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Who Judges What Knowledge is Sound and on What Basis?: A Power-Sensitive Approach to Judgemental Rationality in Transformation Research

by

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Abstract

With social, ecological, and political crises aggravating globally, transformative knowledge promoting systemic alternatives is more urgent than ever. Judgemental rationality, as one of three key pillars of critical realism, has the potential to question dominant epistemes and strengthen transformative knowledge. At the same time, it is susceptible to reproducing epistemic injustice. In this working paper, we explore three challenges – a philosophical, a practical, and a political one – that complicate the exercise of judgemental rationality and hinder the production of transformative knowledge. In drawing upon the examples of teaching pluralist economics, reasoning about plausible futures in scenario-building, and researching the global politics of post-growth, we show how these challenges are often reproduced in transformation research. We can face these challenges, among other, by adopting a power-sensitive approach to judgemental rationality, reflecting our positionality, embracing omissive critique, and counter-acting the practical challenges in neoliberal academia by fostering a solidarity-based academic culture.

Keywords: critical realism, judgemental rationality, transformation research, epistemic (in)justice, feminist standpoint theory, degrowth.

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Introduction

In a world of multiple crises, ranging from climate change and biodiversity loss to increasing inequality, an erosion of democratic institutions, and intensifying geopolitical tensions, humanity is in urgent need of analyses that help to make sense of the drivers and that offer potential solutions to these developments. Despite frequent calls for 'transformation' in both science and politics, hegemonic worldviews, the epistemes that sustain them, and the policy responses they generate remain largely intact, ensuring that policy responses to multiple crises largely amount to more of the same. Technological fixes, economic incentives, green growth, and austerity measures have been the dominant responses in the social-ecological crisis complex in the last decades (Bärnthaler et al. 2024; Stoddard et al. 2021). Growth alternatives, rather than alternatives to growth, are emphasised while heterodox worldviews such as eco-feminist, post- and degrowth, or indigenous epistemes remain widely marginalised. More recently, a global authoritarian backlash aggravates this marginalisation (and partly: criminalisation) while opening space for an anti-science rhetoric that rejects climate policy altogether (Brown 2019; Patterson 2023).

Critical realism (CR) is committed to 'explanatory theory and emancipatory practice' (Bhaskar 2016:101). This means that social science should strive for the identification and overcoming of false beliefs, such as the ones outlined above, and their generative causes. This requires the ability to rationally distinguish between true and false beliefs, different conceptions of the world, and competing theories and explanations. In other words: researchers must judge rationally – or engage in 'judgemental rationality' (JR) (Bhaskar 2016: 95). JR is one of the three key pillars in CR (together with ontological realism and epistemological relativism, as explained in section 2), yet '[c]ritical realists acknowledge that the concept of judgemental rationality is under-developed and how to judge between different, better, worse and competing accounts of reality is fraught with complexities including the central problem of evaluative criteria' (Quraishi et al. 2022: 26; see also Bhaskar 2007, Isaksen 2016; 2022). Recently, theoretical discussion of JR advanced with the special issue 'Judgemental Rationality' edited by Robert Isaksen and published in the *Journal of Critical Realism* (JCR, Vol. 23, Issue 5).

While we deem JR an important tool for questioning dominant epistemes and for generating and strengthening transformative scientific knowledge, its exercise is also confronted with challenges that make it liable to the reproduction rather than the transformation of dominant knowledge (Peter 2003; Dengler 2022). By transformative scientific knowledge, we mean '[t]he facts, concepts, paradigms, themes, and explanations

that challenge mainstream academic knowledge and expand and substantially revise established canons, paradigms, theories, explanations, and research methods' (Banks 1993: 7; see also Urmetzer et al. 2020). This knowledge provides a more accurate understanding of the world and is therefore a prerequisite for emancipatory transformative practice in the sense of an explanatory critique.

This paper contributes to recent discussions on JR and argues that its application (especially in the social sciences) is insufficiently attuned to power relations. Bhaskar (2016: 55) distinguishes 'two frequently confused senses of power: power in the sense of transformative capacity, which [he calls] *power$_1$*, from power in the sense of domination or oppression, *power$_2$*'. We explore the role of power asymmetries – in the sense of *power$_2$* – in the production of scientific knowledge and ask: *What complicates the exercise of judgemental rationality and hinders the production of transformative scientific knowledge?* While we acknowledge that there is always a gap between 'a judgement and the prescribed action' (Bhaskar 1987: 186; cf. also Armstrong 2024), we assume that explanatory critique and the production of transformative scientific knowledge are necessary (albeit not sufficient) prerequisites for transformative action.[1]

The aim of this discussion paper is twofold: On the one hand, we contribute to CR discussions by discussing that and how power$_2$ relations complicate JR and show that a power-sensitive account of JR is needed to counter what we term the philosophical, practical, and political challenges of CR (section 2). On the other hand, our aim is to draw the attention of social-ecological transformation researchers to the importance and challenges of exercising JR. Using three examples from research and teaching, we will demonstrate how power asymmetries constrain the production of transformative scientific knowledge, and how a power-sensitive approach to JR can counteract these tendencies (section 3). We conclude our analysis with a call for continuous reflexivity regarding the conditions of and power$_2$ relations inherent in knowledge production, which makes the question 'Who judges what knowledge is sound and on what basis?' an indispensable component of a power-sensitive approach to judgemental rationality in transformation research.

