



What counts as relevant criticism? Longino's critical contextual empiricism and the feminist criticism of mainstream economics

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ABSTRACT

I identify and resolve an internal tension in Critical Contextual Empiricism (CCE) – the normative account of science developed by Helen Longino. CCE includes two seemingly conflicting principles: on one hand, the cognitive goals of epistemic communities should be open to critical discussion (the *openness of goals to criticism* principle, OGC); on the other hand, criticism must be aligned with the cognitive goals of that community to count as “relevant” and thus require a response (the *goal-relativity of response-requiring criticism* principle, GRC). The co-existence of OGC and GRC enables one to draw both approving and condemning judgments about a situation in which an epistemic community ignores criticism against its goals. This tension results from conflating two contexts of argumentation that require different regulative standards. In the *first-level scientific discussion*, GRC is a reasonable principle but OGC is not; in the *meta-level discussion about science*, the reverse holds. In meta-level discussion, the relevance of criticism can be established by appealing to goals of science that are more general than the goals of a specific epistemic community. To illustrate my revision of CCE, I discuss why feminist economists' criticism of the narrowness of the goals pursued in mainstream economics is relevant criticism.

1. Introduction

Economics has always been a contested discipline, not only because of the uncertainty stemming from the enormous complexity of its subject matter but also because of disagreements regarding what exactly that subject matter is, or more generally what economics is (Backhouse & Medema, 2009). This is unfortunate, considering that purposeful joint activities (which research certainly is) usually lead to better results if there is clarity about the purpose and a shared understanding among the participants about what it is they are trying to do together. Moreover, such frictions in collective epistemic activities may have serious consequences, given that high hopes are placed on economics to help humankind in solving its pressing societal and environmental problems. The same obviously applies to any other discipline or research program facing similar problems.

Helen Longino's (1990, 2002) Critical Contextual Empiricism (CCE) is a promising candidate for providing guidance on how debates about the future of economics should proceed. After all, it is a normative account of science¹ which puts a special emphasis on the social and processual nature of science, and which assigns a central role to dissent and criticism. Several philosophers and methodologists of economics

have indeed drawn on CCE to comment on the state of economics and to envision desirable future developments in the discipline (Gräbner & Strunk, 2020; Lari, in press; Larue, 2022). CCE has also been used to evaluate and suggest improvements to the functioning of various other research fields and areas, ranging from biomedical research (Jukola, 2015) to indigenous studies (Koskinen, 2015). It has also evoked significant critical attention over the years (Borgerson, 2011; Büter, 2010; Freedman, 2009; Hicks, 2011; Intemann & de Melo-Martín, 2014; Kitcher, 2002; Leuschner, 2012; Miller, 2015; Ruphy, 2006; Solomon & Richardson, 2005), but this examination has not been exhaustive, as this paper will show.

In this paper, I expose a previously neglected problem in CCE that currently renders the framework unable to make sense of an important type of criticism and dissent in economics – criticism that is directed at the kind of cognitive goals that are pursued by economists and can be achieved by using the methods they use. Put another way, CCE as it stands can only make sense of criticism according to which certain assumptions, methods, or other commitments are not up to their task, but it leads to confusion on issues in which the task itself is contested. This is due to an internal tension related to the contextualist nature of CCE. On the one hand, the standards for the evaluation of argumentation and

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¹ In this paper, I use the word “science” to refer to both the natural and the social sciences.

reasoning are context-dependent, and Longino emphasizes that good criticism makes sense from the receiver's perspective, but on the other hand there should also be room for criticism that challenges that very perspective. The room for the more fundamental kind of criticism is seriously restricted by certain contextualist elements of Longino's account. This is clearly an implication unintended by Longino (see section 2.2).

More specifically, I argue that in the exposition of CCE, Longino commits herself to two normative principles that are in tension with each other (section 2). The first one can be labeled the *openness of goals to criticism* principle (OGC), while the other can be called the *goal-relativity of response-requiring criticism* principle (GRC). I illustrate the problem by discussing a particular strand of feminist criticism of mainstream economics that questions some fundamental commitments of economics regarding what kind of knowledge economists should and should not aspire towards in the first place (section 3). The two respective principles lead to opposing conclusions regarding whether the criticism in question is "relevant" to economists in the sense that they should engage with the critics. In section 4, I demonstrate that the problem results from conflating two levels of argumentation, which I call the *scientific discussion proper* or the *first-level scientific discussion*, on the one hand, and the *meta-scientific discussion* or *second-level scientific discussion*, on the other hand. I argue that the feminist criticism is located at the second level, and that the GRC is a not a reasonable principle in the second-level discussion. I then examine which discussion-regulating norms should take the place of GRC in the second-level discussions. I argue that appealing to a reasonable conception of the goals of science is a sufficient condition to make arguments worthy of attention and response in the second-level discussions. In section 5, I discuss the implications of this analysis to the feminist criticism in question. Section 6 concludes the paper.

2. Two principles

2.1. Relevant features of CCE: contextuality, value management, and necessity of criticism

In this section, I highlight the two conflicting principles in CCE. As an orientation to the discussion, let us recall some key ingredients of CCE. First, I want to note the word "Contextual" in "Critical Contextual Empiricism". CCE aims to understand and take seriously the variation in scientific reasoning and argumentation across epistemic communities. Epistemic communities vary in their goals – *about what* they seek to attain knowledge, and *what kind* of knowledge they seek to attain about it. They also vary in what kind of background assumptions are endorsed by, and are customary among, members of those communities. Here, background assumptions are understood as a mixed bag of beliefs and other commitments that are at any given time either consciously or unconsciously accepted to guide inquiry (Rolin, 2011). These may include substantial assumptions about the entities and processes in the domain of inquiry as well as views about the suitable methods of data collection and analysis. Background assumptions are also needed to close the logical gap between evidence and hypotheses. Epistemic communities also differ with respect to the values that are relied on when evaluating the epistemic merit of theories and models (e.g., empirical adequacy, unification, explanatory power) as well as the values that are relied on when evaluating the importance, relevance, or significance of those theories and models (e.g., satisfaction of curiosity, advancement of human wellbeing, or usefulness for policy advice in one area or another). Some of this variation in assumptions and values is due to differing goals, as when the achievement of different kinds of knowledge requires collecting different kinds of data or employing different standards of precision, but path-dependency and "inherited tradition" (Longino, 2002, p. 186) also play a role. These background assumptions, values, and goals make up what Longino calls the "public standards" of a given epistemic community (Longino, 2002, p. 130;

2004, p. 134).

