Virtuous Repertoires for Postcolonial Bioethics:
The Case of Coccinia abyssinica Research

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Abstract

Scientific research, particularly in international collaborations, operates within a complex web of expert-driven practices, legal regulations, and ethical considerations that are often distanced from local and regional participation. While ethical, legal and social initiatives to govern science have attempted to bridge this gap, the good governance of science, especially in cases marked by historical power imbalances, remains a significant challenge. Existing governance structures, often influenced by national or supranational legal frameworks and cosmopolitan ideals, may not adequately address the nuances of international, privately funded, or postcolonial research landscapes. This paper addresses related limitations, particularly in the case of international scientific collaborations involving the Global South. It argues that current governance models, while aspiring to universalism, can inadvertently perpetuate injustices and overlook local values and needs. Using the case of a German-Ethiopian research collaboration on Coccinia abyssinica, an endemic Ethiopian plant, this paper illustrates the tensions arising from differing sociotechnical imaginaries, research repertoires, and power relationships in decision making processes. As a corrective, this paper proposes the development and adoption of virtue-based ethics. This perspective emphasizes virtues and responsibilities for actors within the scientific and bioethical ecosystem, aiming to foster more equitable, culturally sensitive, and fair international research collaborations. By integrating postcolonial critiques of epistemology and STS insights into bioethics, this approach seeks to reconfigure bioethical governance to better navigate the complexities of global science and promote genuine epistemic inclusion.

Keywords: Postcolonial Bioethics, Science Governance, Governance of International Collaboration, Virtue Ethics, Sociotechnical Imaginaries, Coccinia abyssinica

Introduction

The global landscape of scientific research is increasingly characterized by international collaborations, promising accelerated discovery and shared benefits. However, these are often fraught with complexities, particularly when they bridge disparate geopolicial contexts, historical legacies, and epistemic traditions. The governance of such collaborations, especially in biotechnology and life sciences, presents a critical challenge: who governs which activities, by what standards,

and to what ends? Traditional models of science governance, heavily influenced by national legal frameworks and expert-driven ethical committees (such as ELSA/ELSI initiatives [Ethical, Legal and Social Applications / Implications]), have struggled to keep pace with the evolving nature of science, now more international, often privately funded, and deeply entangled with global power dynamics.

Bioethics, as a field and a practice, has emerged as a significant force in shaping the ethical contours of scientific research. It often operates with a cosmopolitan aspiration, striving for universal principles and the protection of "all humanity." Yet, this very aspiration, when uncritically applied, can become problematic. A singular, cosmopolitan subjectivity risks overlooking the persistent international division of scientific labor, the diverse values embedded in local knowledge systems, and the historical weight of colonial encounters that continue to shape scientific relationships between the Global North and Global South. The rhetoric of universalism can inadvertently mask underlying power asymmetries, leading to the imposition of externally defined research agendas, ethical norms, and benefit-distribution mechanisms.

This paper argues that the prevailing cosmopolitan approaches to bioethical governance are insufficient to address complexities inherent in postcolonial international scientific collaborations.[1] Such approaches often fail to adequately account for differing sociotechnical imaginaries, collectively held visions of desirable futures and the role of science and technology in achieving them (Jasanoff and Kim, 2015), that shape the expectations and priorities of collaborating partners. Furthermore, they may not fully recognize the epistemic injustices that arise when local knowledge and research priorities are marginalized in favor of dominant, often Western-centric[2], scientific paradigms. Drawing on insights from Science and Technology Studies (STS), postcolonial theory, and virtue ethics, this paper proposes a shift towards a *virtue-based* perspective for governing international scientific collaborations until sufficiently sensitive structures for internationalism have been robustly institutionalized[3]. This perspective seeks to move beyond abstract principles to cultivate specific virtues (such as epistemic humility, solidarity, and accountability) and define context-sensitive roles and responsibilities for all actors involved: researchers, institutions, funders, and bioethicists. To illustrate the limitations of current approaches and the potential of the proposed framework, this paper will analyze the case of a German-Ethiopian research collaboration focused on Coccinia abyssinica, a root plant endemic to Ethiopia with significant local nutritional and medicinal value. This case highlights the tensions between global scientific interest in the plant's bioactive compounds and local Ethiopian priorities for food security and traditional knowledge preservation.