[1] This does not mean that we underestimate power$_2$ relations outside academic knowledge production and their significant contribution to the ignorance and marginalization of scientific transformative knowledge in broader politics.

Critical Realism and the Challenges for Judgemental Rationality

Critical realism (CR) is a philosophy of science that moves beyond the paths of positivism and constructivism.[2] CR proposes the compatibility of three key pillars, namely ontological realism, epistemological relativism, and judgemental rationality (Archer et al. 1998, xi). Ontological realism assumes a reality that predates our knowledge of it and that exists whether we come to 'know' it or not. Epistemological relativism refers to the idea that our knowledge about reality is mediated by certain cultural and historical perceptions and positionalities. For example, our positionality as two female postdoctoral researchers from the Global North, who specialise in political science and economics, are only temporarily employed, and do not identify with the mainstream of our disciplines shapes that and how we write this working paper, what problems we do (or do not) see, and what examples we bring to the table. While the situatedness of our knowledge does not keep us from bringing topics we deem relevant (e.g. the postcolonial critique of judgemental rationality) to the table, it is important to acknowledge that privilege (e.g. we are white, able-bodied, and have a friendly and supportive team environment) is a great blinder and might lead to omissions we are not aware of. In line with this, CR holds that knowledge is not value-neutral, but depends on the researcher's own position in the system of knowledge production, is theory-dependent (however not theory-determined), and always fallible (Danermark et al. 2002). This reflexivity differs greatly from a mainstream empiricist, positivist approach. In striving for generalisation, value neutrality, and objectivity, positivist research hides its normative assumptions, the situatedness of researchers, and power asymmetries in knowledge production. In contrast, CR postulates epistemological relativism in line with feminist philosophy of science, postcolonial perspectives, and – more generally – research that acknowledges that '[s]tarting places matter" (Power 2004, 4).

The third key pillar of CR, judgemental rationality (JR), pertains to the claim that while all knowledge is fallible, not all knowledge is equally fallible and rational judgements about the superiority of a theory can be made. JR has arguably long been the most neglected of the key pillars and '[c]ritical realists acknowledge that the concept of judgemental rationality is under-developed and how to judge between different, better, worse and competing accounts of reality is fraught with complexities including the central problem of evaluative criteria' (Quraishi et al. 2022, 26; see also Bhaskar 2007, Isaksen 2016; 2022). Recently, theoretical discussion of JR advanced with the special issue 'Judgemental Rationality' edited by Robert

[2] For a comprehensive introduction to CR, see Sayer (1992), Danermark and colleagues (2002), or Buch-Hansen and Nielsen (2020).

Isaksen and published in the *Journal of Critical Realism* (JCR, Vol. 23, Issue 5). In principle, JR is an important stepping stone for the creation of transformative knowledge, as being challenged to question and justify one's own theoretical choices and methodologies prevents an automatism of reproducing dominant epistemes and encourages the engagement with alternative bodies of knowledge. However, we identify three challenges that complicate the exercise of JR, which make it liable to reproduce power$_2$ asymmetries. While the philosophical challenge gets increasingly addressed in critical realist debates, two resulting practical and political challenges are so far less visible.

Philosophical Challenge: Exercising JR in light of Epistemological Relativism

From a philosophical point of view, there seems to be a contradiction between the three key pillars of CR. While the need for JR to choose between competing theories is intelligible, even necessary, with regard to ontological realism, it is questionable in the light of epistemological relativism. How can we judge which theory, analysis, or proposition is 'more true' if our criteria for judging are necessarily epistemologically relative (Isaksen 2024)? Those questions have been fundamental for discussions between CR and feminist philosophy of science (e.g. the Lawson-Harding debate in the late 1990s/early 2000s, for an overview see Dengler 2022) as well as CR and postcolonialism (e.g. the 2010 JCR special issue 'Postcolonialism, Realism, and Critical Realism' edited by Radha D'Souza, Vol. 9, Issue 3). In these debates, CR has been accused of neglecting global power structures (Barker 2003), not putting enough emphasis on deciding which arguments are considered sound (Peter 2003), and excluding non-hegemonic knowledge from 'the centre-stage of epistemology' (D'Souza 2010, 373).

