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# The politics of co-production: participation, power, and transformation

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Literature on co-production is booming. Yet, most literature is aspirational and methodological in nature, focusing on why co-production is important for environmental governance and knowledge production and how it should be done, and does not address the question why these processes often fail to achieve stated objectives of empowerment and societal transformation. In this review, we address this gap by reviewing literature on the political and power dimensions of co-production. Our review shows how depoliticization dynamics in co-production reinforce rather than mitigate existing unequal power relations and how they prevent wider societal transformation from taking place. Drawing on literature about participation, deliberative governance, and democracy, the review concludes by emphasizing the importance of (re)politicizing co-production by allowing for pluralism and for the contestation of knowledge.

## Addresses

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## Introduction

In the last few decades, we have seen a participatory trend in environmental governance as well as in knowledge production [1–6], resulting in new relationships between governments, industries, civil society, and science [7–9]. Under a variety of concepts and labels including co-production, transdisciplinarity, science-policy interface, democratization of expertise, and knowledge brokering, numerous projects and interventions have been set up to facilitate participatory and collaborative processes that aim to integrate different ways of knowing and jointly develop knowledge that is actionable and that contributes to effective and legitimate solutions and the transformation of society [10].<sup>1</sup> In many cases however, these projects and interventions do not live up to their stated objectives [11,12]. We know from literature about participation that the outcomes of participatory interventions can even be paradoxical, reinforcing the problems that they intended to solve [4] but now sanctioned or legitimized by the participatory process; this is why participation has been referred to as tyrannical [13].

Despite this, much of the literature on co-production is aspirational — explaining the merits and importance of co-production — or methodological — providing guidelines for facilitation and communication to improve the execution of co-production projects. This literature presents best practices and lessons learnt, and offers checklists of factors and conditions for success [14–16]. While these checklists can be useful, the problem of this literature is that it does not offer a meaningful explanation of how and why these processes fail [17]. An important reason for this lack of understanding of failure is that the co-production literature has not paid sufficient attention to the role of power and politics in shaping processes and outcomes. This omission is surprising since literature on participatory and deliberative governance has historically addressed these two factors as crucial [13,18–20].

In this article, we discuss how literature<sup>2</sup> has addressed the political and power dimensions of co-production

<sup>1</sup> In this article we use the term co-production as a shorthand for participatory modes of knowledge production. We do not refer to the analytical concept of co-production as defined by Jasanoff (2004, *States of Knowledge*, Routledge), which suggests that “the ways in which we know and represent the world (both nature and society) are inseparable from the ways in which we chose to live in it”.

<sup>2</sup> In our discussion, we focused on studies of community-based and local processes and to lesser extent on those science driven initiatives which often use the label citizen science. We do feel however, that our findings are also relevant for that community of scholars and practitioners (also see Pettibone, L. et al. Transdisciplinary sustainability research and citizen science: Options for mutual learning. *GAIA* 27, 222–225 (2018).

(or not) and how these dimensions have affected the outcomes of co-production. By complementing this discussion with findings from participation, deliberative governance and democracy literature, we contribute to a better understanding of how and why co-production can fail and how this can be prevented.

### Unequal power relations

A key premise of co-production is that to address complex problems, scientific expertise alone is not sufficient and that the contribution of stakeholders' knowledge is vital to create knowledge that is not only of scientific high quality but also socially robust [21–24]. Underpinning these efforts is an ethic of mutuality, reciprocity, and equality between scientific and other experts, including practitioners, as well as citizens and civil society groups. Yet, this equality among participants is not self-evident. Literature on participation has demonstrated that elite actors, for example from government, large NGOs, or scientists, have more time and resources available, often initiate these processes, define the scope for participation, have more knowledge and skills, and are, for all these reasons that resonate with social-cultural biases, better able to articulate a contribution that is considered relevant and important [4,21,25]. Consequently, elite actors are able to shape these processes to serve their interests [26,27]. In a co-production context, these power inequalities are further compounded by the strong authority that is attributed to scientific expertise vis-a-vis other knowledge systems [28,29].

These uneven power relations are often present from the start; for example when individual citizens or representatives from community organizations or non-profits are invited to participate into processes of which the scope for participation and the problem framing of a project have already been defined by a narrower set of elite actors [30]. This is further exacerbated by the fact that these elite actors are often paid to participate as part of their professional roles, while the other participants are expected to volunteer their time [31]. Groups who already have established relationships across science, policy and community actors are also more often invited to participate than unorganized citizens or less well-known groups [31].

