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Vocational education in the academic drift or arrogance of academia in front of planetary crisis

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Abstract

The article questions the feasibility of the universalist discourse on academic drift in vocational education from the perspective of the Global North-South configuration. We will discuss examples from Finland, Bangladesh, and Kenya, aiming to understand the relationship between vocational and academic education within a planetary environmental framework. The conceptual frame is the planetary crisis understood as work-mediated disrupted metabolic relations between human and nonhuman nature; epistemic rift as an indicator of the crisis; and the responsibility of academia in addressing the crisis as both researcher and educator.

We start with mainstream interpretations of vocational and academic education in the Global North and South, then discuss a study of conceptions and expectations of university curricula in promoting sustainable livelihoods through vocational and adult education. We continue by reflecting on another study that questioned the possibility of connecting environmental care with social progress in adult, vocational, and higher education. Reflections lead us to conclude that knowledge production and education in academia remain disconnected from vocational education and work-life realities and ignore asymmetric power relations between the Global North and South. In tackling disrupted social metabolism and epistemic rift, we suspect the arrogance and ignorance of academia are more problematic than the academic drift in vocational education.

Keywords: academic drift, planetary crisis, social metabolism, epistemic rift, global north and south

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Introduction and background

The article is based on the presentation in the Academic Drift in Vocational Education of Vocational Education and Culture Research Network, aiming at widening and extending the perspective to planetary crises and colonial relations between the Global North and South. Despite individual initiatives (e.g., chapters in Heikkinen & Lassnigg, 2015; Heikkinen et al., 2017; Heikkinen, 2021), this has remained marginal in network discussions. The universalist discourse on the academic drift in vocational education – functioning through supranational organisations such as the European Union and the OECD – is dominated by scholars and policymakers of the Global North. Though academisation is an old phenomenon, this discourse can be interpreted as a continuation of academic and economic colonisation. Academic drift became a major issue in the political and research discourse of the North since the establishment of the non-university higher education sector – polytechnics, later called universities of applied sciences – during the 1960s (Silver & Brennan, 1988).

Along with the marketisation and globalisation of higher education, this discourse has also gained momentum in the Global South (e.g., Ishengoma, 2023). Academic drift in vocational education has become a prevalent issue in the Global North, reflecting wider concerns about the quality of expanding higher education and the decline of vocational qualifications, particularly in countries with a strong tradition of distinctive vocational education (e.g., Markowitch et al., 2022). The drift is typically analysed as an organisational or institutional struggle about status and resources in educational markets, or as a reaction to technological competition in industries, promoted by neoliberal Research–Development–Innovation (RDI) policies (Markowitch et al., 2022).

It seems that the universalist academic drift discourse considers academic and vocational education as given subsystems of nation-state societies (cf. Luhmann, 2012). Such an approach is highly problematic for analysing the Global South where over 80% of employment is in the informal economy (ILOSTAT, n.d.; Kiaga & Leung, 2020). More importantly, with its level of abstraction, the discourse does not recognise how much of a global village Earth is in the current environmental, economic, and social crises (e.g., Rockström et al., 2024). Therefore, we find it vital to recognise the historical and geopolitical diversity in the meanings and status of 'academic' and 'vocational' in education (despite the increasing impact of supranational policies), which connects to their contribution to local, national, and global divisions of work and industries. Since acknowledging the interconnectedness of human activities is key to addressing the crises, academia as a supranational research and education actor has an exceptional role in equipping citizens and workers with knowledge and skills to tackle these challenges.

According to our materialist assumption, in the era of the Anthropocene, the most urgent task is tackling the environmental crises, which require a radical planetary change in metabolic relations between human and nonhuman nature. Metabolism can shortly be defined as the flow of energy and materials in and between human and nonhuman entities and systems. Social metabolism refers to the flows through human societies that are embedded in the earth metabolism of the Planet Earth. Relations between entities and systems in metabolic processes can be called metabolic relations (e.g., González de Molina & Toledo, 2014.) While the academic drift discourse seems committed to given definitions of academic and vocational education as separate societal subsystems, we find it critical to perceive them as ontologically embedded in the Earth's metabolic system. This implies that relations between their functions and institutions should be analysed more broadly by conceiving their contribution to human and nonhuman work as mediators of social metabolism (cf. Hickel et al., 2022; Moore, 2017a). The global organisation – division and integration – of work, economic chains, and cycles are reflected in structures and hierarchies of education, and relations between vocational and academic education. Although we recognise that the Global North and South are not monoliths but consist of diverse internal contradictions, we focus on their economic and power inequalities in this article. Yet, many social metabolic processes connected to education have been experienced and are subject to internal political struggle in the North and South.