For solving the tension between epistemological relativism and JR, the critical realist debate has mainly revolved around two aspects: an affirmation of the ability to judge rationally and a rejection of infallibility. Critical realists share a commitment 'to judge rationally between different conceptual theories, phenomenal claims and causal explanations' (Spash 2024, 85). This means that a researcher's cultural and socio-historic epistemological situatedness does not prevent them from adjudicating 'among rival reality constructions' (Porpora 2015, 73). At the same time, critical realists also fully acknowledge the fallibility of their judgements (e.g. Groff 2000; Porpora 2015; Sayer 1992). For example, Ruth Groff (2000, 429) emphasises that:

> "[...] justification ought to be seen as a process that is necessarily indeterminate. We may identify criteria that we take to be good indicators of a theory's being true, but meeting such criteria neither establishes

> that a theory is true, if it is, nor constitutes a definition of truth. Strictly speaking, we simply cannot know with certainty if a theory is or is not true."

A correspondence theory of truth assumes that a statement is true if what it states is the case (ibid., 427), however, to facilitate judging if something is the case, an evaluative criterion is needed. Roy Bhaskar (2009, 49–54), the founding father of critical realism, himself proposed the criterion of greater explanatory power for choosing between theories, stating that:

> "[a] theory T_c is preferable to a theory T_d […] provided that T_c can explain under its descriptions, almost all the phenomena that T_d can explain under its descriptions, plus some significant phenomena that T_d cannot explain. […] What makes one theory qualitatively better than another is its capacity to identify, describe and (ideally) successfully explain a deeper level of reality and/or to conceptually and explanatorily unify formerly disparate sectors or fragments of our knowledge of the world."

In a recent article, Isaksen (2024, 3) takes up Bhaskar's considerations but rightly problematises the notion of 'significance' which only shifts the problem of judging to another level:

> "Because significance is decided by someone, we can ask […] 'significant to whom?' This question is important because if competing theories have competing views on what is most significant it is difficult to see how this criterion for theory choice can be useful to adjudicate between competing positions."

As a solution to the problem, he suggests supplementing the criterion of greater explanatory power with the CR concept of immanent critique (and, though not discussed in our working paper, with what he calls 'fractal coherence'[3]). He argues that an exercise in immanent critique, i.e. criticising a theory from within its own premises, answers the question of significance with the dictum of 'significant to the other' (ibid., 12). This means that one theory can be rationally chosen over another if the former can identify, explain, and resolve inconsistencies within the latter. While we acknowledge the importance of immanent critique and greater explanatory power for JR, we will confront the philosophical 'solution' with a practical and a political challenge and argue that it must be supplemented with both a critical reflection of the conditions of knowledge production and a focus on the aspects that are omitted by a particular theoretical perspective, i.e. with omissive critique.[4]

[3] Fractal coherence is understood as a form of meta-coherence between a philosophy of science and its meta-philosophy. Accordingly, a criterion for theory choice 'can be supported by its fractal form' (Isaksen 2024, 13). Since we see the danger of reproducing misconceptions of the philosophy of science level at the level of meta-philosophy, we are not fully convinced by this argument. This is why, in this working paper, we mainly discuss Isaksen's account of immanent critique in relation to JR.

[4] We thank Hans Pühretmayer, who drew our attention to the concept of 'omissive critique'.

Practical Challenge: Practicing JR in Neoliberal Academia

The formal criterion of greater explanatory power is highly demanding and abstracted from the question of how knowledge is produced. Knowledge production is, like any other production process (Althusser 2017), embedded in structures that are pregiven and relatively enduring (though CR stresses that actors can also transform these structures). While structures pre-date human agency, they are also what Ngai-Ling Sum and Bob Jessop (2013) call strategically selective, as they 'favour certain interests, identities, agents, spatio-temporal horizons, strategies and tactics over others' (ibid., 248).

In neoliberal academia, knowledge production is characterised by specialisation, competition, and an accompanying publication pressure (Buch-Hansen, Nesterova, and Nielsen 2025). These structural properties encourage and reward short production times ('How many papers per year?') and – to a certain degree – non-altruistic lone wolf behaviour among researchers. The frequent recourse to journal rankings in disciplines like economics has a strong tendency to reproduce dominant epistemes and marginalise more heterodox approaches, which can hardly be published in A+ journals. Citation analysis confirms a tendency of heterodox approaches to grapple with (and cite) mainstream approaches instead of engaging with each other, which again reproduces hegemonic rather than transformative knowledge (Dobusch and Kapeller 2012). Moreover, which knowledge is (or is not) picked up upon is often linked to questions of easy access (e.g. digitally, in English language, open access). It comes to no surprise that some discourses are structurally disadvantaged (e.g. much of Latin American research is published in Spanish) and therefore often excluded from academic debates, while others are promoted (e.g. by universities almost exclusively in the Global North covering open access fees) and/or universalised (e.g. research from the US in economics and international political economy). For the field of economics, Ernest Aigner, Jacob Greenspon, and Dani Rodrik (2025) analyse more than 450.000 articles published between 1980 and 2021 and find that authors from the Global South are structurally disadvantaged regarding general representation, publications in top-journals, and citations. Such tendencies towards the routinised reproduction of hegemonic knowledge stand in the way of JR, if it is to be exercised by using the criterion of greater explanatory power.