These inequalities become even more pronounced when co-production involves collaboration between Western and Global South stake-holders and knowledge-holders. This inherent Western bias has been problematized. Specifically, North-South politics, the ongoing challenges of colonialism, the contexts characterized by conflict, and communities that are not able to self-organize nor given support by local decision-makers, make the current guiding logics and principles of co-production problematic [32–35]. Notions of trust, willingness to collaborate, momentum, and symmetrical power relations cannot be taken for granted and failing to recognize this could have

detrimental consequences [36]. For example, a study of land reform processes in Ghana found that co-production became a conduit for private wealth accumulation within the broader context of weak institutional capacities and poor governance [37]. In such a context, those with power and resources were able to take advantage of the co-production process and undermine the efforts to promote more equitable governance [37].

These biases towards elite actors are worrying because they result in these processes reproducing or even exacerbating existing inequalities. And this also affects the quality, usefulness, and legitimacy of their outcomes because they are less likely to result in solutions that resonate with and are usable for non-elite groups [35,38–40].

### Depoliticization

Depoliticization is a key factor in the reproduction (and justification) of the unequal power relations discussed in the previous section. What we have seen in co-production, and in participatory processes more generally, is that they are often dominated by a particular depoliticized discourse that uses rational and scientific arguments to evoke universalized ideas of what is 'the best' solution. This discourse ignores political differences between participants, including positions, interests and beliefs, and pressurizes non-elite participants to stay within this scientifically sanctioned rationality. For example: they are expected to act in accordance with pre-set ideas of what it means to be reasonable; to allow their knowledge to be integrated into science-based frameworks; to compromise to enable the resolution of conflict in all its forms; or to subscribe to a consensus view [41–45].

These problems have been well documented in literature that focusses on the politics and democratic quality of participatory processes, and these scholars argue that there are no simple solutions [4,13]. For these reasons, it is surprising to see that many co-production studies are silent on this issue. A typical example of this is a coastal research project on social and ecological changes associated with development of liquid natural gas (LNG) extraction in Australia [46]. By ignoring the economic and political power of the LNG industry, authors neglect an important possible explanation of failure to change the situation [46]. If addressed at all, much of the co-production literature offers recommendations to ensure good processes, for example about importance of trust and open communication [47,48], which fail to address power and politics of these complex issues, including a neglect of how the results will feed into formal politicized decision-making structures. Other literature emphasizes the importance of making the 'right' connections between researchers, decision-makers and representatives of stakeholder groups, to ensure inclusivity and representativeness, and the need to develop a vocabulary and skills for bridging diverse boundaries [49–53]. This focus on

new connections, language and skills often does not reflect on the socio-cultural biases in the co-production process, and the potential harm (for example the loss of particular political interests, norms and values in the co-production process) that can result from attempts to realise these values and conditions. Without this critical reflection, these proposals are at best incomplete and at worst harmful.

As we have shown so far, by failing to address the political and power dimensions of co-production, these processes in practice end up reinforcing and strengthening traditional modes of knowledge production and dissemination, in which scientists are cast as holders of knowledge and other stakeholders as holders of values or perspectives to be corrected by science, as receivers of scientific expertise, and as cocreators of solutions [5,9,54,55].

### Empowerment

Some studies do recognize the importance of managing power dynamics within co-production processes. They mostly call for practical measures, such as more attention to sources of funding, project motivation, and loci of power [56] and they warn that co-production may empower some actors over others and encourage awareness of this [11,21,29,32,57]. Other authors allude to the fact that decision-makers involved in co-production will be subject to political and social pressures [58] and suggest that it is important to create ‘horizontal’ rather than ‘hierarchical’ relationships between actors [59,60]. Part of the co-production literature takes this a step further and considers the empowerment of marginal actors as a fundamental goal of such projects [61] and argues that co-production requires deepening engagement with inequality and exclusion as well as a direct confrontation with current power asymmetries [62]. This explicit focus on empowerment and the politics therein tend to be less present within studies of co-production that are driven by a rationale that sees co-production as a means through which scientific knowledge is mobilised to ‘solve’ scientific problems. These studies in particular risk failing to address the key issue of representation; who participates and what values, perspectives and interests do these participants represent, and deliberation; how can all voices be voiced and included in a legitimate way.

Addressing the power dimensions of participatory processes is a long-standing concern in scholarship on deliberative governance and democracy. This literature emphasizes the importance of making power explicit and of reflecting on the, often implicit, assumptions and expectations held by participations about each other’s roles and responsibilities [63]. In this perspective, power is unavoidable and should be discussed openly. The central idea is to shift the debate from one shaped by ‘power-over’ — where some participants are dominated or manipulated by others — to ‘power-with’ — where all

stakeholders are empowered to generate something new and connect with something larger than themselves [19,64]. This will inevitably entail a degree of disempowerment of science and other elites, as has been advocated in calls for humility on the part of science [65–67]. Cases of co-production describe how the ability of elites to step back was central to allowing the renegotiation of roles and responsibilities of participants and the redefinition of the objectives and priorities of the project to reflect those of the community and empower traditional marginalized voices within decision-making [30,68,69].