Our article is motivated by concern about the ignorance and arrogance of academia in facing the planetary crisis, despite official alignment with sustainable development and missions to mitigate environmental degradation. Since the planetary crisis is complex and multi-scalar, implications for the local and global organisation of work easily remain abstract when academic and vocational education are seen as distinct institutions. We find the 'epistemic rift' concept by Jason W. Moore (e.g., Moore, 2017b) more useful than academic drift for understanding how they shape the relations between academic and vocational education. The concept builds on his criticism towards the adoption of the geological concept of the Anthropocene and the dualism of social and earth metabolism in analysing the planetary crisis. In scientific and political discourses, the era has been characterised as the great acceleration (Steffen et al., 2015) or fossil capitalism (Malm, 2016), with reactions varying from ecomodernism or green growth to environmental justice, degrowth, posthumanism, and anarchism (IPBES, 2022; Kothari et al., 2019) Alternatively, Moore has formulated a 'world-ecological' framework of Capitalocene, where the transformation of capitalism is analysed through contradictions between human and nonhuman nature inside singular 'natural' metabolism. Accordingly, the epistemological separation of Nature, including unhumanised humans, and Society has emerged alongside the

material process of capital accumulation and exploitative class relations, appropriating the Cheaps of Nature: food, labour, energy, and raw materials.[1] Better than the Anthropocene, the Capitalocene captures what kind of human action creates rifts and conventions that lead to conceiving Nature as a 'gift shop of resources'. While the concept of the epistemic rift is critical for identifying the metabolic rift in the local and global organisation of work, we find it fruitful in understanding how academic and vocational education contribute to the Capitalocene.

Consequently, in problematising the discourse on academic drift in vocational education, we question the role of universities in articulating metabolic practices with workers, civil society, and vocational education, in confronting local stakeholders and governance, and national and supranational agencies. Does the academic drift discourse indicate the arrogance and ignorance of academia about ground realities in vocational education and work-life, and disinterest in analysing the diverse and contradictory interpretations of 'academic' and 'vocational' in education? Instead of certain individuals or groups, we refer to the structural quality of academia, indicating arrogance as 'an attitude of superiority manifested in an overbearing manner or presumptuous claims or assumptions' and ignorance perceived as a 'lack of knowledge, education, or awareness' (cf. Merriam Webster, n.d.). Though 'academia' is a contested concept, we understand it here as a community or environment – typically a university – committed to pursuing research and research-based education. Due to our backgrounds, we primarily think about social, political, and educational sciences that are directly in charge of interpreting academic and vocational education. Based on our studies and experiences we assume that our reflections can be extended to other disciplines, since academia controls knowledge and expertise in all areas of society, including vocational education.

To formulate and substantiate the above assumption and argument, we first briefly describe mainstream interpretations of vocational education and academic education in research, and political and practical discussions in the Global North and South. Second, we highlight findings from an empirical study that explored conceptions and expectations towards curriculum development in universities of the Global North and South in promoting sustainable livelihoods in vocational and adult education. Third, we widen reflections to perspectives of research on development, environment, and sustainability. They are backed by another study that questioned the possibility of connecting environmental care and social progress in adult, vocational, and higher education, and governance, especially from the perspective of the Global North-South divide. Since both studies were motivated by ethical concerns about the responsibility of universities in tackling the planetary crisis, in the concluding section of the article

we use joint discussions during the previous studies, we ask if a more critical issue than the academic drift in vocational education – as it is currently understood – might be the arrogance and self-inflicted ignorance of academia in front of the planetary crisis. This implies revisiting vocational and academic education and reaching out from their universalist institutional interpretations toward dialectical analysis of their functions in local and planetary politics and economy. Besides being good examples of the Global North-South configuration, the reason for taking Finland, Bangladesh, and Kenya as the focus is the authors' expertise and lived experiences from these contexts and sharing them in previous studies.

Mainstream interpretations of vocational (VET, TVET) and academic education

To reflect on the feasibility of the universalist discourse on academic drift in vocational education about our metabolism framework, it is vital to consider interpretations of vocational and academic education in diverse contexts. In the following, we characterise mainstream interpretations in the Global North (esp. Finland) and South (esp. Bangladesh and Kenya).