On an individual level, judging greater explanatory power requires, first and foremost, time to engage with as many different theories as possible – Julia Molinari (2024) refers to Bhaskar's concept of 'bi(or multi) theoretic-linguality', Simeon Newman (2024) to the need for 'encyclopedic theoretical familiarity'. While time is generally short in the academic field (Berg and Seeber 2016), it is furthermore unequally distributed, for example with regard to

gender. Up until today, women face more precarious working conditions in academia (Zheng 2018). For example, they hold significantly fewer permanent positions (e.g. 26.2% of full professorships in the EU)[5] and are faced with a motherhood penalty (Lutter and Schröder 2020), where the unequal distribution of unpaid care work[6] leads to a 'significant decline in the number of publications by women on average, while not affecting the number of publications by men' (ibid., 442). Time injustice in academia is, however, not only gendered. It also disproportionately affects Black and Indigenous, queer, and working class faculty – and especially those at the intersection of these axes of discrimination (Social Sciences Feminist Network Research Interest Group 2017). While finding the time to engage with as many theories as possible is challenging for everybody, it is yet harder for those who do most of the invisible work in and beyond academia and whose perspectives therefore tend to be sidelined.

Apart from time, exercising JR presupposes an epistemological flexibility to immerse oneself in various bodies of thought (ranging from the scholarly canon to heterodox perspectives, to multiple indigenous bodies of knowledge) that the majority of researchers do not have (e.g. because of long-cultivated ontological assumptions). Making an abstract and universal judgement between competing theories would almost require to de-historize and de-position oneself from one's own epistemological situatedness and prior knowledge. Feminist philosophy of science has long criticised the ideal of a dis-embedded and dis-embodied researcher as an androcentric 'god trick of seeing everything from nowhere' (Haraway 1988: 581). Feminist standpoint theorist Sandra Harding (1986) has brought forward the notion of 'strong objectivity' to suggest that an objective choice between theories must be a collective endeavour, where own omissions that arise from situated knowledge are counteracted by involving as many perspectives as possible. While there is a basic compatibility between CR and feminist standpoint theory regarding ontological realism and epistemological relativism (e.g. Dengler 2022; Mussel 2018), the role of (and power asymmetries in) judgemental rationality are key for a feminist approach to critical realism.

In summary, a deeper reflection on the conditions under which knowledge is produced reveals what we have called the practical challenge of exercising JR by applying the criterion of greater explanatory power in neoliberal academia. We argue that the process of knowledge production in this context is structured in such a way as to prevent the theoretically necessary

[5] https://projects.research-and-innovation.ec.europa.eu/en/knowledge-publications-tools-and-data/interactive-reports/she-figures-2021

[6] The International Labour Organisation (ILO) finds that women perform ¾ of the unpaid care work globally (ILO 2018, 53f.)

preconditions for exercising JR in the sense of the proposed philosophical ‘solution’. The practical challenge disproportionately favours research (and researchers) that fits well within a given system, thereby promoting a tendency to the status quo rather than the production of transformative knowledge. We agree with Hubert Buch-Hansen, Iana Nesterova, and Peter Nielsen (2025, 2), who find that what we have termed the practical challenge leads to the fact that

> “[...] instead of being the vehicles for positive transformations that many academics would like academia to be, and that universities often present themselves as, [neoliberal] academia is pervaded by hierarchies and logics that overall prevent it from playing such a role.”

To counter this tendency, we need to be aware of these power$_2$ relations and pursue a solidarity-based academic culture that fosters cooperation, multiperspectivity, care-full teamwork, and collective action.

Political Challenge: Exerting JR in Politicised Contexts

There is a third challenge that particularly refers to Isaksen’s proposition to supplement the criterion of greater explanatory power with an exercise of immanent critique. Judging a theory on its own terms evades the problem of significance. Rather than making judgements about which phenomena or explanations are more significant, the aim is to examine a theory for its own contradictions and thus to show that it cannot consistently explain the phenomena that are considered relevant from its own perspective. Taken to its logical conclusion, such an approach suggests that the subjective core of ‘significance’ can be muted and rendered irrelevant to JR if coherence takes centre stage. From this follows an abstraction from the political goals for which knowledge is being produced, i.e. from what Ryan Armstrong (2024) calls the ‘prescriptive power’ of theories. This is particularly problematic when it comes to transformation research which is inherently political (Bärnthaler et al. 2025). We argue that not only research *for* transformation, but also research *on* transformation is guided by normative assumptions. Research questions in transformation research usually revolve around what makes transformation possible or prevents it, thereby presupposing at least an implicit idea of what counts as transformative and what does not.