Another core point is the replacement of the value-free ideal of science with the "social value management" ideal (Longino, 2002, p. 50), which demands that "the role of non-epistemic values be analyzed, criticized, and judged as either acceptable or unacceptable" in interaction among the members of the relevant epistemic community (Rolin, 2017a, p. 114). Both background assumptions and what *prima facie* seem like purely epistemic (or cognitive) values may come with ethical or political implications, and may even be motivated, consciously or not, by such ethical or political considerations.² Furthermore, the choice and prioritization of goals and projects are clearly intertwined with ethical and political values. The inescapable involvement of ethical and political values in science suggests that these value commitments must be transparent and open to criticism.³

A third conviction is the necessity of criticism among the members of epistemic communities, and the potential value of criticism by outsiders to those communities. Criticism promotes the reliability of science, when members of the scientific community discover each other's mistakes, suggest alternative interpretations of evidence, point out implicit assumptions, check if achieved results are replicable, and in other ways critically evaluate the tenability of each other's research. Criticism also promotes the transparency of values, when critics can point out how revising implicit value commitments could lead to alternative interpretations and ways of reasoning.

2.2. OGC

With those preliminaries in place, the following principle should be understandable. Longino argues that the cognitive goals of epistemic communities should be open to criticism. In other words, the necessity of an ongoing process of "transformative criticism" (Longino, 2002, p. 134) applies not only to assumptions involved in research but also to conceptions of what kind of knowledge the community should aim to produce in the first place.⁴ Longino makes this commitment most explicitly in chapters seven and eight of *The Fate of Knowledge*. She writes, "Criticism plays a role [...] in determining the validity of cognitive standards and of cognitive goals" (Longino, 2002, p. 164). Similarly, she explains that the goals of epistemic communities, along with their assumptions, "are subject to critical scrutiny, debate and defense" (Longino, 2002, p. 186).

Moreover, although in (1993) Longino does not use the expression "cognitive goals", she favorably cites the feminist economists who seek to redefine economics as a discipline whose subject matter includes nonmarket activities such as unpaid domestic labor and child-rearing, on the grounds that these are part of the "provisioning of human life, that is, on the commodities and processes necessary to human survival" (J. A. Nelson, 1993, p. 32). She also criticizes mainstream economics for only studying an unacceptably small subset "of the possible kinds of process underlying the production and distribution of goods and

² Longino claims that there is some acceptable or even recommendable role for ethical and political values in influencing scientists' choices of background assumptions (Longino, 1990, pp. 187–194) and that even *prima facie* epistemic values may be chosen or prioritized in light of clearly non-epistemic values (Longino, 1996). This view is controversial (Ruphy, 2006), but the issue is separate from the topic of this paper.

³ Some authors (e.g., Kourany, 2010) would go further and argue that the values scientists commit themselves to must be specific and correct ones, such as equality.

⁴ By "cognitive goals" I here mean abstract notions about the kinds of knowledge a community pursues, and the kinds of general questions it sees as its task to answer. I take this to be what Longino (2002, p. 130) refers to as "overall cognitive aims". (I use "goals" in place of "aims" throughout for consistency). Lower-level cognitive goals such as estimating the true value of a parameter or answering a particular research question are not the focus of this paper.

services” (Longino, 1993, p. 167). Similarly, in (Longino, 2008, p. 73) she again mentions in a positive light the feminist criticism that specific representations of what economics is limit what economists think they should explain. Thus, Longino seems firmly committed to the view that the cognitive goals of economics (what economics should study, explain etc.) should be open to criticism and debate. Now, keeping in mind that all appropriate criticism of the commitments of an epistemic community requires a response (Longino, 1990, p. 78; 2002, p. 129), we see that the following principle is a part of CCE. Let us call it the “openness of goals to criticism” principle, or “OGC” for short:

[OGC] The cognitive goals of epistemic communities may be criticized, and this criticism must be responded to by defending or revising the criticized goals.

2.3.

The other principle that I want to highlight requires slightly more discussion. I will first explain the principle before turning to demonstrate that it is a part of CCE. I label it the “goal-relativity of response-requiring criticism” principle, or “GRC” for short:

[GRC] Criticism creates a duty of response if and only if it is relevant to the goals of the community that is the target of the criticism.

The principle builds on the reasonable idea that it is not helpful to criticize an assumption, a model, or a theory without taking into account what its purpose is. For example, microeconomic models should not be criticized for ignoring the psychological mechanisms behind regularities of behavior (such as the tendency of firms to set prices so that their marginal costs equal their marginal revenue) when the purpose of the model is not to portray those psychological mechanisms accurately but to use the observed regularities to make further predictions (such as how prices would react to reduced demand by consumers).

However, it seems clear that GRC conflicts with OGC, because if one criticizes a particular goal or suggests alternative goals to an epistemic community (as OGC encourages one to do), one is thereby *distracting* researchers from the pursuit of their original goals. The criticism does not even potentially help the community to reach its goals.