In the Global North, Vocational Education and Training (VET) is defined as occupation-specific education and training of workers at the secondary level. In the EU-Europe, VET is interpreted as learning that aims to acquire knowledge, know-how, information, values, skills, and competencies – either job-specific or transversal – required in specific occupations or more broadly in the labour market. It covers initial vocational education and training and continuing vocational education and training at secondary, post-secondary, and (vocational and professional) higher levels; it should play an increasing role in retraining and upskilling adults and take place in a broad range of settings and sectors. (Cedefop, n.d.) According to the OECD, VET includes education and training programmes designed for and typically leading to a particular job or a type of job. It should normally involve practical training as well as the learning of relevant theory. It is distinct from (academic) education, which is relevant to a wide range of jobs. In the United States, the term for vocational education and training is career and technical education (CTE). Education and training for some high-level professions such as medicine and law meet the definition but are not normally described as VET (OECD, n.d.).

In Finland, as in most of the Global North, interpretations and solutions of vocational and academic education have emerged gradually, connected to the building of nation-states and national industries. It has benefited from the heritage of a broad concept of 'autonomous' and distinctive vocationally oriented

education, whose development is intricately connected with the creating industries and political independence. During the 1960s–70s, vocational and academic education at the secondary level became an integral element of the policy of equal opportunity and open pathways. (e.g., Heikkinen et al., 1999). Furthermore, since the 1990s, vocational education has increasingly adjusted to the employment and social policies, and educational structures of the European Union and the OECD. On the other hand, academic and higher education, especially in universities of applied sciences, have become distinctive for their relevance to developing industrial and welfare clusters in society. More critically they can be considered as reproducers of elites for the capitalist world system, which is responsible for the accelerating planetary crisis (Ruuska, 2017). During the 1980s–2010s, enhancing programmes and policies to raise the status of work-related routes in education systems were prominent in the Global North. Recently, they have promoted lifelong – or rather continuous – learning and mobility, digitalisation and innovation, key competencies, and STEAM (science, technology, engineering, arts, and mathematics). This implies expanding higher education and increasing 'exposure to work-based learning' in vocational education. (EC, 2020, 2023; OECD, 2023). In the latest reform policies in Finland, academia and higher education are seen as knowledge hubs for industry, producing and reproducing experts and leaders for work-life, vocational and adult education and governance. Vocational education should get even closer to work-life, with an emphasis on workplace learning and training. However, vocational education is increasingly expected to function as social work and employment training in promoting the integration and employability of diverse groups of youth and adults with special needs. Since Finnish vocational and academic education reflects the global division of work and economy, their autonomy in addressing challenges of sustainable livelihoods is quite limited. This implies aiming at global competitiveness in the green transition, 'pure' energy and industry. Vocational and adult education institutions are aligned with the goals and pressure from industry and economic policies, which undermines their autonomy in challenging the hegemonic order and practices that reproduce environmental degradation.

In the Global South, the concept of Technical and Vocational Education and Training (TVET) was introduced by supranational development agencies, such as UNESCO, World Bank, and IMF, in the 1960s. In contrast to the North, during the 1980s–2000s the South experienced a shift in the policies of supranational development agencies, which moved their support from TVET to primary and higher education. (e.g., Maclean & Wilson, 2009). Since promoting TVET did not lead to economic growth or create jobs and enterprises, the focus moved to building human capacity in general and modernising governance and policy.

Currently, UNESCO defines TVET as education, training, and skills development relating to occupational fields, production, services, and livelihoods. It can take place at secondary, post-secondary, and tertiary levels and include work-based learning, continuing training, and professional development which may lead to qualifications. Learning to learn, developing literacy and numeracy, transversal skills, and citizenship skills should be integral components of TVET (UNESCO, n.d.). According to the World Bank (2018), TVET is an integrated educational approach that equips individuals for various roles in different sectors, aligning education with the practical requirements of industries and promoting employability. In the current development discourse, TVET has become increasingly important, due to globalisation, technological advancements, and environmental challenges. It is reshaping populations into skilled labour forces for the global market and advancing sustainable development. Current policies focus on employability, entrepreneurship, and industry-relevant lifelong learning to maintain competitiveness. Yet, ironically, despite recognising TVET's essential role in education and skill development, many governments and NGOs have not fully incorporated it into their strategic plans and actions. Even when countries have aligned their strategic development vision to an expanded TVET to generate a workforce needed (Ngure, 2022; Nyamai, 2022), high-achieving students still prefer universities and teaching staff to be employed in universities.