The paper proceeds as follows: The next section reviews the state of the art in science governance, bioethics, cosmopolitanism, and postcolonial critiques, identifying the theoretical foundations and gaps this paper addresses. Then, the empirical case of the Coccinia abyssinica collaboration is presented, analyzing the interplay of institutional visions, research repertoires, and governance challenges. After that the proposed virtue-based perspective and its application is explained. Finally, concluding thoughts on the implications of this framework for fostering more just and equitable international scientific partnerships are discussed.

State of the art: navigating governance, cosmopolitanism, and postcolonial realities in science

The landscape of science governance, including bioethics, is evolving. Historically, science governance has been dominated by national regulatory bodies and professional self-regulation. The rise of "Big Science" and biotechnology has spurred the development of more formal ethical oversight mechanisms, exemplified by the ELSA (Ethical, Legal, and Social Aspects) and ELSI (Ethical, Legal, and Social Implications) programs. These initiatives, while valuable, have often been characterized by a preponderance of legal scholars and a focus on aligning scientific advancements with existing national or supranational governance structures. As Montgomery (2016) notes, bioethics has taken on various governance functions,

from responding to public scandals and scientific anxieties to attempting to resolve deep ethical disagreements in pluralistic societies. However, these traditional structures often struggle with the international, rapidly evolving, and increasingly privately funded nature of contemporary science. The co-productionist framework within STS, articulated by scholars like Jasanoff (2004), emphasizes that scientific knowledge and societal order are mutually constituted. Institutions, scientific practices, and ethical norms do not develop in a vacuum but are co-produced through ongoing interactions. This perspective challenges simplistic models where technology emerges first and regulation follows suit to regulate once and for all as in Felt's observation in Austria; "[p]olicy-makers appear to be quite attached to the idea that there is an ideal moment in the developmental trajectory when sociotechnical issues can be assessed once and for all; after that 'moment of engagement', research should be left on its own again." (Felt, 2015: 192) Instead, it highlights how visions, ideas, institutions, and ethical ideals dynamically shape scientific trajectories and the very phenomena that come to be governed. Bioethics itself, therefore, is not merely a reactive discipline but an active participant in this co-production, shaping research agendas, institutional practices, and public discourse (Hurlbut, 2020).

However, cosmopolitanism as an ideal in bioethics is open to critique. A significant undercurrent in bioethics discourse is cosmopolitanism, invigorating that ethical considerations should transcend national boundaries and apply to all humanity. This ideal posits a global moral community and advocates for universal principles to guide scientific conduct and ensure equitable benefit sharing. Proponents argue that since some major socio-scientific challenges (e.g., pandemics, climate change, genetic research) are global, their ethical governance must also be global (Hurlbut et al., 2018). Other scholars, like Broadbent (2019), advocate for a 'medical cosmopolitanism' rooted in liberal egalitarianism, suggesting that ethical stances should follow such principles to ensure fair representation and resource allocation, particularly in health. Ruger (2011) also explores a "shared health governance" model, seeking a middle way between nationalism and pure cosmopolitanism

by emphasizing differentiated responsibilities. But, the cosmopolitan ideal in bioethics also faces substantial critique. Sample (2024) identifies key challenges: dominant scientific ideals themselves may be problematic; global problem selection is not always governed by impartial reason; and cosmopolitanism itself, as an intellectual framework, might inadvertently hinder just and effective governance. The very notion of a unified 'humanity' can obscure deep-seated inequalities and power imbalances. As Pratt and De Vries (2023) argue, the lack of knowledge and perspectives from the Global South within mainstream bioethics constitutes a form of epistemic injustice. Whose 'cosmopolitan' values are being universalized? Often, these are values and priorities rooted in Western institutional and intellectual traditions, which may not align with or may even conflict with local realities and ethical frameworks in other parts of the world. The risk is that cosmopolitanism becomes a vehicle for imposing a singular vision, thereby marginalizing diverse ways of knowing and valuing.

Against this background, how to position postcolonial perspectives within science governance? Postcolonial theory highlights how colonial legacies continue to shape global knowledge production, resource distribution, and institutional relationships. In the context of bioethics and science governance, a postcolonial perspective urges a critical examination of how 'international standards' are formulated and applied, who benefits from them, and whose voices are excluded (TallBear, 2013). This creates a double task, a description of existing power structures, and the engagement with these structures in a normative fashion.[4] The concept of 'sociotechnical imaginaries' (Jasanoff and Kim, 2015: 6) is particularly salient here. These are "collectively held, institutionally stabilized, and publicly performed visions of desirable futures, animated by shared understandings of forms of social life and social order attainable through, and supportive of, advances in science and technology" (Jasanoff and Kim, 2015: 6). International collaborations often bring together actors with divergent sociotechnical imaginaries. Unacknowledged or unaddressed clashes in these imaginaries can lead to misunderstandings, conflicts, and ultimately,