It is perhaps surprising that there is such a clear internal tension in CCE. Thus, I want to remind the reader how Longino commits herself to GRC. To start with, she expresses the GRC principle clearly in chapter six of *The Fate of Knowledge*, when discussing the so-called “public standards” norm (according to which epistemic communities should have standards in light of which the acceptability of reasoning can be intersubjectively evaluated).⁵ She clarifies that one purpose of the “public standards” norm is that it “limits the sorts of criticisms to which a community must attend to those which affect the satisfaction of its goals” (Longino, 2002, p. 133). Furthermore, regardless of this quote, the GRC principle can also be derived from two other commitments that Longino makes. First, it is a part of CCE that critics need to make their argument “relevant” to the target of the criticism, and this must be made by appealing to those “public standards” endorsed in the epistemic communities whose views are the target of the criticism (Longino, 2002, p. 130). The duty to respond to criticism arises if and only if the criticism

⁵ The concept of public standards is somewhat ambiguous in Longino’s work, and in different publications Longino characterizes what those standards may be in slightly different ways. Supposedly, the standards can include “both substantive principles and epistemic, as well as social, values” (Longino, 1990, p. 77), and they can also “include aims and goals of research, background assumptions, methodological stipulations, and ethical guidelines” (Longino, 2004, p. 134). However, for the present purposes it is not consequential what kind of items exactly can count as such standards. The relevant issue is the function the standards are supposed to have as *restraints* of what counts as relevant criticism.

appeals to those standards. Second, the standards of the community are supposed to be “subordinated to its overall cognitive aims, which will be implicit in its practices even if not fully explicit” (Longino, 2002, p. 130). Or, as Longino elsewhere writes, “Their [i.e. the standards’] status as regulative principles in some community depends on their continuing to serve the cognitive aims of that community” (Longino, 2004, p. 134). These two points – the requirement of criticism to appeal to the target community’s own standards, and that the appropriateness and validity of those standards is dependent on the community’s own goals – jointly entail that “relevant” or response-requiring criticism needs to adapt to the goals of the targeted community. That is, whether a particular criticism needs a response is dependent on whether it is helpful for, or aligned with, the goals of the targeted community. Hence the expression “goal-relativity of response-requiring criticism”.

But what are these “goals” or “overall cognitive aims” of an epistemic community that play a role in determining whether a criticism is relevant and requires a response? In principle, we could approach the question in two chief ways, which we might call an “externalist” and an “internalist” perspective. In the externalist perspective, the community in question is thought to have “real” or “correct” goals that are independent from the opinion of the scholars in the field to an extent that it is possible for the community to hold a mistaken consensus view about the goals. The correct view of the goals could in principle be something only understood by a minority, or even by no one in the community. I believe this is not the way to go, at least for the purposes of this paper, for reasons outlined below. The alternative I endorse is an internalist perspective, which holds that if there is a consensus among the community members on the fundamental goals, aims, or purposes of the community, then those goals, aims, or purposes are the ones we need to have in mind when thinking about the goal-relativity of response-requiring criticism.

I adopt the internalist perspective for two reasons. Firstly, a close reading of Longino suggests it. As noted above, Longino argues that the “overall cognitive aims [of a community] ... will be implicit in its practices” (Longino, 2002, p. 130). The implicit aims are thus characterized as something that can be discerned by closely examining the practices of the community or by inspecting the explicit statements of the community members. Second, as noted in the introduction, CCE has been widely understood as an account of science that should be applicable for the evaluation of actual scientific fields. Scholars look to CCE to find criteria with which to evaluate the objectivity and reliability of particular epistemic communities. But if we take an externalist view, according to which criticism should be judged in light of relevance to some “real” or “correct” goals, then CCE seems to lose some of its capacity to offer normative advice for scientific practice, if we cannot have a secure epistemic access to those “correct” goals. I doubt the possibility of such access: we cannot be very confident that our favored view of the proper goals of economics (or of any other discipline) is correct if others (such as the majority of practitioners themselves) disagree. For these reasons, Section 4 will look to economists’ established majority view for determining what are the relevant goals when considering the GRC principle in the context of economics. Being aware of the established view of the goals does not mean that the goals will remain immune to criticism: as section 4 will discuss, the goals can and should be critically discussed but in another argumentative context with different standards of argumentation.

3. The feminist criticism of mainstream economics

CCE is a normative account of science. In particular, it provides norms for how epistemic communities should handle dissent and criticism. Thus it makes sense to consider what the OGC and GRC principles mean regarding specific cases of dissent and criticism. In this section, I discuss OGC and GRC in light of a criticism that some feminist economists have expressed against mainstream economics. I focus first on the critics’ demands, postponing until section 5 conceivable

counterarguments to the criticism.

Before going further, a clarification is needed. Feminist economics is a broad research program, a “big umbrella” under which many methods and approaches fit (Espinell & Betancourt, 2022). It includes theoretical developments that have in time become mainstream, such as collective choice models of the household (Jacobsen, 2020). It also includes work that uncovers methodological flaws and cognitive biases in mainstream economic research that claims to find significant gender differences in behavior (J. A. Nelson, 2014, 2016).

These lines of criticism by feminist economists are not the focus of this paper. Rather, my focus is on a particular line of feminist criticism that comes from a tradition that is sometimes called “critical feminist economics” (Berik & Kongar, 2021a) or “heterodox feminist economics” (Hartmann & Milli, 2021) to distinguish it from more mainstream economic approaches to gender- and inequality-related issues. The criticism in question attacks mainstream economists’ ideas about the kind of knowledge that economics should produce. More specifically, in the critics’ view, mainstream economics pursues an unacceptably narrow set of cognitive goals. Let us call this *the narrowness-of-goals criticism*. Below, when I use the terms “feminist criticism” and “feminist critics”, I refer to the narrowness-of-goals criticism and the proponents of that criticism, unless otherwise specified.

The narrowness-of-goals criticism comes in different variants in feminist economics (and in other heterodox schools it comes in yet other variants), but the central contention is that the economics discipline should be committed to a broader range of cognitive goals than it conventionally is seen to include. While there arguably is no precisely specified definition of the goals of economics that all feminist economists would endorse, a recurring theme in the feminist economics literature is the need to study the economy (broadly understood, see below) in all its complexity from a wide range of perspectives. This means that a higher degree of diversity in terms of methods, concepts, and theoretical frameworks is needed than has been customary in economics.