Out of Bangladesh's population, merely 5% of workers have received vocational education, and only 1% of the population has had technical or vocational training (BANBEIS, 2021), which is preventing them from securing quality jobs and causing the country to fall behind in literacy, education, and skills. Though the government recognises the potential of TVET for economic growth by creating a skilled workforce, annually 2–2.5 million mostly unskilled youth enter the job market, where there is a notable shift from agriculture towards export-oriented manufacturing and services. Therefore, the government policy promotes overseas employment due to substantial unemployment and underemployment and has an ambitious plan to reach middle-income status by 2024 (Khan, 2019). Despite attempts and efforts made through initiatives and policies, the status and clarity of TVET remain ambiguous and unclear, and it hasn't been highlighted much in discussions and planning. As a result, TVET is not recognised within the overall education system. Even within academic circles, there is a notable deficiency in promoting TVET as a vital means of empowering the workforce. Academia has failed on two fronts: in neglecting to promote careers within TVET for its members, and in not advocating for its significance in policy making.

In Kenya, 58% of the population is below the age of 24, with a 67% unemployment rate for those under 35 years (Ngure, 2022; UNDP, 2013). In

government policy, TVET has been seen as a good route to make the youth employable and to achieve the vision of being an industrialising middle-income country, providing a good quality of life to all its citizens (Government of Kenya, 2008). Yet there is no defined practical route to achieving the vision, thus relegating it to a mere slogan. The lack is exemplified by the fact that despite the interest and financial support of the government, TVET has met a lukewarm reception from the population that still prefers university degrees and leaves TVET certificates for poor-performing youth (Ngure, 2022). This emanates from the reality that a degree from a university increases one's chances of getting a higher-paying white-collar job. Academia and higher education have used curricula as an instrument for new skills, to enhance the economy and reduce unemployment, based on development policies in line with the World Bank concept of TVET. However, it has retained the colonial legacy of the academic route in the education system and failed to connect different actors in sustainable consumption locally and globally.

The academic drift discourse is presented as interconnecting the Global North and South with the same goals. Yet, the prevailing interpretations of vocational and academic education are deeply rooted in historical, political, cultural, and economic contexts, evolving over centuries to cater to diverse needs and interests. What is common to interpretations of VET, is their insistence on 'work-life realities' or 'industrial relevance', meaning the needs of companies and employers in competition on global markets, to which the goals and contents should adjust. In the Global South, the demand by supranational agencies that TVET should directly satisfy the needs of the labour market, instead of challenging the hegemony of the academic route in educational systems, is a prescription rather than preparing the field for TVET. The strategies have failed to undermine the long-standing dominance of the academic pathway within educational systems, a dominance deeply entrenched due to historical colonial legacies. The Global North has traditionally incorporated VET into their education systems, considering it vital to provide the skills and knowledge required for specific occupations, trades, or industries. The South has not received the same priority in their academic discourse. The Global South countries' strategic plans (e.g., Plans of Governments of Kenya, Tanzania, and Uganda; Khan, 2019) aim to make them globally competitive by adopting TVET to prepare their workforce. To respond to current global challenges including climate change, strategies include statements about promoting lifelong learning, digitalisation, and innovation. Still, according to dominant development discourse, TVET is hardly the vehicle on which the Global South ascends to a world platform that the North occupies.

The universalist academic drift discourse ignores the contradictions of the mainstream policies demanding academic and vocational education to enhance economic growth in the Global North and South, despite huge differences in their industrial and employment profiles. It remains silent how responding to given 'work-life realities' leads to disturbing the earth's metabolism in a complex combination of local and planetary events (see Rockström et al., 2024). Consequently, the mainstream interpretations of vocational and academic education adopted in the academic drift discourse show ignorance about the intertwinement of the global division of work with planetary boundaries and local conditions of sustainable livelihoods.

Findings from 'Mediators'-study

In this section, we discuss views in the Global North and South about relations between vocational and academic education, and whether they recognise academic drift in vocational education. Our notions build on a small-scale empirical study, which was conducted between Tampere University, Kisii University, Mzumbe University, Kyambogo University, Baoji University of Arts and Science, and South China Normal University (Heikkinen et al., 2022). The study implemented surveys and interviews among university staff and students; staff, and students in vocational and adult education; industry or employer and employee organisations; and governance. Respondents were asked about their conceptions and expectations towards university curricula and curriculum development in promoting sustainable livelihoods through vocational and adult education.

In the study, vocational education was understood as activities and practices contributing to prevailing forms of social metabolism, mediated by human and nonhuman labour, formally or informally delegated to institutions and practitioners in public and private sectors of societies. A loose pre-understanding was that vocational education aims to enable student-learners to participate in work-life. Governance of vocational education was considered guidance by policies, practices, and institutions, executed by formally or informally authorised policymakers, administrators, leaders, and planners (designers) in public and private sectors of society, materialising in the interaction between the governors and governed. Universities and higher education institutions were understood as formally authorised but autonomous institutions, responsible for research-based knowledge-creation and education of professionals and experts, with societal interaction and impact. Their mission of training people who drive production and consumption in society materialises in strategies and practices in the development and design of degree programmes and curricula – aims,

contents, and implementation – in the engagement of various categories of staff, students, and non-university actors in both public and private sectors.