The recourse to coherence does not allow the transformation horizon itself to be criticised. If the political goal is solely a reduction of CO_2 emissions in order to tackle climate change, research on the development, introduction, and promotion of e-mobility is an inherently coherent undertaking. Contradictions only emerge when the perspective is widened

to take more critical debates, for example on 'greening extractivism' (Voskoboynik and Andreucci 2022), 'lithium sacrifice zones' (Saleth and Varov 2023), and the 'geopolitics of green colonialism' (Lang, Manahan, and Bringel 2024) into account. These put an emphasis, for example, on the loss of biodiversity (as part of planetary boundaries) and questions of land rights and social justice (as part of a good life for all). From this perspective, the promotion of e-mobility as a form of private mobility contributes to a shift in the dimension of the crisis. However, this only becomes visible when the climate crisis is put into the context of the wider poly-crisis and the global political economy of nature. The example shows that immanent critique must be supplemented by another form of critique that Bhaskar called 'omissive critique':

> "The second major form or level of critique is that of omissive critique or metacritique. This involves the elucidation of the generative absences at work in the system of thought […]. This level of critique depends of course on the rectification of the identified absences in a more comprehensive and coherent account. (Bhaskar 2010b, 21)"

Omissive critique opens the possibility of contextualising and thus of pointing to the omissions of an in itself coherent theoretical approach. Doing so, it also reveals the political beliefs behind a specific research agenda.[7] This brings us back to where we started: Who gets to decide which omissions are significant, or in other words, which are the important research questions to be considered and answered?

We argue that the introduction of omissive critique can help to make the hidden power relations in knowledge production visible by exposing who or what is not being listened to. Omissive critique lends itself to organising the research process as a collective undertaking that – in line with strong objectivity – benefits from rather than is hindered by different standpoints. For exercising JR, this means that researchers must be aware of their situatedness, reflect on the consequences of the ensuing positionality, and try to point out and justify rather than conceal normative assumptions of and power relations in judgements about the soundness of different types of knowledge (Stigendal and Novy 2018). Such an approach involves a conscious engagement with competing theories, an immanent critique of them where possible, and an omissive critique of both one's own and competing theories. This highlights the need for multiperspectivity, which is not the same as relativism or an anything-goes pluralism (Novy et al. 2023: 78) but means broadening the basis on which the explanatory power of a theory can be judged. While this is not a direct route to the truth, it

[7] Bhaskar (2010b, 21f.) distinguishes a third form of critique, i.e. explanatory critique, which is aimed at explaining the causes for the identified omissions.

does provide a reasonable foundation for a rational judgement that confronts at least some of the hidden $power_2$ relations that tend to reproduce rather than transform dominant epistemes.

JR and Recent Tendencies in Transformation Research

After having introduced the concept of judgemental rationality and confronted it with a philosophical, a practical, and a political challenge, the interim conclusion of section 2 is that JR needs to carefully consider $power_2$ relations. Implementing a power-sensitive approach to JR requires critical realists to engage with greater explanatory power and immanent critique to confront the philosophical challenge, an awareness and self-reflexivity for the practical challenge, and omissive critique for the political challenge. In order to make this argument less abstract, we now illustrate how $power_2$ relations in knowledge production constrain transformative scientific knowledge and how exercising JR in a power-sensitive manner can counteract these tendencies in transformation research. Drawing on our own positionality and experiences in teaching, researching, and acquiring third-party funding on different strands of transformation research, we reflect how a CR-informed approach can address challenges like andro- and Eurocentrism in teaching economics, path dependencies in future studies and scenario building, and challenges for degrowth and post-growth scholarship to produce truly transformative knowledge.