unjust outcomes. Scholars like de Souza, Smith, and Taylor (2024) call for a decolonial approach to data law and governance, emphasizing the need to dismantle hegemonic structures and embrace 'pluriversality'; they also make the case for acknowledging multiple, equally valid knowledge systems. This resonates with calls for greater epistemic inclusion in bioethics (Schicktanz et al., 2012). The challenge is not merely to include more diverse voices in existing frameworks but to question the very foundations of those frameworks and to create space for genuinely different ways of conceptualizing ethical problems and solutions.

While bioethics aims for ethical oversight, its dominant cosmopolitan tendencies can thus clash with the realities of postcolonial power dynamics and diverse epistemic landscapes. STS provides the tools to analyze these dynamics, particularly through concepts like co-production and socio-technical imaginaries. The gap this paper seeks to address is the development of a more robust, ethically sensitive governance framework that takes these critiques seriously, transcending abstract universalism and moving towards a more grounded, relational, and just approach to international scientific collaboration (or at least towards compensation of the lack of thereof by individual virtues).

How to position virtue as a post-colonial tool in this entanglement? Building on the concepts of co-production and sociotechnical imaginaries, a virtue-guided bioethics can be understood as a dynamic field where normativity is not pre-given but produced in the interstitial spaces between diverse epistemic communities, governance regimes and geopolitical contexts, and ethical traditions. Virtues here operate as boundary objects, flexible enough to move across onto-epistemological boundaries, yet stable enough to sustain shared meaning (Star and Griesemer, 1989). This perspective enables us to view epistemic humility, solidarity, and care not as universal ideals imposed from above, but as relationally co-produced qualities emerging from concrete encounters between differently situated actors. A virtue-based governance of science thus becomes planetary rather than merely global, it

is attentive to the mutual constitution of values, technologies, and ecological entanglements.

A virtue-based ethics must, however, avoid reproducing the hierarchies it seeks to challenge. Responsibilities for reflexivity, humility, and justice are shared across all partners. In genuinely co-developed or South-initiated collaborations, researchers in the Global South may lead the ethical framing and agenda-setting, while partners from the North are equally obliged to reflect on their epistemic assumptions and value commitments. This relational symmetry resonates with situated ethics approaches in AI and digital governance, such as those that engage virtues in governance (Mager et al., 2025). Furthermore, it aligns with feminist and decolonial ethics that emphasize co-emergence rather than prescription, reflecting on the lack of representation of the majority of the world in ethical decision-making (Ricaurte, 2022) and advocating for a virtuous interpretation of meaning to overcome epistemic injustice (Fricker, 2007).

The empirical case of a German-Ethiopian collaboration on Coccinia abyssinica

The complexities and tensions inherent in international scientific collaborations, particularly those spanning the Global North and South, are illustrated by research initiatives concerning Coccinia abyssinica. This perennial climber, endemic to Ethiopia, holds significant local value while also attracting international scientific interest, creating a nexus where differing institutional visions, research repertoires, and governance paradigms intersect.

Coccinia abyssinica, known locally as 'Anchote,' is a staple food source and also a component of traditional medicine in Ethiopia. Its tuberous roots and leaves are consumed, especially during periods of food scarcity, providing essential carbohydrates and nutrients, thus contributing to regional food security (Asfaw et al., 2021). Traditional medicinal applications include treatments for ailments like diabetes, wounds, and infections, reflecting its deep integration into Ethiopian ethnomedicine (Getachew et al., 2022). Local communities have developed indigenous

knowledge regarding its cultivation, preparation, and application over generations. Ethiopian agricultural research institutions, such as the Ethiopian Biodiversity Institute, are interested in studying and enhancing the plant's utility for national benefit, focusing on traits like yield, nutritional content, and adaptability to diverse local agroecologies (Mijena et al., 2022). Their research often prioritizes outputs that are directly applicable by local farmers and contribute to national food security and sovereignty.

Simultaneously, Coccinia abyssinica has garnered attention from scientific communities in the Global North, including research groups in Germany, due to its rich profile of bioactive compounds, such as flavonoids and phenolic acids. These compounds exhibit antioxidant, antimicrobial, and antidiabetic properties, making the plant a promising candidate for pharmacological research and the development of nutraceuticals or novel therapeutics (Negasu et al., 2024). International research, exemplified by collaborations involving groups like Parmar et al. (2017), often focuses on isolating and characterizing these compounds, understanding their mechanisms of action, and exploring their potential for global health applications. This research trajectory aligns with global pharmaceutical interests and the pursuit of patentable innovations.