Respondents from all contexts found horizontal and vertical siloing of industry, education, and governance and tensions between local, national, and global contexts to constitute the biggest obstacles to collaboration between actors, especially in developing university curricula and programmes related to vocational education. However, the rift between academic actors from communities, work-life, and vocational and adult education institutions and actors rather than the academisation of vocational education was considered a major problem. Instead of complaints about academisation, they requested more collaboration in research and development. Yet, it was controversial whether the expectations referred to promoting a democratic work-life or competitiveness in the local and global economy. Furthermore, findings indicate that the action space of all kinds of educational institutions is constrained by the financial steering of governments and competitive and short-term project funding, which decreases autonomy and resources for collaboration. As expected, the findings also show the persistence of stereotypical views about the opposition between theory and practice, both in and outside academia.

To illustrate the need for a contextual approach to promoting sustainable livelihoods, we emphasise findings that were more typical in the Global North (Finland) and South (Kenya). In Finland, the respondents showed the most holistic approach to developing mediating expertise for sustainable livelihoods. They emphasised perspectives across industrial sectors, production chains, and cycles and stages of education. Yet, they mostly referred to vocational education and work-life institutions, instead of universities, except for some notions about universities of applied sciences. Although many recognised that tackling unsustainability requires long-term action and collaboration, there were minor references to wider conceptual frameworks and historical-causal links between global economic and environmental interconnections. In Kenya, it was most striking that craft people feel they are not recognised and included in curriculum development processes in higher education. Still, they would have experiential knowledge about local livelihoods and could communicate the needs of local industries and communities to universities. The respondents emphasised the necessity to engage workers, employees, craft, and local communities in collaboration with universities and higher education in curriculum development. In promoting expertise for sustainable livelihoods, they found it important to focus on self-employment and a sectoral approach.

Despite political, economic, and social diversity, the transnationally and nationally dominating eco-modernist policies and discourses of vocational education and sustainable development were visible in the responses from all

contexts. The aims of continuing economic growth and competition by developing large-scale high-technological solutions in production, distribution, and consumption, were commonly taken for granted or problematised only indirectly, yet hinting at environmental justice and degrowth ideas. Many respondents followed dominant discourses, where vocational education would promote the global transformation to a 'green economy' by providing green skills and competencies. Yet, the universalism of eco-modernist solutions is confronted by the diversity of political, economic, and social traditions and geo-ecological realities. The dominant solutions are developed in individualist, highly regulated and monetised, and high socio-metabolic countries of the Global North, such as Finland. They can be implemented in the lavish economies of the Global North, but hardly in the subsumed economies of the South.

The study's main finding was that combatting the environmental, social, and political crises requires new mediating expertise and knowledge, which enables interaction between vocational and adult education, academia, and local livelihoods. New expertise should recognise existing qualification frameworks, occupational structures, curriculum, and programme structures, and integrate the knowledge of and competencies for the world of vocational and adult education, and their local, national, and planetary interdependencies and governance. Yet, being dominant in the education of experts in governance, work-life, civil society, and education, universities were seen in a key position. While the current detached methodological and ethical approaches of academia were criticised, co-creative, experimental, and self-critical development and implementation of curricula were expected between universities, vocational and adult education, work life, and communities. Collaboration across the Global North and South was considered necessary since sustainable livelihoods cannot build on the global scaling of the exploitative solutions from the North.

As an interim conclusion, we suggest that the notions about the persistent institutional and practical siloing reflect the epistemic rift between academia, vocational and adult education, work life, and policymakers. For us, this indicates the structural arrogance of academia in front of its responsibility to address the planetary crisis. The detachment of theoretical and methodological frameworks in academia hinders analysing the relations between vocational education, the economy, and the environment. Most respondents in our study considered academia ignorant about the ground realities of vocational education and work-life. Yet, they expected academia, due to its autonomy, to be able to conduct self-critical evaluation and development of its programmes with non-university actors to address the planetary crisis.