For the purposes of this paper, it is not necessary to detail all aspects and variations of the criticism, so I will content myself with briefly introducing three ways in which the feminist criticism seeks to broaden the goals pursued in economics.

3.1. Displacing the central theoretical and conceptual framework

Many feminist economists oppose the central role that rational choice theory has in economics. For them, rational choice theory and the concepts and ideas associated with it (market exchange, optimization, preferences, etc.) should not have a prioritized standing in economics. Instead, many feminist economists place “social provisioning” as the subject matter of economics. Social provisioning refers to the “commodities and processes necessary to human survival” (J. A. Nelson, 1993, p. 32) and to the processes of securing the wellbeing of all people, which societies organize in a multitude of ways, of which market exchange is only one, and which are based on a multitude of motivations, of which self-interest is only one. Social provisioning includes activities conventionally understood as economic, but is not limited to them. It includes giving birth to and raising children, health care, paid and unpaid work, as well as trading in financial markets. By not giving pecuniary motives, market exchange, self-interest, and preferences (as opposed to real needs) an elevated position as the subject matter of economics, feminist economists aim to avoid naturalizing and taking as given the existing capitalist institutions and dynamics, and instead to leave room for critically examining the foundations of the current societal order (Power, 2004). According to the criticism, studying the manifold aspects of social provisioning, with the theoretical, conceptual, and methodological diversity required for the task, should be seen as the goal and duty of economics.

3.2. Understanding meaning-in-context

Although quantitative methods are popular in feminist economics (Barker & Kuiper, 2021; Tejani, 2019), many feminist economists argue that economists also need interpretivist qualitative methods such as participant observation and ethnography. Thus, this line of criticism involves the view that the kind of knowledge yielded by those methods – holistic understanding of meanings and experiences, or something along these lines – is an appropriate and valuable goal for economic research. In *The Routledge Handbook of Feminist Economics*, Peregrine Schwartz--Shea (2021, p. 145) writes that the virtue of the qualitative-interpretive approach is that it “enables understanding of meaning-in-context”. Other sources mention more specific questions that can be answered by using interpretive methods. Michèle Pujol (1997, pp. 119–120) reports having used interviews and surveys to understand aspects of a new pay equity legislation that could not be illuminated using conventional econometric methods:

How was pay equity perceived by the women it was supposed to help? Did these women understand the pay equity principles and the implementation process? Were the pay increases accompanied by a re-evaluation of women’s work?

Along the same lines, Günseli Berik (1997) explains that fieldwork such as open-ended interviews and participant observation can provide a deeper understanding of economic processes such as work-related discrimination, which only appear as unexplained residuals in econometric analyses:

Fieldwork in an industrial plant, for example, could provide insights on the processes of selective incorporation and exclusion of women workers in industrial employment, including sexual harassment, favoritism, discriminatory workings of gender-blind work rules. These processes help explain the outcomes of female representation in industry, occupational distributions and wage differentials. Such a study is critical to elucidate the nature of the inferred discrimination and to develop a model of discrimination that links process with outcomes. (Berik, 1997, p. 123)

3.3. Acquiring local and context-specific knowledge

Other authors focus not so much on the need for interpretivist methods but instead, or additionally, stress the need for local and context-specific knowledge of particular and untypical circumstances as opposed to ambitious generalizations.⁶ They call for a shift in the level of generality sought in empirical description. The rationale behind this demand is the desire to attend to the concerns of minorities and those in precarious social positions. Briefly, the aim is not to forget anyone’s concerns, as the people most likely to find their interests neglected are the people who are already in a vulnerable social position. This approach may require methods of data collection and analysis that are untypical in economics.

In a recent paper, Cheryl Doss (2021) urges feminist economists who study households not to be content with the methods of mainstream economics. While she endorses the need for qualitative methods, here I wish to highlight how she emphasizes the need for research to cover the *full range of diverse situations* people find themselves in. For her, a criterion of adequate understanding is sufficient attention to the diverse social contexts that shape people’s lives – “the complex web of relationships within the family and within communities that shapes individual behavior” (Doss, 2021, p. 10). In this pursuit, she writes, “the tools and assumptions of mainstream analysis seem to handicap us”

⁶ Mireles-Flores (2021, p. 549) describes the contrasting tendency of mainstream economists to brush aside exceptions in favor of “saving the generalizations”.

(Doss, 2021, p. 16), and what is needed is fieldwork and qualitative methods in addition to the methods typically used in household economics. According to Doss, only by broadening the methods can we hope to “fully understand intrahousehold dynamics” and “recognize the complexity and diversity of household types” (Doss, 2021, pp. 13–14).

For example, Doss argues that questions about intersectionality must not be ignored, even if sample sizes are too small for conventional methods. With the conventional methods that aim for clear causal identification, she explains, “we often cannot disaggregate our analyses by race or ethnicity or by looking at gay and lesbian households – much less by looking at lesbian households with members from minority groups” (Doss, 2021, p. 14). In her view, feminist economists have done well to “encourag[e] students to work on topics of social and political importance, even when the data have not allowed for the highest-quality quantitative methods” (2021, p. 15).

3.4. The mainstream position

Such feminist criticism has been around for at least three decades,⁷ but it has received very little attention from mainstream economists. For example, using the Web of Science database, I could find hardly any references to Julie A. Nelson’s (1995) paper “Feminism and economics” in mainstream economics journals, even though the paper was published in the *Journal of Economic Perspectives*, a high-quality journal published by the American Economic Association. In that paper, Nelson challenges, among other things, the definition of economics as a discipline dedicated to the study of rational choice.