Andro- and Eurocentrism in Teaching Pluralist Economics

Processes of knowledge production in positivist research and teaching often fall prey to androcentrism (Gilman 1971 [1911]) and Eurocentrism (Amin 1989). Eurocentrism refers to the fact that hegemonic European (or, more generally: Global North) perspectives, standards, and values are seen as the norm, whereas androcentrism sets a specific concept of ‘the man’ as the norm and women as well as trans and non-binary people as the other. However, these epistemic injustices in knowledge production are not limited to positivist research and, as Isaksen (2024) notes, Bhaskar himself (2010a, 160f) reflects on the role of Eurocentrism in critical realist (and aspirationally transformative) knowledge production, when he writes:

> “My story is obviously only a story of western philosophy, so we have to ask to what extent the history of philosophy, indeed philosophy itself, is Eurocentric. [...] What of African philosophy? Or Confucianism? Lurking around here are questions of criteria of rationality. It seems we only take ‘western’ criteria of rationality for granted because global geo-history has turned up with certain cultural milieux causally related to dominant power relations. [...] What has been marginalized, subordinated, fragmented, omitted or occluded in a philosophical account? ”

This poses a great challenge for the production of transformative knowledge, as will be illustrated for the example of teaching pluralist economics. Economics is a social science discipline with a very pronounced mainstream, consisting of neoclassical economics (NE) and schools that deviate from some of NE's rigid assumptions but still share a common pre-analytic vision[8] and outlook (e.g. behavioural economics). In the aftermath of the 2008/09 financial crisis, economics students around the world started calling for more pluralism in economics education (Thornton 2016; Decker, Elsner, and Flechtner 2021), claiming that the way economics is being taught reproduces dominant worldviews and a tendency to the status quo, while inhibiting outside-the-box thinking and transformative knowledge. For example, the *International Student Initiative for Pluralism in Economics* (ISIPE) was founded on 5 May 2014 and its open letter with the plea for theoretical pluralism, methodological pluralism, and interdisciplinarity in economic teaching was signed by 82 student groups from 30 countries. One of the demands of students calling for pluralism in economics was to learn about the history of economic thought, as economics textbooks often present neoclassical micro- and macroeconomics as the truth rather than as a specific theory. Knowledge about the history of economic thought puts economics in a socio-historical context, discusses continuities, ruptures, and major shifts in reasoning about the economy, and shows that different economic schools of thought have always co-existed (Schumacher 2019).

While teaching the history of economic thought thus has the potential to de-centre neoclassical economics and make alternative (potentially also: transformative) knowledge on economics visible, the way history of economic thought is taught – not only in Europe but in undergraduate programs around the world – reproduces dominant epistemes. The history told commonly starts with mercantilism, goes over to classical political economy with core thinkers such as Adam Smith or David Ricardo to then discuss the rise and fall of Keynesianism and neoclassical economics (e.g. Screpanti and Zamagni 2005). But who judges what knowledge is relevant for economic thought and on what basis? Why, for example, does the history of classical political economy begin with the Scottish moral philosopher Adam Smith and not with the Arab scholar Ibn Khaldoun, whose rather similar ideas on the division of labour reach back to the 14th century (Boulakia 1971)? Why is the 'herstory of economics' (Kuiper 2022) not part of this story and what role did unpaid care work mostly carried out by women play for the advent of capitalism (Federici 2004)? And if

[8] The concept of the pre-analytic vision goes back to Joseph Schumpeter, who says that analytic thinking is always preceded by basic assumptions about the world. In critical realism, these assumptions about what is (ontology), what can be known (epistemology), how something can be known (methodology), as well as the normative foundations of our knowledge can be summarised as pre-analytic vision.

mercantilism was based on economic policies that promoted the influx of gold and silver, why does the question of what the influx of gold and silver meant for the rest of the world (colonialism, extractivism, slavery etc.) not arise (Galeano 1973; Lane 2019)?

The epistemic injustices that Euro- and androcentrism create both for the specific example of teaching the history of economic thought for a more pluralist approach to economics and for transformation research more generally are evident. However, the practical challenge of exercising JR – combined with the fact that teaching is structurally devalued in neoliberal academia (Buch-Hansen, Nesterova, and Nielsen 2025) – makes it difficult to teach transformative knowledge in a setting where some knowledge is dominant (e.g. ready to be taught from textbooks) and time to compile alternatives is limited.[9] The ecofeminist Vandana Shiva (1993, 12) once wrote: 'Dominant scientific knowledge thus breeds a monoculture of the mind [... and] also destroys the very conditions for alternatives to exist'. This tendency is exacerbated in the era of artificial intelligence, where large language models such as ChatGPT bring dis-embodied and dis-embedded knowledge, which reproduces andro- and Eurocentrism in knowledge production (e.g. Hosseini 2024), to whole new levels.

Path Dependencies in Future Scenarios

Let us consider a second example: Future-orientation plays an important role in transformation research. As outlined above, any kind of transformation research is (more or less explicitly) normatively oriented towards desired future goals and interested in the conditions and obstacles for achieving them. We argue that future-orientation cannot be neutral, but rather contributes to future-making and is often characterised by a lack of power-sensitive JR.