Reflections on findings from a wider perspective

There is wide research discussion around academic capitalism as a global phenomenon, and vocational education and training (systems) as enacting varieties of capitalist (national) economies (e.g., Busemeyer & Trampusch, 2011; Jessop, 2017). However, it tends to disconnect academia and vocational education and ignore their entwined function in disrupting planetary metabolic relations. Therefore, in our attempt to find reasons for previous findings, we reflect them from a wider perspective of development, environmental, and sustainability research. It is backed by a study by scholars from the Universities of Tampere and Jyväskylä, Stamford and Islamic Universities of Bangladesh, Duhok University, Finnish Association of Education of Adults, University of Wuppertal, Austria Institute of Advanced Studies in Vienna, and Tallinn University. The study questioned the possibility of connecting the idea of social progress with environmental care, building on previous research by the project team. It focused on the contradictions of sustainable development in adult, vocational, and higher education, and their link to governance, especially from the perspective of the Global North-South configuration (Heikkinen & Jinia, 2023). These reflections are concretised by portraits from the Finnish forest industry, Bangladeshi tea and garment industry, and Kenyan tea industry as exemplary for the global division of work and industries, and planetary social metabolism.

Based on reviews on development policies, sustainable development agendas, and environmental degradation, the 'Environmental Care and Social Progress'-study showed how the influential development agencies (UN, World Bank, EU, OECD, development aid organisations) classify countries and regions as 'developing' according to income levels and fund aid projects according to standards of the Global North, applying models of linear economic growth (Heikkinen et al., 2022; Heikkinen & Jinia, 2023). Thus, the Global South is considered to need and receive aid from the North, though it dominates global production, commodity, and financial chains. Despite the North being in historical debt for appropriating the South and the root cause of the planetary crisis, the dominant concepts of development remain blind to 'maldevelopment' in the North (Hickel et al., 2022; Kothari et al., 2019).

Furthermore, the study showed the failure of UN sustainable development goals (SDGs) to downscale the aggregate level targets and measures to the diversity of political, economic, and social contexts, which indicates a gap between conceptions about SDGs at ground realities and levels of supranational policymaking (Collste et al., 2021; Hickel, 2019; Martens, 2019; van Vuuren, 2022). While the focus on the growth in GDP contradicts environmental and social goals, the disconnection of goals and disregard for power relations, governance, and institutions make their implementation problematic. Research also shows

that GDP growth has led to more emissions and using natural resources (Collste et al., 2021; Hickel, 2019; Hickel et al., 2022). Yet, to receive support from supranational agencies, the countries in the Global South must commit to implementing the SDGs. Despite foreign aid, consultation, and reform initiatives, the target countries seem never to emerge from the eternal prison of 'underachievement' due to their weak, contextless, and corrupt governance (Asaduzzaman et al., 2016; Farazmand, 2013; Haque, 1996).

Our study recognised recommendations by critical researchers to holistic and contextualised, bottom-up approaches to environmental crises and vesting power to local communities. Yet their concepts and visions tend to remain abstract and hesitating how to proceed (Laine et al., 2023; Martens, 2019). We agreed with the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services that sustainability and development research ignores connections between SDGs, governance, and economy with ethics, values, and virtues (IPBES, 2022). In the 'great acceleration' (cf. Steffen et al., 2015), work, education, and governance have become standardised and technologised, losing their roots in local livelihoods and ethics. Though the intertwinement of 'nature work' with 'human work' has increasingly gained attention, ethical interpretations of the linkage vary from the ecomodernist instrumental view of nature as 'services/capital', to degrowth and earth stewardship, and to prioritising the intrinsic value of nature over humans (IPBES, 2022; Kothari et al., 2019). However, due to the responsibility for educating leaders, professionals, and managers in work life, educational institutions, and governance our study considered that most critical are the values, virtues, and wisdom adopted by academia. We requested relational ethics of care with concrete dialectical wisdom about relations between local and planetary. This implies recognising links between linguistic, socio-cultural, and biodiversity, and the diverse ways to organise human and nonhuman work, that is, social metabolism, on the planet (Heikkinen et al., 2023).

The 'Mediators'-study concluded that promoting sustainable livelihoods through vocational and academic education across localities requires concrete research-based collaboration, which focuses on realities of work-life and industries, and interconnections between global production and commodity chains and their local manifestations (Heikkinen et al., 2022). The Finnish forest industry, the Bangladeshi tea and garment industry, and the Kenyan tea industry seem good candidates for this purpose. For example, the packaging products from Finland are exported directly or indirectly to cheap export countries, such as Bangladesh and Kenya. From there low-cost products, such as garments and tea, are exported in packages back to high-income countries, such as Finland.