In this view, conflicts are unavoidable and it is paramount to resist their premature closure. Drawing on agonistic democratic theory [70,71] amongst others, literature has critiqued the imperatives of integration and consensus as guiding logics of co-production and has highlighted the creative and productive potential importance of contestation, pluralism, informed dissent, and difference [38,40,41,43,72–78,67]. One study details an example of co-producing knowledge full of conflict, tensions and risks in an informal settlement in South Africa, which bore local fruit and had positive spill over governance effects without beginning by crafting a shared vision of the future [35]. Similarly, the Loweswater Care project was able to create equal relationships between different forms of scientific and local knowledge and develop and test management interventions to address local pollution by encouraging the mutual criticism and contestation of all knowledge claims [79,80].

### Societal transformation

There is the expectation that co-production results in actionable knowledge that can catalyse broader societal transformation of governance and knowledge production processes [3,17,81]. The question is if this expectation is being met. The bulk of the literature does not address change outside the boundaries of the specific co-production projects or processes which are often inherently small scale and inclusive of a limited number of individuals [31,59,82–84]. Some articles do point to the wider impact of learning taking place within co-production processes but do not discuss this in depth [85]. Hence, this project focus has limitations [12]. We have found cases where attempts to innovate science-policy relations towards co-production were thwarted because the existing political context favoured a traditional role of science [86,87]. To prevent this, co-production processes can be organized as part of a broader political agenda [88]. One example discusses how technical water committees in the city of Caracas were able to empower poor citizens because they were seen to be part of a broader political project to change power relations between the state and the citizen and to promote a new form of citizenship [89].

This issue of the limited scope of co-production processes, and of the articles documenting these

processes, is symptomatic of a wider trend to organize governance, societal change, and transformation processes in projects (or niche innovations) [90] which are required to demonstrate their effectiveness [91]. Projects have clear advantages because they are bounded and have clearly defined goals which allow for such evaluation of effectiveness to take place. The small scale of projects also has the advantage that they can be seen as testing-grounds to try out new ideas [92]. However, the flipside of this is also immediately clear: the interests and actors outside project boundaries are not addressed and there are no mechanisms in place to contribute to their transformation [12,93]. Thus, by not engaging with, nor challenging the power structures inherent to the wider context, the organization of co-production in the form of projects can be seen as another form of depoliticization.

This poses a dilemma for the practice of co-production: the disconnect between co-production projects and outside actors and interests is both a strength and a weakness. When pitfalls related to depoliticization and empowerment can be avoided, there are clear benefits to co-production projects. They are manageable to organize and to get funded, and they can provide contained spaces for experimentation in which it is safe to fail. In difficult, or even hostile, political contexts, this can also be the best available option to catalyse societal transformation [35]. At the same time this containment also prevents societal transformation because actors and interests outside project boundaries are not included or transformed [12,92].

## Conclusion

In this literature review, we have shown that co-production processes can end up reproducing, rather than mitigating, existing unequal power relations and that they often do not contribute to societal transformation. At the basis of these failures lies a strong tendency to depoliticize co-production. We have discussed three ways in which this depoliticization can be recognized. First, many co-production projects are led by a rationale of science-driven impacts and do not challenge existing hierarchies between scientific and other knowledge holders, which then means that they themselves serve to reinforce existing structures of power that privilege scientific knowledge over other ways of knowing. Second, depoliticization can be recognized in the tendency of co-production projects to strive for consensus and for solutions that are considered rational according to elite perspectives, but which may cover up fundamental differences among participants in terms of stakes, power, access to resources, vulnerability, and risk. Third, it occurs when co-production stays confined to project boundaries without engaging the wider political context in which these projects are embedded. While this orientation of co-production to the processes within projects has clear benefits, it also prevents co-production from contributing to societal transformation, or even hinders this transformation by replicating existing power differences. We see the same

depoliticization tendencies in research on participation and knowledge production and use [94], and while strategies to address within-project power dynamics are clearly valuable, if they are put forward in isolation of those that challenge existing societal structures, we fear their impacts will be limited.

Recognizing the politics of co-production both in practices and in research will require a rethinking and a repoliticization of these processes that goes beyond simplistic checklists of do's and don'ts. We suggest that it is important to understand co-production as both a knowledge-making and a political practice which is inevitably imbued with unequal power relations that need to be acknowledged but cannot be managed away. Instead, it will be vital to allow for pluralism, create scope to highlight differences and, enable the contestation of interests, views, and knowledge claims. In addition, we need to better understand the mechanisms that do accomplish successful empowerment in co-production projects in isolated projects and the ways that those mechanisms can be connected to, or embedded within, broader processes of societal transformations. We recognize that such a (re)politicization of co-production can be risky and it may not result in actionable knowledge in a depoliticized or instrumental sense, but nevertheless argue that it is essential for co-production to realize its transformative potential.

## Conflict of interest

Hereby I declare that the authors have no conflict of interest.

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