A case of transformation research that ventures beyond the status quo are the emission and mitigation scenarios developed by the Intergovernmental Panel on Climate Change (IPCC), which aim to demonstrate different pathways towards the 1.5°C target. The IPCC is regarded as the foremost authority on climate research and therefore one of the most relevant sources of knowledge for both researchers and policy-makers in the area of sustainability. The IPCC sees its own role as a 'mapmaker' for policymaking (Beck and Oomen 2021). The map it provides consists of 'five contrasted storylines and quantified projections for key variables, such as economic growth, income, fossil fuel availability or population' (Cointe and Pottier

[9] In her own teaching, one of the authors due to the practical challenge of JR and a lack of alternative textbooks stuck to the commonly told history of economic thought but tried to make andro- and Eurocentrism in this history visible through critical questions and omissive critique.

2023, 9). These reference scenarios are then used by integrated assessment modellers in order to project different future developments in social and ecological terms.

Several studies point towards the IPCC's co-productive role in this regard (e.g. Beck and Oomen 2021; Braunreiter et al. 2021; Cointe and Pottier 2023). It is argued that scenarios have a performative power as 'images of the future shape and structure actions in the present' (Braunreiter et al. 2021, 3). This is particularly problematic if possible futures are constrained by selection bias in the model structure or in modellers' mindsets. Critical research shows that the models are too techno-optimistic, can hardly account for socio-political ruptures or behavioural changes (Beck and Oomen 2021), take economic growth for granted (Cointe and Pottier 2023), focus on cost-efficiency, and represent the worldviews of a small Northern elite (Braunreiter et al. 2021). Considering the IPCC's great influence on climate politics, it becomes clear why scenarios 'are not just portraying possible futures but also exercise a "world-making" power in bringing these futures into being' (ibid.:3).

The world-making power of scenario-building, anticipation, and future studies highlights the importance of JR to avoid simply perpetuating the present and thus limiting the openness and changeability of the future. The risk of path dependency is high, since Integrated Assessment Models (IAMs) often extrapolate 'past trends into the future' (Beck and Oomen 2021, 175). This is a trend that again is exacerbated by AI, which – as the potentiality of the model is significantly constrained by the training data set – displays a certain epistemic conservatism (Lopez 2025). For example, a recent study of climate change narratives generated by ChatGPT shows that neither issues of 'differentiated responsibilities' and structural causes nor non-Western perspectives on climate change play a role in the stories generated (Sommer and von Querfurth 2024).

Is there a power-sensitive way for exercising JR for the benefit of future studies? From a critical realist perspective, future studies are often viewed with scepticism (Patomäki and Morgan 2024, 725f.), because the attempt to study the future is associated with positivist assumptions of event regularities and their extrapolation over time. However, there are critical realist conceptualisations for exploring transformative potentials and the conditions for their future actualisation (e.g. Fleetwood and Hesketh 2006; Patomäki 2006; Schoppek 2021). What these approaches have in common is the assumption that possible futures must develop from structural conditions in the present. Exercising JR against this background means detecting these potentials alongside empirical trends and to take the causal powers of transformative agency seriously (Patomäki and Morgan 2024). Precisely because future studies are involved in the co-production of the future, it is important to reflect on the limits

of the modellers' own imagination and biases such as andro- and Eurocentrism inscribed in the model. Instead of promoting probable and plausible futures, the whole spectrum of possible futures should be considered and preferable futures justified.[10]

Epistemic Injustices in Degrowth Research

Having discussed andro- and Eurocentrism in teaching pluralist economics and path dependencies in more mainstream approaches of transformation research, this section introduces degrowth as a field of research that sees itself in the service of transformative knowledge. By pointing towards epistemic injustices in knowledge production for a degrowth transformation, we argue that even research on transformation that makes normative assumptions explicit and embraces power-sensitive theoretical approaches, is not immune to the practical and political challenges JR poses.[11]

Degrowth, as an inter- and transdisciplinary academic discourse that has developed since the early 2000s[12], follows the normative aim of a good and meaningful life for all within planetary boundaries (e.g. D'Alisa, Demaria, and Kallis 2015; Hickel 2020; Schmelzer, Vetter, and Vansintjan 2022). Starting out as a niche discourse, the failure to decouple environmental impact from economic growth through innovation fast enough to meet the Paris agreement (Keyßer and Lenzen 2021), has made degrowth more eminent in the political arena. For example, the IPCC (2023) AR6 Synthesis Report attests a 'rapidly closing window of opportunity to secure a liveable and sustainable future for all' (ibid., 88) and the latest IPCC (as well as IPBES) reports acknowledge degrowth and post-growth several times. Nevertheless, as we have shown, the main IAMs used in climate mitigation modelling do not include degrowth scenarios.