This dual interest causes conflicting sociotechnical imaginaries and evokes different research repertoires. For many Ethiopian stakeholders, including local communities, national researchers, and research institutions like the Institute of Biodiversity, the imagined future of Coccinia abyssinica is likely tied to enhanced local livelihoods, improved national food security, the preservation of biodiversity and cultural heritage, and the validation and integration of traditional knowledge. Correspondingly, their research repertoires, understood as the collections of tools, methods, and models deemed appropriate (Ankeny and Leonelli, 2016), emphasize agronomic studies, local adaptation trials, participatory breeding with farmers, and ethnobotanical documentation. Success in this context can be identified as increased local yields, improved community health, or enhanced resilience of local farming systems. Such a research repertoire focuses on

the plant's diverse traits and its application within Ethiopia's varied geographies (Mijena et al., 2022).

In collaboration projects, international partners may envision the future of Coccinia abyssinica research more aligned with global scientific advancement, like the discovery of novel pharmaceuticals and their contributions to a global knowledge economy rather than local uses. Their research repertoires, to reach their aims as I discussed above, would heavily feature "cutting-edge" genomics, metabolomics, high-throughput screening for bioactive compounds, and sophisticated biochemical analyses. Success criteria would likely include publications in high-impact international journals, the identification of novel compounds, an understanding of molecular pathways, and potentially, the development of patentable products. The emphasis on transferability of knowledge and translation-ability of research (Leonelli, 2015) often translates to producing knowledge into a form (such as genetic sequences or molecular structures) that is easily decontextualized and applied elsewhere, frequently aligning with the research infrastructure and priorities of the Global North. Parmar et al. (2017), for instance, highlight how underutilized the plant's potential is, framing it as a resource for global science and drug discovery; a perspective that, while not inherently negative, centers a particular kind of value extraction in the methodology of research.[5]

These differing imaginaries, while not always mutually exclusive, can lead to tensions in the design of experimental set up in the short run, and asymmetrical bioethical governance power in the long run. The methods involved, in turn co produce the governance aspects, and such aspects regulate the methods of research. For example, a focus on genomic sequencing, a standard tool in contemporary bioscience, might, if pursued in isolation, prioritize data extraction over local capacity building or over research questions directly relevant to Ethiopian farmers. As TallBear (2013) notes in the context of Native American DNA, genomics research can carry colonial undertones if not conducted in genuine partnership and with respect for local sovereignty. The governance of such collaborations often occurs within a fragmented landscape. While national legislation in Ethiopia may exist regarding biodiversity and

access to genetic resources, international collaborations also operate under the influence of alleged international standards of bioethics and research practice which are predominantly shaped by institutions and discourses in the Global North. This situation gives rise to several interconnected ethical dilemmas.

One primary concern revolves around benefit sharing and intellectual property. If novel compounds are identified and patented by international entities, the question of how Ethiopian communities, who have stewarded Coccinia abyssinica for generations, will benefit from such research materially and epistemically needs further reflection.. The rhetoric of sustainable harnessing for local livelihoods (Parmar et al., 2017) requires careful scrutiny: who defines sustainability, and how are livelihoods concretely improved?

Bioethics often functions as 'soft law,' guiding institutional practices even without explicit legal mandates. However, the institutions developing and promoting these bioethical norms are predominantly located in the Global North. This creates a power imbalance where ethical frameworks developed in one context are applied in another, without necessarily accounting for local ethical traditions, governance capacities or power asymmetries as a bioethical issue in its own right. The 'cosmopolitan ethos' often invoked can, in practice, mean adherence to norms set by the more powerful partners in the collaboration.

Finally, collaborations must navigate legal pluralism and infrastructural challenges. As Turner (2023) discusses in the context of the Moroccan argan oil supply chain, these partnerships often operate in a space where local customary practices, national laws, and transnational legal frameworks intersect. The infrastructures, both physical (labs, equipment) and epistemic (knowledge systems, expertise), are frequently unevenly distributed, further reinforcing power imbalances.

The case of Coccinia abyssinica research depicted here demonstrates that international scientific collaboration does not necessarily come with a neutral exchange of knowledge. Rather, different visions of the future, different ways of knowing, and different power positions collide.

