a joint problem framing is considered by some the most relevant starting point for working towards shared goals (Lang et al. 2012). However, in co-production, the general problem that initiates the project is often decided and framed by the researchers at the very beginning – for example when securing funding or institutional research ethics approval – with other stakeholders agreeing on specific issues, goals and pathways later. But if the choice of the research focus is the responsibility of the researcher, what theories could inform such decisions considering factors such as disciplinary path dependency (Mahoney 2000; Partelow et al. 2020)? While often difficult to achieve, agreement can take different forms and may materialize differently in diverging contexts. Here, contractualism can offer insights as it centers around agreement, in contrast to, for example, abiding by or being guided by a natural or divine law. Contractualism (Box 4) suggests that justifiable positions need to be evaluated against the possible interests of others, where even if a participant is disadvantaged by the suggestion of another, the disadvantaged person can agree to accept this disadvantage because of the logical reasoning about how, for example, everyone else would benefit. Utilitarianism (Box 1) may also help address this challenge as it suggests no moral difference exists between different topics under equal net positive gains. Thus, it remains impartial to personal preferences or

circumstances in favor of optimizing for the utility of net social gain. At the same time, utilitarianism overlooks how the intention and motivation of researchers are unavoidably shaped by their positionality including values and social structure, among other factors such as research fields, mentors, advisors, media coverage or other factors.

2. Who to include

   Transformation-oriented research requires the involvement and engagement of diverse collaborators and stakeholders (Hölscher et al. 2018; Wittmayer et al. 2021). Identifying the members and peripheral participants is largely guided by the research focusas well as the normativity and researchers' intention to work with specific private, public or civil society actors. Researchers could decide to select stakeholders based on the net positive gain and utility they would bring to all who are affected within and beyond the project (i.e., utilitarianism (Box 1)). In contrast, deontological ethics could inform decisions when researchers are oriented by the moral imperative to reach a moral goal (e.g., social justice) and the inclusion of specific stakeholders necessary to reach this goal or to avoid harm to them (Box 2). Stakeholders have diverse and often uneven capacities and goals influencing how co-creation is realized (Breu and Hemingway 2005; Harrison 2011). Therefore, researchers may need to rely on their intuition and wisdom when approaching stakeholders for which virtue ethics (Box 3) can support decisions based on specific success criteria or schemes. Moreover, normativity of methods, timelines and working logics often complicate considerations of who to include. Since participants shape research projects substantially, and are focused recipients of potential benefits and harms, there are different co-production modes, methods and practices to be used from different ethical perspectives within transformative research.

3. How to co-create

   Different means exist for realizing transformation-oriented co-production research, including different modes, principles, methods and practices (Chambers et al. 2021; Miller and Wyborn 2020; Norström et al. 2020). Each approach implies certain assumptions and may impose specific engagement formats. Each mode or method is a learned skill, as is the ability to navigate setbacks, conflicts, failures, delays, re-starts, oversights, frustrations and other challenges. Practical wisdom can support researchers in navigating difficulties as it draws on the committed skill and will of individuals within a team to act appropriately under any given circumstances (i.e., virtue ethics (Box 3)). In contrast, deliberation among project partners to address challenges and justify means can be used in a way that considers the viewpoints and arguments of all involved according to a contractualist approach (Box 4). Leadership may play an important role, and decisions may be taken by project investigators and funders in alignment with their perceived duties to take certain actions and omit others (e.g., respect all people regardless of their gender) (Box 2) or to maximize benefit for everyone involved (Box 1). While such challenges are frequent, and may even be catalytic, they seem to be often omitted from research reports, which are the primary medium for describing how co-creation occurred to facilitate learning beyond individual projects. Perhaps, the reason lies in the desire of researchers to fit co-production approaches into existing norms of good scientific practice that favor systemized methods and processes in an effort to mainstream their adoption. However, acknowledging and reflecting on the role of ethical values in shaping research choices do not undermine co-production methods, but rather strengthen their transparency and integrity. This is because the way researchers react and manage each challenge carries consequences in the research ecosystem and in society. The ability to navigate ethical values can strengthen how issues of contestation and challenges are resolved and whether the research is ultimately successful in enabling transformations.