Many publications by mainstream economists convey an opposing position, according to which aspirations toward understanding meaning-in-context and acquiring context-specific knowledge of local circumstances should not be seen as a part of economics, nor should economics be defined as the study of “social provisioning”. But these positions are not intended as responses to the feminist criticism. Nor can these texts be regarded as responses, because they do not include counterarguments to the criticism – they only demonstrate disagreement.

As I argued in section 2, we should examine what mainstream economists see as the goals of economics, and because carefully considered statements about this are rare, we should examine what goals the mainstream economics community has “implicit in its practices” (Longino, 2002, p. 130). Implicit goals can be found by inspecting how the discipline of economics is defined, what research is labeled as economics, who is understood to be an economist, and what analytical, theoretical, methodological or other starting points are described as fundamental, essential, or necessary for economics research. As elaborated below, today economics is mostly understood as a particular research approach, an intellectual toolbox to be applied to different phenomena, and a particular perspective on the world. The core elements of economics are understood to be formal modeling, statistical analysis, methodological individualism, and the use of equilibrium as a central concept. I argue that this reveals the established implicit view to be that the goal of economics is the production of knowledge from a certain perspective opened up by its core methodological starting points. In this view, it is not among the goals of economics to produce knowledge from altogether different methodological perspectives, nor to answer questions that are not answerable without giving up the core methodological commitments.

This meta-economic view has its roots in the nineteenth century, when the way to define the discipline of economics began to shift away from the study of the material subsistence of societies to the

⁷ Important milestones for feminist economics (of both the heterodox and the more mainstream variety) include the publication of the edited volume *Beyond Economic Man: Feminist Theory and Economics* (Ferber & Nelson, 1993) and the launch of the journal *Feminist Economics* in 1995.

“economizing behavior” of individual people (Backhouse & Medema, 2009). Lionel Robbins famously defined economics as “the science which studies human behavior as a relationship between ends and scarce means which have alternative uses”, explicitly contrasting this definition to the ones that define economics as the study of a particular phenomenon such as the “procuring of material welfare” (Robbins, 1932, pp. 12–16). For Robbins, then, the goal of economics is to understand a particular “economic aspect” of human behavior that arises from the necessity of choice in the face of scarcity. In line with the Robbins definition, Gary Becker (1976) labeled the combined assumptions of maximizing behavior, equilibrium, and stable preferences as “the economic approach to human behavior”. The implicit goal of the economist, in this view, is to study human behavior from the perspective provided by certain methodological starting points.

The methodology-focused view of economics is visible in contemporary textbooks such as *Economics* by Acemoglu et al. (2016), which explains that what differentiates economics from other social sciences is its emphasis on three “key concepts” or “principles”: optimization, equilibrium, and empiricism.⁸ In effect, the principles of optimization and equilibrium are methodological norms, because these concepts are supposed to be taken as starting points in modeling and as ingredients of explanations. In addition to textbooks, economists refer to essential methodological starting points in their occasional reflections on what economics is and is not. Diane Coyle (2009, p. 266) insists that economics, while encompassing a certain variety of approaches and perspectives, is nevertheless committed to some non-negotiable methodological principles:

The key elements of economic methodology, unchanged from the classical days, are the status of rational choice and the use of equilibrium as a modeling concept. If these are limitations, so be it: every subject has core restrictions in its methodology, which in fact represent its strengths and distinctive insights.

Coyle (2009, p. 232) is perfectly clear about her view: “Economics isn’t defined by its subject matter but by its way of thinking”.⁹ Dani Rodrik (2015, p. 7), in his influential book *Economics Rules*, while acknowledging that one can think of economics as “a social science devoted to understanding how the economy works”, expresses his preference for the view that “economics is a way of doing science, using particular tools”. In a classic economics-praising paper, Edward Lazear (2000, p. 100) considers economics and sociology to have an intrinsic difference in the kind of cognitive goals that they pursue: economists are interested in individuals’ optimizing behavior under constraints they face, while sociologists are interested in the constraints that individuals face.

We may permit imperfect information, transaction costs, and other intervening variables to muddy the waters, but we do not model behavior as being determined by forces beyond the control of the individual. Most sociologists, by contrast, argue that understanding the constraints is more important than understanding the behavior that results from optimization, given the constraints.

In sum, this is a case in which the cognitive goals pursued and reached in a scientific discipline are criticized for being unacceptably narrow, but this criticism has not received anything like a thorough response – only statements that convey disagreement with the critics. How does CCE judge such a situation?

⁸ By referring to empiricism as a distinctive characteristic of economics, the book gives a misleading impression that other social sciences are not empiricist.

⁹ Furthermore, Coyle (2009, p. 231) notes that many economists think that John Kenneth Galbraith, a long-time Professor of Economics in Harvard, “was never really one of us” or “a *bona fide* economist”, because despite covering the “terrain of economics” “he wasn’t a modeler” but used “the methods of sociology and history”.

The OGC and GRC principles pull in different directions. According to OGC, the goals of economics should be open to criticism, and that criticism requires an appropriate response. This can happen either in the form of a defense of the currently established beliefs and conventions about the goals of the discipline, or in the form of a change in the direction envisioned by the critics. But the GRC tells otherwise. Because the feminist criticism calls for the (more extensive) pursuit of some cognitive goals not currently being pursued in (most) economics research, it inevitably distracts economists from the pursuit of the goals they currently pursue, time and resources being limited. Thus, feminist criticism fails to be “relevant to the goals of the inquiring community” (Longino, 2002, p. 130) – in this case, the overwhelming majority of economists.¹⁰