Without a governance framework that is sensitive to these dynamics, even well-intentioned collaborations risk perpetuating historical inequities and failing to achieve genuinely mutual benefits. Existing cosmopolitan bioethics frameworks, while aspiring to universality, often lack the tools to adequately address these deeply contextual and power-laden issues.

Advancing a virtue-based role ethics for postcolonial bioethics

The preceding discussion of the empirical case of the Coccinia abyssinica research collaboration underscores the limitations of prevailing cosmopolitan bioethical governance models in the context of postcolonial international scientific partnerships. To foster more equitable sharing of results, just scientific and bioethical infrastructures, and epistemically inclusive collaborations, I advocate for a shift towards a *virtue-based understanding*. This way of approaching bioethics moves beyond abstract universal principles to focus on the cultivation of virtues and the delineation of context-sensitive responsibilities for all actors involved.

As demonstrated, dominant cosmopolitan approaches, while often well-intentioned, can inadvertently mask power asymmetries. The appeal to a universal "humanity" can obscure the very real power differentials between collaborating partners from the Global North and South, leading to the imposition of agendas and norms. They can also promote epistemic injustice by prioritizing certain (often Western) scientific ideals, methodologies, and forms of knowledge, thereby marginalizing or devaluing local knowledge systems, research priorities, and ethical perspectives (Pratt and De Vries, 2023). Furthermore, such models may lack contextual sensitivity, as universal principles can be too abstract to provide concrete guidance in navigating the unique ethical dilemmas and socio-cultural nuances of specific collaborations. Finally, an overemphasis on compliance with externally defined rules can fail to foster genuine partnership, stifling the development of trust, mutual respect, and shared ownership necessary for true collaboration. The challenge, as Sample (2024) articulates,

is that dominant scientific ideals themselves may be problematic, global problem selection is not value-neutral, and cosmopolitanism itself can be an intellectual obstacle. A new approach is needed that acknowledges these critiques and actively seeks to reconfigure the ethical landscape. Virtue ethics, with its emphasis on moral character and practical wisdom, offers a promising alternative. Instead of primarily asking "What rules should we follow?", it prompts the questions "What kind of person/institution should we be?" and "What actions will cultivate human flourishing in this context?". A virtue-based role ethics applies this lens to the specific roles actors play within the transepistemic arena (Knorr – Cetina, 1982). In this sense, it does not pass rules, govern objects and institutions but proposes agents and actors within these frameworks guiding ethical understanding of their own actions.

Several key virtues are particularly relevant to postcolonial bioethics. *Epistemic humility,* which can be built similarly to technologies of humility (Jasanoff, 2007), is crucial to foster, especially for researchers and institutions from the Global North; it involves recognizing the limits of one's own knowledge and the inherent value of diverse epistemic traditions, fostering an openness to learning from local partners and acknowledging that "cutting-edge" science does not hold a monopoly on truth or solutions. *Solidarity* entails a genuine commitment to the well-being and empowerment of collaborating communities and partners, moving beyond transactional relationships to foster a sense of shared purpose and mutual support, and actively working to address structural inequities. This extends the notion of 'medical cosmopolitanism' as a duty of service (Gantsho and Wareham, 2021) to a broader duty of solidarity in research. *Care and stewardship* apply to the responsible handling of knowledge, genetic resources, and the environment, as well as nurturing the relationships built through collaboration, emphasizing a role as stewards rather than extractors. *Pluriversality* means acknowledging and respecting multiple valid ways of knowing, being, and valuing, rather than assuming a single, universal framework for ethics or scientific validity (de Souza et al., 2024).

These virtues, in turn, inform specific roles and responsibilities for the various actors in the scientific process. Researchers from the Global North should actively seek to understand local contexts and priorities, practice epistemic humility, ensure fair authorship and data ownership, advocate for equitable benefit-sharing, and contribute to local capacity building. Researchers from the Global South have a crucial role in articulating local needs and local ethics, participating as equal partners in agenda-setting and research design, and acting as bridges between global science and local communities. Institutions, both from the North and South, should develop policies that promote ethical conduct based on these virtues, foster equitable partnerships, ensure robust mechanisms for community engagement and consent, and invest in building long-term, trust-based relationships. Funding agencies can contribute by designing funding calls that encourage genuine co-creation and prioritize local relevance, require ethical frameworks that go beyond mere compliance, and support capacity building and long-term engagement. Bioethicists, then, both from the Global North and the Global South can move beyond a purely regulatory role to act as facilitators of ethical dialogue, cultural translators, and advocates for justice and epistemic inclusion, helping to co-develop localized ethical guidelines sensitive to both international standards and local values, as suggested by de Campos-Rudinsky et al. (2024) regarding the principle of subsidiarity.