4. How to continue

   Co-production can lead to impacts beyond the formal time frame and initial scope. This is indeed the intention of many projects, yet how researchers navigate the decisions within the formal time frame and take long-term and non-anticipated impacts into account is challenging, as diverging ethical values may inform such decisions or change over time. For example, opportunities to create spin-offs from co-creation with the intention to amplify impact (Lam et al. 2020) through increasing overall gains (Box 1) may engender conflict, contradicting previous efforts to support the process through duty fulfillment (Box 2) or agreement (Box 4). Accordingly, new roles and responsibilities may emerge as projects are continued which carry ethical implications for everyone and particularly the researchers. Appropriately considering such implications and transparent communication of design and intention could support enduring commitment from stakeholders. Here, ethical considerations can provide insights into developing flourishing spaces in which purposeful and inclusive co-production can unfold.

Box 1 Utilitarianism

Utilitarianism is premised on four principles, with which the moral quality of actions can be judged. These are: (1) (only) consequences matter, (2) consequences have

to serve the good, (3) the good is something hedonistic and (4) the greatest happiness of the greatest number counts. Utilitarianism evolved from the writings of Jeremy Bentham and John Stuart Mill, followed by many others. If an action leads to net positive overall gains (e.g., well-being as a hedonistic principle), then it would be considered morally preferable. However, if high positive gains are made for some, but at the cost of smaller but more numerous losses for many more, it could be an overall net loss. Different strands of utilitarian thinking raise debates especially about which gains count and how to judge gains and losses, drawing the boundaries around direct and indirect consequences and defining who should be considered. A core debate is about impartiality, or the removal of personal bias of the agent, over who receives gains or losses and whether there is a moral dimension to this

Box 2 Deontological ethics

Deontological ethics is distinguished by its formality in adherence to the categorical imperative (Kant 1785) as a universalizing principle. An action is considered morally good if it is guided by a maxim (a general rule) that could be considered as universally applicable by everyone. An action would be considered morally good if the agent acts out of duty. This implies that alignment of an action with duty is more important than the outcome, because it is the right thing to do. Some choices would be morally forbidden irrespective of their consequences. The theory is most famously argued by Immanuel Kant. Deontological ethicists would argue that choices cannot be justified by their consequences, but rather by their conformity with moral duty. For example, always telling the truth, even if the consequences are negative.

Box 3 Virtue ethics

Virtue ethics focuses on the moral character and attitudes that guide actions and deliberation. An action is morally good if the person is guided by virtuous character traits and a mindset that takes into consideration all relevant circumstances of a situation, thus situational complexity. Perhaps first and most notably portrayed in Aristotle's Nicomachean ethics as well as in the noble eightfold path in Buddhism, virtue ethics is centered around building inclinations for acting out of virtues instead of adhering to given rules. Excellent character traits may be honesty, generosity or benevolence. Practical wisdom occupies a central role in virtue ethics, being viewed as one of the key capacities (in terms of virtuous skill and will) needed to practice excellent character traits in a given situation and recognize what makes them virtuous. Caniglia and colleagues (2023) demonstrated practical wisdom as it pertains to the virtues of will and skill in knowledge co-production to support developing the capacity of researchers navigating the normative complexities of transformative change.

Box 4 Contractualism

Contractualism revolves around the concept of agreement, which includes individuals either justifying their own interests to the group or foregoing their interests given the logical arguments of others in the group. Agreement (or universal non-rejection) is the legitimizing foundation for ethical rules within the relevant context as developed by Hobbes (as mutual self-interest) and more recently evolved by Scanlon. An action is morally wrong if it is unjustifiable to the interests of others. Contractualism is an impartial moral theory, which means that it implies that individuals can set aside personal bias in favor of taking decisions and actions based on more objective criteria. Individuals can acknowledge that they will suffer from the actions of others, but also agree that their suffering is reasonable because the alternative options make many others suffer more. An action must be justified so that all other impacted individuals can agree with it, or not, given their own positions and interests, and would be morally good if nobody can reasonably reject it, as implemented by Parfit (2011).