The Finnish territory is mostly covered by forest; thus, the forest industry has been critical for the formation of the Finnish nation-state society and national economy, linked to its history of being part of Sweden and the Russian Empire until 1917 (Heikkinen et al., 1999; Kuisma, 1993). Since early on, it has been intricately linked to global trade, benefiting from largely self-sustaining cheap labour, cheap (water and wood) energy, and raw materials. However, since the early 20th century, land and forest ownership have been dispersed, balancing capital accumulation. This was reinforced through universal voting rights and parliamentary democracy at state and municipal levels which enabled civic control and involvement in economic policy. Since the 1960s, with rapid 'modernisation', closures of small farms, and urbanisation Finland built a welfare state on the equality of opportunity principle. It integrated into the economic and political framework of the Global North, through investments in technologically advanced exports and profiting from the import of cheap fossil energy and consumer goods (see Koivunen et al., 2021). In education for the forest and wood processing industry, the focus shifted from academic or higher vocational education of foresters, engineers, and supervisors, and experiential learning of workers, to qualifying factory workers and owners and workers in forestry (Heikkinen et al., 2001). The Finnish forest industry currently operates at the forefront of the EU's 'green deal' policy (Finnish Forest Industry, 2022; see Heikkinen et al., 2022). This means striving alongside the whole technology industrial sector ('pure' energy and metal production) to be winners in the global 'green transition'. It follows the eco-modernist agenda, exploiting 'national' advantages, such as political and social stability, in the EU and the global markets. However, the position builds on the hegemony of the Global North due to unequal relations in production, industry, financing, and technology.

In education policy, academic and vocational education continue subsumption to economic growth and competitiveness of national industries, as prerequisites for maintaining a welfare society (Heikkinen et al., 1999; Koivunen et al., 2021). Thus, academia and higher education are developed as the RDI-cluster and vocational education as a servant in the competition for industrial and economic leadership in global green transition. However, forests as planetary commons are critical carbon sinks and maintainers of biodiversity, and the replacement of fossil fuel with wood and peat is problematic due to emissions and land use, thus academic and vocational education should study together how to tackle the challenges. Despite the rhetoric of human rights and corporate responsibility, there is silence about the inequalities of global production and commodity chains in the forest industry. Consequently, its success and educational policy supporting it can be blamed on the lack of good governance

and being exemplary of nationalist closure and hypocrisy without genuine planetary solidarity.

The garment industry makes up 80% of Bangladesh's exports, but only a few of its mostly female workers have any vocational training. Another major export sector is the tea industry, which dates to colonial times. Both industries face criticism for labour exploitation, including low wages, poor working conditions, and environmental degradation. Their struggle to recruit skilled labour despite their economic significance can be attributed to the educational context that affects both. Bangladesh lacks a unified education policy since post-independence, leading to disparities in education quality and access. Historical factors, including colonial rule, traditional and cultural influences, and ongoing political instability, contribute to this absence. This legacy perpetuates issues like hegemony, patronage, corruption, and brain drain, hindering governance and exacerbating educational challenges. Consequently, vocational education lacks clear strategy and recognition in academic discourse. The massive garment industry fuels the planetary crisis through excessive water use, chemical pollution, and labour exploitation, and the tea industry contributes to deforestation, biodiversity loss, and pesticide runoff, undermining global sustainability efforts. While Western buyers prioritise cost over labour rights and environmental concerns, industry proprietors holding political positions perpetuate exploitation despite global demand for inexpensive products. Meanwhile, academics show reluctance to engage with vocational education due to their perceived inferior status in society. The epistemic rift is evident in the intertwined vocational education and industrial landscapes, shaped by historical legacies and contemporary challenges, demanding systemic change and heightened academic involvement.

In Kenya, tea planting was introduced by the British in 1903, and most plantations continue to be owned by multinational tea companies. The Tea Board of Kenya estimates that tea accounts for about 70% of export earnings and employs many mostly unskilled women. The global tea industry has always perpetrated a dark legacy replete with forced labour and slavery. Currently, most low-level workers, who make up the majority, are trapped in perpetual poverty and abuse among other human rights violations (International Labor Rights Forum, 2021). The BBC uncovered current evidence of massive sexual exploitation in tea plantations (Africa Eye and Panorama teams, 2023). The tea sector has shown an abnormal inability and resistance to change despite membership in international trade organisations such as Fairtrade International which tries to address the poor wages for workers. Local governments, private sector actors, and civil society have also made efforts to improve the conditions of workers in the sector. The withdrawal of big multinationals, such as Unilever,

only compounds this inability as they are focused on making a profit before investing in workers' welfare. Additionally, global warming threatens the monoculture tea industry with increasing droughts and poor yields, endangering livelihoods.