In the presented case of Coccinia abyssinica research, a virtue-based role ethics could significantly shift the operational dynamics. Instead of being primarily driven by international corporate interests in bioactive compounds, the research agenda would be co-created, giving equal weight to Ethiopian national and regional priorities for food security, traditional knowledge, and local biodiversity conservation. Epistemic humility from international partners could lead to valuing Ethiopian researchers' insights and local knowledge at expert and community levels on relevant traits and local cultivation practices. Methodologies would be chosen not just for their "cutting-edge" status but for their appropriateness to local contexts and their potential to build local capacity. In terms of governance,

bioethics oversight would not result in the imposition of external 'cosmopolitan' norms but foster a dialogue leading to mutually agreed-upon ethical guidelines, reflecting both international best practices and Ethiopian values and legal frameworks, with the virtue of care guiding the stewardship of genetic resources.

Implementing a virtue-based role ethics is not without its challenges. Virtues can be abstract, and their application requires practical wisdom and nuanced judgment. Furthermore, institutional support, through embedding these virtues within institutional policies, training programs, and reward structures, can provide a conducive environment. This framework does not advocate for abandoning all rules or principles but rather for supplementing and balancing them with a deeper focus on moral character and relational responsibilities. It aligns with calls for 'de-governance' (Montgomery, 2016) in appropriate situations to empower local actors and foster ethical autonomy, while simultaneously demanding greater responsibility and stewardship from those in positions of power, particularly in the Global North. It is about cultivating an ethical imagination (Castillo and Solbakk, 2017; Sample, 2022) that is attuned to the nuances of power, history, and cultural context.

Conclusion

The governance of international scientific collaborations, particularly those implicating postcolonial dynamics and diverse epistemic traditions, demands more than adherence to abstract, universalist ethical codes. The critique of unexamined cosmopolitanism in bioethics, coupled with insights co-production of knowledge and the significance of sociotechnical imaginaries, calls for a fundamental rethinking of how we approach ethical oversight in global science. The empirical case of the German-Ethiopian research on Coccinia abyssinica serves as an illustration of the

tensions that arise when differing institutional visions, research priorities, and power imbalances are not adequately addressed by prevailing governance models. This paper has argued for the adoption of a *virtue-based perspective* as a more ethically sensitive approach. By emphasizing the cultivation of virtues such as epistemic humility, solidarity, accountability, justice, and care and by defining context-sensitive roles and responsibilities for all actors, this approach seeks to move beyond mere compliance towards fostering genuine partnerships grounded in mutual respect and shared ethical commitment. Such an approach does not discard established principles entirely but enriches them by focusing on the character of the actors and the quality of the relationships. A virtue-based role ethics offers a promising direction for navigating these complexities, fostering a scientific culture where ethical responsibility is integral to the pursuit of knowledge, and where international collaborations genuinely contribute to the flourishing of all partners involved. The responsibility of the Global North, in particular, extends to contributing to a framework that supports justice in the making of bioethics infrastructure, ensuring that the capacity for robust, locally-grounded ethical deliberation is strengthened globally.

Acknowledgements

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Notes

1 Following Roy (2011) and Grant (2016) I use postcolonial to refer to a field of articulation, particularly with respect to bioethics.

2 While my primary framework for power asymmetry relies on the Global North–Global South relationship, I contend that distinguishing 'Western' ideals as a separate category is necessary. This is because epistemic practices and cultural ideals often evolve more slowly than the material power relations typically captured by the North–South distinction.

3 This conceptual framework will be further refined in the fourth section, which explicitly delineates the role of virtue ethics within postcolonial research.

4 Grant (2016) offers a detailed analysis of the tension between subject autonomy and bioethics as a tool for governing different subjectivities. While her work indicates a directional shift, she does not offer a specific normative conclusion. Her findings are significant because they highlight how political regulations often prioritize the 'image' of collaboration over its actual structural reality.

5 Note on methodology: The case of the German–Ethiopian collaboration on Coccinia abyssinica was selected as an illustrative example of asymmetric international collaboration. While the author was not a direct participant, the analysis draws exchanges with colleagues and literature research guided by Ethiopian biologists, to address this following the similar literature on Argan oil in Morocco to make it a paradigmatic case to reflect broader patterns.