Next steps towards ethical plurality

We encourage sustainability and transformation scholars to strengthen their ethical awareness by engaging with different ethical concepts and moral principles as they guide and relate to context-specific actions. As demonstrated above, familiarity with different ethical theories can help foster constructive engagement with the implications, opportunities and consequences of decision-making in transformation-oriented research. The different theories portrayed in Boxes 1–4 are not intended to provide conclusive guidance, but provide introductions and simplify insight into their respective core claims, which are often contradicting and supported by diverse underlying assumptions, values, implications for action, as well as their consequences. The purpose of the arguments above is neither to provide extensive knowledge of each ethical theory nor to encourage a researcher or team to choose one to follow throughout a project. Instead, we call for building awareness for the ethical implications related to four decisions points in research and for engaging with a

wider variety of different ethical approaches. Importantly, we do not advocate forethical relativism, where any action can be assessed as morally good only related to a specific cultural or regional context, while at the same time rejecting universally valid ethical claims. We rather seek to shed light on the implications of different ethical positions, so that we can use them as tools to intelligently support and assess the development of co-production projects.

Building awareness of multiple ethical theories and concepts can allow project teams to more effectively embrace ethical plurality, enable reflexivity and foster mutual understanding when coming from different perspectives. Here, we suggest ethically inspired directions for future research and practice.

First, it is worth exploring and understanding in more depth how different ethical theories justify claims and add reflexive value to co-production projects. This has been done, for example, by Caniglia and colleagues (2023) with virtue ethics and practical wisdom.

Second, to advocate for this also requires acknowledging and bringing in a wider variety of ethical theories and practices from different world regions, Indigenous cultures (Latulippe and Klenk 2020) and philosophical traditions. This could include, to only mention a few, African Palaver Ethics, the Seven grandfather Teachings, Neo-Confucian Ethics or Feminist Ethics to widen engagement with different onto-epistemic practices. Reflecting on how each could enhance the toolkit for navigating co-production decisions would be an important step towards strengthening plural perspectives.

Third, while the notion of research ethics is dominated by ethics codes and committees at many universities, there is a need for co-production scholars to develop more comprehensive ethical approacher and concepts that are universally applicable, yet pluralistic is desirable. For example, is there a set of overarching principles, core topics or framework components that can guide the assessment of ethical decisions and values? Related efforts have been advanced, for example, by Parfit (2011), by interlinking the theories and concepts discussed here. Yet, we find this form of meta-ethics widely decoupled from transformation-oriented research which calls for a more value-laden and context-specific engagement with the presented theories. More broadly, there is a need to strive for common ground despite different ethical starting points.

Conclusions

Transformation-oriented research brings science and society together to co-produce action-oriented knowledge and create conditionsfor just and sustainable futures. These processes, explicitly or implicitly, reflect the ethical values of researchers when they take decisions throughout the co-production process. We argue that increasing ethical awareness can help researchers and project teams more effectively address the ethical complexities of their research and navigate decision points in a more transparent and critical manner. Increased awareness of different ethical theories offers a set of analytical tools to engage with ethical implications when raising important issues within projects such as ownership, responsibilities, consequences, duties, rights or challenges. The four decision points and the four ethical theories presented are only a starting point, used as an example to call for broader engagement with ethics and its role in knowledge co-production and transformation-oriented research.

Funding Open Access funding enabled and organized by Projekt DEAL.

Data availability No data is available or was used in this paper. Any secondary data is referenced directly in the text.

Declarations

Conflict of interest The authors declare no conflicts of interest.

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