Furthermore, does the feminist criticism appeal to the “publicly recognized standards by reference to which theories, hypotheses, and observational practices are evaluated” (Longino, 2002, p. 130) in economics? The ultimate motivation for the critics’ view that more comprehensive knowledge about social provisioning is needed lies in moral, social, and political values. According to feminist economists, the improvement of human well-being is the ultimate purpose of economic research (Berik & Kongar, 2021b). While at the very general level it is clear that most economists regard the improvement of human well-being as an important reason to pursue economic research, it is possible that the majority of economists do not share the same interpretation of well-being as the feminist economists. Mainstream normative economic analysis is built on a subjectivist view of well-being, and it outsources the ethical evaluation of distribution issues to policymakers (Hausman et al., 2017). In contrast, feminist economists tend to hold a favorable attitude towards objective-list theories of well-being, such as the capabilities approach, and they accept that ethical and social values and principles, such as equality and human rights, are an essential part of economic analysis (Balakrishnan & Heintz, 2021; Power, 2004; Robeyns, 2021). If the conception of well-being is different in the two respective camps, the criticism is based on concepts and ideas that are not shared by the targets of the criticism. Additionally, for many economists, even well-meaning aspirations do not justify deviating from the established standards and interpretations of “rigor”. The commitment to what they perceive as “scientific objectivity” is treated as a primary standard that should not be compromised for well-meaning social and political purposes.¹¹ Thus, one cannot appeal to the improvement of human well-being to introduce methods that are perceived as unrigorous or not objective. To sum up, the feminist criticism fails to respect the GRC principle both by intrinsically being a distraction from the cognitive goals pursued by the overwhelming majority of economists and also, arguably, by not appealing to standards of argumentation shared by the opponents.

The lesson to draw from this analysis is that the theoretical and conceptual problem identified in section 2 may also appear when analyzing actual cases of scientific criticism: as it stands, CCE seems to justify neglecting instances of criticism that according to the OGC principle (and according to the intuition of many people) are not justifiable cases of neglect. My point thus concerns first and foremost the

justification of the unresponsiveness of mainstream economists towards the feminist criticism and not the actual causes of the neglect. That said, the analysis also raises the question about how the relevance of the feminist and other heterodox criticisms is actually perceived by mainstream economists. It is possible that if heterodox economists’ criticism was framed or presented differently, such as along the lines sketched in the next section, the criticism might receive more attention. But this is by no means certain, as the epistemic community of economics falls short of the kind of ideal community envisioned by Longino (see e.g., Wright, 2023; Lari, in press).

4. Two contexts of argumentation

Let us now set aside the disagreements about economics for a while, and return to the problem with CCE. In this section, I propose how the tension between OGC and GRC should be resolved. Briefly, I argue that the two norms apply to different, non-overlapping levels of discussion, which can be conceptually separated even if in practice individual discussions and lines of argumentation may oscillate between the two. This solution is in line with the contextualism in CCE, according to which norms about scientific argumentation need to be attentive to the context of the argumentative situation. The two levels amount to two different contexts of argumentation, and the appropriateness of OGC, GRC, and possibly other norms of argumentation needs to be examined for each context separately.

To start with, there is the *scientific discussion proper*, or the *first-level scientific discussion*. A discussion is located at this level when it concerns the appropriateness of methods, assumptions, and other commitments in light of a given scientific project or cognitive goal. Here, one at least implicitly takes as given some conceptions of the overall goal, purpose, or aim of the scientific activity one is involved in. For example, if one criticizes the reliance on field experiments in development economics on the grounds that their results are not generalizable enough, one takes as given the cognitive goal of producing generalizable knowledge about developing economies. The defining characteristic of the scientific discussion proper is that arguments about methods, assumptions, theories, and other commitments are implicitly or explicitly arguments about their suitability as means to some ends. They are evaluated as a part of a certain kind of scientific practice, program, or activity and in light of some general cognitive goals. The GRC principle is reasonable at this level of argumentation, but the OGC principle is not.

However, sometimes a whole scientific field, discipline, or research program, with its associated fundamental cognitive goals, is put into question – explicitly or implicitly. I propose that this should be understood as a *meta-scientific discussion* or *second-level scientific discussion*, in which the appropriateness of arguments should be assessed on the basis of norms that are different from the scientific discussion proper. A criticism or argument should be understood and evaluated as second-level criticism not only when it explicitly claims that the ultimate goals of an epistemic community are misplaced or inadequate but also when – as in the case of the feminist criticism – the criticism advocates for changing assumptions, methods, theories, or other commitments in a way that conflicts with an established view of the goals of the relevant epistemic community. Assenting to such criticism would imply that the goal (or purpose, self-conception, etc.) of the community in effect becomes altered. Second-level discussion concerns not the appropriateness of methods and other commitments to some ends but the desirability and value of those ends themselves, or related questions such as the division of labor between epistemic communities. The goals pursued by various epistemic communities may be critically reflected in light of what various groups in the wider society actually expect science to deliver, and in light of philosophical arguments about what really is valuable in the normative, ethical sense. Furthermore, one may reflect on the appropriate division of cognitive labor between scientific disciplines: which researchers should pursue the goals that are deemed valuable (the next section will connect this question to the feminist criticism of

¹⁰ Epistemic communities can rarely be demarcated fully precisely, and this applies also to the case at hand. However, this does not affect the argument in the present paper, because the mainstream position is so popular relative to the dissenting position. Even if we count critical feminist economists and other heterodox economists as members of the same epistemic community as the mainstream economists, the methodology-focused view of the goals of economics is still a clear majority view.

¹¹ The alternative would be to treat standards flexibly, so that important questions that are not (yet) amenable to “rigorous” and precise study could be tentatively explored, albeit imprecisely. This point has been made by both dissenting mainstream economists (Akerlof, 2020) and feminist critics (Doss, 2021).

mainstream economics). In the meta-level discussion, the GRC principle is not reasonable, as insisting that the critic be helpful for the advancement of a goal would be a circular reply to a critic who specifically contests the goal. Instead, OGC applies, as having room for challenging the goals (their value, prioritization, etc.) is the whole point of demarcating this separate context of argumentation. Many expressions of dissent by heterodox feminist economists, and by other heterodox economists, should be understood as second-level criticism. When making these criticisms, the critics challenge some conceptions of what kind of methods or theoretical frameworks economists should use, not because they are not fit for the task but because the critics disagree on the task itself.