Trying to rectify this omission, recent projects, such as the EU-funded €5 Mio. Horizon Europe Research and Innovation Action *Models, Assessment, and Policies for Sustainability* (MAPS) with its broad post-growth consortium aim at developing modules for IAMs that improve the representation of drivers for transformative change and develop post-growth scenarios as new mitigation options. In this project, notable efforts to live up to intersectional and also epistemic justice exist, as for example outlined in the *MAPS Project Guidelines on Intersectional Justice* (Patki et al. 2025). At the same time, EU funding logics can easily lead

[10] These terms are taken from the future planning heuristic 'future cone' (Voros 2003, as cited by Beck and Oomen 2021). Futures are ranked according to their estimated likelihood ranging from possible to plausible futures.

[11] As examples, we chose two projects, in which we are involved: MAPS (www.mapsresearch.eu) and the DFG network 'Global Politics of Post-Growth'.

[12] An important milestone was the first international degrowth conference 2008 in Paris, with conferences now taking place (bi-)annually, the most recent ones being hosted in Zagreb 2023, Pontevedra 2024, and Oslo 2025.

to Eurocentrism by focusing on policies for and in the EU and neglecting structural questions of ecological debt and reparations that a degrowth global justice agenda should push for. Moreover, the practical challenges of exercising JR outlined above are reproduced and accelerated in the context of third-party funded research projects, where silo thinking and top-down decision processes are favoured due to deadline and publication pressure (Buch-Hansen, Nesterova, and Nielsen 2025). Against this background, we argue that it is a particularly critical time for degrowth scholars to keep embracing their commitment to create transformative knowledge and to care-fully consider where, how much, in what, and for what price to lean-in(to which logics). Being aware of the danger of dis-embedding and dis-embodying scholarship when scaling it up as well as of epistemic injustices and tendencies to the status quo that come along with these scaling processes can help to reflect upon these challenges and – wherever possible – counteract them.

Not only the practical but also the political challenges of exercising JR pertain in degrowth scholarship. An example here is the DFG-funded scientific network 'The Global Politics of Post-Growth' that examines post-growth discourses and policymaking in transnational settings (Hasselbalch, Kranke, and Chertkovskaya 2023; Hasselbalch and Kranke 2024). While bringing degrowth to the stage of international relations (IR) and international political economy (IPE) offers important insights, researching transnational post-growth politics might easily reproduce Euro- and androcentrism in knowledge production. From the very beginning, degrowth was inspired by debates in the Global South (e.g. post-development, postcolonial feminisms, concepts such as *buen vivir* and ubuntu, and anti-extractivist resistance around the world), debates that Arturo Escobar (2015) would see as 'fellow travellers' of degrowth. At the current conjuncture, degrowth needs to be careful not to relegate these topics as 'case studies', while dominant knowledge in IR, IPE, and IAMs – with all the epistemic injustices and tendencies to the status quo that come with it – is reproduced. Countering this tendency means to open up the way for omissive critique, such as Miriam Lang's (2024:927) observation that 'it is problematic that degrowth proponents formulate their policy proposals mainly just "from and for the Global North", without analytically engaging with the deep entanglements and interdependencies in our modern-colonial globalised world'. A global political economy of post-growth needs to reveal implicit norms, embrace 'place-and-body political epistemologies' (Meyerhoff and Noterman 2019: 226), and by means of continuous reflexivity foster a power-sensitive approach to judgemental rationality to continue producing transformative knowledge.

Conclusions

The aim of this discussion paper is to draw attention to and to analyse the hidden power relations in knowledge production and their consequences for transformative knowledge and action. The question of power is still underdeveloped in critical realist approaches to judgemental rationality. While Armstrong (2024) has recently focussed on theories' 'prescriptive power', i.e. their practical consequences, we concentrated on the questions of how the production of explanations and prescriptions itself is affected by power relations. As critical realists, we assume that knowledge, epistemes, and discourses can and often do have causal effects on our actions, and that certain bodies of knowledge, epistemes, and discourses better correspond to the real world than others (Molinari 2024). Exercising judgemental rationality is hence not only an abstract philosophical undertaking in truth-seeking but truth-seeking is also inherently power-laden and powerful (Armstrong 2024; Isaksen et al. 2024). We have argued that researchers must be aware of the philosophical, the practical, and the political challenges that they are confronted with when choosing one theory or explanation over another. Using three examples from research and teaching in the area of transformation research, we have shown that andro- and Eurocentrism and path-dependencies constrain the creation of transformative knowledge for alternative futures. Proactively addressing these challenges requires scrutinising one's own blank spots, becoming aware of drivers of epistemic injustice in neoliberal academia, and approaching judgemental rationality as a collective endeavour. Being aware of that which is missing ('omissive critique') and promoting its inclusion, combined with a continuous reflection of one's positionality and how it influences judgemental rationality, is a powerful, albeit not perfect, strategy to move towards a power-sensitive approach to judgemental rationality in transformation research.

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