If the GRC principle should not regulate meta-level discussions, one may wonder whether we are left without any restrictions of response-requiring criticism in meta-level discussions, and thus whether every criticism must be responded to. This is not the case. In addition to GRC, Longino's exposition of CCE contains other criteria of what counts as criticism that needs to be taken seriously, paid attention to, and/or responded to. Or, using a phrase adopted by some philosophers, it contains other criteria of what counts as "normatively appropriate dissent" (Intemann & de Melo-Martín, 2014; Rolin, 2017b). Relaxing the GRC norm leaves these other conditions of normatively appropriate dissent intact. As in scientific discussion proper, so in the meta-level discussions about science it is a reasonable norm that the discussants should not keep repeating the same criticism over and over again after receiving an adequate response. Furthermore, it is also reasonable at the meta-level that when a multitude of critics challenges a whole discipline or research program, the responsibility for engaging with the critics should not fall on a small number of researchers in a way that would unfairly and excessively burden them (Rolin, 2017b).

However, what we should give up is the idea that appropriate criticism should always be relevant to the criticized epistemic community's goals, and the associated idea that criticism should always appeal to standards of argumentation that the targeted community endorses because of their conduciveness to the community's goals. In the second-level discussion, this is an unreasonable requirement. I do not mean that *irrelevant* criticism is useful and should be encouraged and engaged with. Rather, in the meta-level discussions the correct notion of relevance is something other than relevance in light of the targeted community's goals. What is it, then?

While arguments for and against choices and commitments of epistemic communities are made in light of ideas about the community's cognitive goals, those goals in turn should be discussed in light of ideas about the goals of science in general. In my view, the most credible views about the ultimate goals of science refer not only to the cognitive content that science produces – illuminating explanations, true theories, accurate predictions, and so on – but also to the way this cognitive content serves human interests (and possibly the interests of non-human beings). Philosophers such as Philip Kitcher (2001, 2011) have argued that the significance of scientific inquiries stems from their capacity both to satisfy human curiosity and to provide practically useful knowledge. That the goals of science include benefiting humanity in various ways is also acknowledged by scientists in publications such as the *Statement on Scientific Freedom and Responsibility* by the American Association for the Advancement of Science, which portrays responsible science as being conducted and applied "in the interest of humanity", "for the benefit of all", and "in a spirit of stewardship for the environment" (AAAS *Statement on Scientific Freedom and Responsibility*, 2017).

I argue that just as first-level scientific argumentation gains its relevance from a connection to the goals of that community, the second-level argumentation gains its relevance from a connection to the values and goods the advancement of which is widely accepted to be appropriate for science in general. While some disagreement exists on the issue, there is sufficient consensus among not only scientists but also philosophers and the educated public that science is about the pursuit of cognitive goods – knowledge, understanding, and problem-solving – the

achievement of which is sometimes useful for practical and societal ends, sometimes for their own sake. For example, while in first-level discussion the defense of an idealized model can invoke a cognitive goal such as the sufficiently accurate prediction of an economic phenomenon, a meta-level argument defending the aspiration towards accurate predictions can point out that the prediction of economic phenomena is valuable for practical reasons such as deciding on policy interventions. Here, the increased ability to manage and control micro- and macroeconomic phenomena is referred to as a value or good that is appropriate for science to promote.

Notice that such reference to values and goods only establishes the *relevance* of a criticism – that it deserves attention and should be responded to. It obviously does not mean anything regarding the *soundness* of the critical argument. For that purpose, the facts and the form of the argument need to be right. In particular, for arguing that a particular epistemic community should pursue or prioritize a specific cognitive goal, one must not only argue that the goal is valuable but also take a stand on relevant facts such as those concerning the ability of the community to pursue the preferred goal effectively and the viability of the division of epistemic labor, whereby the goal is best reached through the efforts of some other epistemic community. Also, "opportunity costs" – a favorite term of economists – must be considered in any argument about setting goals: what alternative aspirations need to be deprioritized or given up when one goal is given more weight than before (Lari & Mäki, in press)?

5. Revisiting the criticism of mainstream economics

Let us now return to the feminist economists' narrowness-of-goals criticism, while keeping in mind that it is meta-level criticism in which economics is the *subject matter* and not the argumentative context.¹²

Economics has been changing in many ways in directions endorsed by close-to-mainstream feminist critics, albeit arguably not in reaction

¹² For readers familiar with Julie Nelson's work, it may be surprising that I characterize some of her arguments as meta-level criticism of economics. Some of Nelson's work indeed seeks to demonstrate that mainstream economics fails in reaching its own goals and is thus first-level criticism. This includes her work pointing out deficiencies in studies that claim to find significant gender-related differences in risk attitudes (J. A. Nelson, 2014, 2016). Nelson's arguments about the biases inherent in the mainstream view (e.g., J. A. Nelson, 1993, 1995, 1996) are a more complex issue. Nelson criticizes mainstream economics for being biased on the grounds that its ideals of knowledge (detachedness, abstraction, generality, etc.) are ones that have traditionally been associated with masculinity rather than femininity (which is associated with concreteness, practical concerns, subjectivity, emotion, etc.). She seeks to replace the ideal with a more balanced one that is open to both masculine- and feminine-associated attributes. Nelson argues that eliminating the bias would improve economic research and make it more reliable, scientific, and "strongly objective", which may suggest that her criticism helps mainstream economists in reaching their cognitive goals. Mainstream economists may see some of the points endorsed by Nelson as being in line of what they are doing, such as the (now mainstream) point that wages can be affected by the "feminine" sides of human behavior, such as a concern for fairness. However, her core criticism which seeks to displace the dominant self-understanding of economics as the "science of rational choice under scarcity" with a broader "study of social provisioning" must be understood as a criticism of the very goals of the economics discipline. Her view that such a definition is the result of a "masculine bias", even if true, does not mean that economics is failing at its own goals. This would require that the goals of economics include producing knowledge that is free from a masculine bias. Nelson herself seems to admit that this is an unwarranted assumption and that there is a bite-the-bullet strategy available to economists in response to her critique: "If this is masculine economics, so be it" (J. A. Nelson, 1995, p. 133). Compare this to Coyle's (2009, p. 266) remark, "If these are limitations, so be it." Thanks to an anonymous reviewer for pushing me to clarify the issue.

to those critics. Such directions include the “empirical turn” and the increasing recognition of complexity, with the associated shift from grand questions to smaller questions (Holt et al., 2011), as well as the appreciation of contextual variation in economic phenomena, which entails that the answer to many questions is “it depends” (Rodrik, 2015).

However, it is against the ideals of CCE that feminist economists’ narrowness-of-goals criticism remains neglected. The analysis presented in this paper shows that it is relevant criticism and thus should be responded to. But the relevance stems not from appeals to some standards of argumentation that mainstream economists are committed to as members of their epistemic community. Instead, the relevance stems from appeals to ethical and social values, such as equality and justice, that scientific research can help advance. It is a well-recognized goal for the social sciences to provide knowledge and understanding that can help us to shape societies in a better direction. The natural sciences can also help in this cause – for example by providing the information that human beings are not divided into biological races. Members of various scientific disciplines are expected to recognize the relevance of the invoked values in meta-scientific discussions, not because they endorse those values personally or as members of particular epistemic communities, but because the values represent reasonable conceptions of the aims of science. It is the feminist critics’ claim that their proposal should be accepted for the sake of the advancement of equality, for the sake of the creation of a just society, and for other similar purposes that demands the addressees’ attention and consideration.¹³

However, even if the critics present arguments worthy of consideration, this does not mean that the critics are right and economics should be drastically reformed. Economists defending the status quo have counterarguments at their disposal (which I can only mention briefly here). In principle, the defendants could question the values (or the precise meaning thereof) to which the critics appeal. However, a more promising line of response would develop counterarguments related to the division of epistemic labor and specialization. The astonishing complexity of factual questions about these issues should not be overlooked. For example, in a review of Joyce Jacobsen’s textbook *An Advanced Introduction to Feminist Economics* (Jacobsen, 2020), in which Jacobsen endorses the diversification of methods used in economics, Julie Nelson (2022) anticipates that many economists would reply to Jacobsen that qualitatively oriented research by heterodox feminist economists would find a better home in sociology departments, where the know-how and tradition of using these methods already exists. Nelson dismisses this alternative too hastily. In fact, the best solution to the presumed need to increase the use of qualitative methods in the study of the economy may really be to support that kind of research in other disciplines instead of bringing that research inside the institutional boundaries of economics. Or it may not be the best solution, for example because other social sciences enjoy smaller societal influence than economics does. We do not know at the moment, as this question has not been explicitly discussed (to a large extent, at least).

6. Conclusion

In this paper, I have pointed out how a certain line of heterodox feminist criticism has received hardly any attention from mainstream economists. At first sight, this situation might be seen to gain approval from CCE, as one might refer to the contextualist conviction that whether scientific criticism is worthy of attention should be evaluated according to standards that help the community targeted by the criticism to achieve its cognitive goals. However, such a view would forget that the criticism in question is not first-level but second-level

¹³ A discussant who does not count the advancement of equality as an improvement would still have to recognize that feminist economists are appealing to the more abstract idea of improving society, which is a broadly accepted goal for the social sciences.

criticism—a distinction missing from Longino’s exposition of CCE. That is, the criticism does not question the mainstream reasoning, methods, and assumptions because of their inadequacy for the task they are properly used for. Instead, it highlights other cognitive goals for which they are not adequate and argues that the importance of those cognitive goals necessitates an alternative, more comprehensive toolbox of methods and approaches.

A similar analysis could be conducted of other lines of heterodox criticism of mainstream economics in which the dissent concerns what cognitive goals the discipline of economics should set itself in the first place. For example, some heterodox economists believe that the Cambridge controversies in capital theory (Harcourt, 1972) ended when neoclassical economists lost interest in continuing the debate with their post-Keynesian critics, despite admitting (Hahn, 1975; Samuelson, 1966) that the critics were right in some of their claims. However, this storyline ignores that the post-Keynesian dissent partly concerned questions about cognitive goals – what kinds of explanations economists should strive for (Cohen, 1984; Dow, 1980). To my knowledge, an appropriate discussion of this meta-level question did not take place, similarly to the case of heterodox feminist criticism. Curiously, however, the feminist criticism differs from the dissent involved in the Cambridge controversies in that the feminists have made it more explicit what *value-related* reasons they have for the claim that economics should revise its set of cognitive goals.

Admittedly, this paper only provides a first pass on developing proper guidelines for the evaluation of whether dissent about the cognitive goals of an epistemic community is worthy of attention and response. More work is needed, but I hope to have made clear that a crucial first step is to recognize that this kind of dissent cannot be assessed with same standards as dissent concerning first-level scientific questions; that is, standards revolving around the adequacy of certain methods, models, assumptions, and so on, given a fixed cognitive goal.

Economics is increasingly being urged to be a more helpful discipline in the face of growing social problems and impending ecological disasters. Many believe that the knowledge economics currently provides is too narrow to help us much with these issues, and as a remedy they advocate pluralism in the form of a proliferation of approaches and schools of thought, each providing its own kind of understanding. The correct response by economists is neither to brush the criticism aside nor to adopt pluralism unreflectively, but to engage in constructive meta-level discussion by clarifying which kinds of questions the currently used methods enable economists to answer, and how these questions relate to the whole set of societally pressing questions, as well as the set of questions that other disciplines are more prepared to answer.

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