While the tea industry needs workers, ready to work when they come from training, it also needs workers who can think critically, challenge hegemonic forces, and make up an empowered workforce to achieve economic visions sustainably. This would help the country be less dependent on foreign aid to meet obligations to its citizenry and chart its future. However, its economic development and stability depend on market forces and are vulnerable to trends in the Global North. Multinational businesses control the supply chain and most of their policies are designed to maintain the top status in the hierarchy. The government that depends on multinationals for technical and financial support does not have the muscle to design visions to improve the lives of the citizens if these upset their status. When new policies and practices in academic and vocational education are tied to 'aid' and economic support from the Global North, the South must accept them. This results in graduates from vocational education getting jobs in multinational corporations while not equipped with the capacity to think critically and challenge practices that maintain the power relations with the North. These include keeping low-paid workers producing tea that enriches multinationals and keeping the workers in global headquarters relatively highly paid.

The request for multi-scalar, planetary governance to care for planetary commons against the disruption of the biophysical Earth System is widening (e.g., Bennett & Reyers, 2022; Rockström et al., 2024). However, the high-technological and costly solutions from the Global North are not scalable and feasible for the South. In addressing the planetary crisis, the North should radically revise social metabolism and use less energy and material flows in production and consumption. The nonrecognition of the interconnectedness of the capitalist world system perpetuates the planetary crisis and poor governance equally in the North and South. Universities and academia that could intervene and engage in the crisis seem unwilling or incapable due to historical and structural constraints, and the rest of the population lacks the power and resources to do so. Yet, the extraordinary economic growth and technologised way of life in the Global North are the results of the world-ecological history of capitalism, building on the exploitation of the 'Cheaps of Nature', especially fossil fuels. To combat the Capitalocene and reduce fossil fuels would require very alternative ways of organising social metabolism and work in the Global North-South configuration. By shaping work, economy and governance,

academic and vocational education are critical for promoting work- and economy-related planetary ethics, values, and virtues.

Arrogance and self-inflicted ignorance of the academia

Our previous studies shared an ethical concern about the potential and responsibility of universities to connect academic and vocational education in confronting planetary crises. We showed how this is hindered by the siloing of industries, governance, and education locally and globally, and avoiding addressing historical epistemological, ontological, and ethical hierarchies between the Global North and South. The lack of a planetary approach seems to lead to the epistemic rift – the detachment of knowledge creation and educational practices between vocational and academic education and disregard of inequalities in the division of work, industries, and governance – as the root cause of the planetary crisis. To concretise our statement of discourse on the academic drift in vocational education as manifesting arrogance and self-inflected ignorance of academia in front of the planetary crisis, we draw on discussions among participants of the studies mentioned above, concerning their experiences about academia and its relations to vocational education. The participants came from thirteen universities in ten countries, most seniors with an extensive background in collaboration with researchers and non-university actors in and across the Global North and South (for details, see Heikkinen et al., 2022; Heikkinen & Jinia, 2023). Based on our notes and joint memorising, we raise issues that emerge most frequently and intensely in face-to-face and online meetings, email correspondence, and virtual platforms. However, our focus remains on Finland, Bangladesh, and Kenya.

In Finland, the rhetoric of the relevance of research and collaboration with vocational education and work life is common in academia. However, this mainly happens in vocational teacher education units of universities of applied sciences and focuses on improving their pedagogies and practices. One cause of ignorance and arrogance is that research and collaboration depend on individual expertise and experience, with narrow methodological approaches, and the lack of cooperation between institutions, which seems to lead to the siloing of actors. This hinders the cumulation of vocational education research that connects to concrete realities and builds on a wider critical-political framework. The staff seems to consider structures of funding and governance, conditioned by global academic capitalism, to force them to feed performance indicators, compete for project funding, and publish in ranked international (i.e., English language) journals. Yet, this can be interpreted as an escape into exclusive discourse about their theoretical economic, and political autonomy, which should not be spoiled

or corrupted by collaboration with non-university actors, especially work-life and vocational education. With an academic background, few risk their careers and reputations with unrewarding and laborious familiarisation with such complex fields. This leads to a vicious circle, where the lack of theoretical and empirical research implies their absence from curricula and supervision and reproduces ignorance and arrogance among future academic generations. Although Finnish universities emphasise their progressive role in solving wicked problems of the world, there is hardly any criticism about being part of the economic, industrial, and educational hegemony of the Global North, which came out in our example of the Finnish forest industry. In institutional practices, the emphasis is on pooling excellence from the Global South, and collaboration with institutes and individuals with similar backgrounds and profiles as in the North. The attitudes and behaviour towards different conceptual and cultural backgrounds and academic practices remain rather exclusive and even racist. Such adoption of double standards to planetary crisis and inequalities as arrogance, and avoidance of self-criticism as self-inflicted ignorance.

In Bangladesh, despite government rhetoric, the significance of vocational education has not been given due priority in discussions within the education and industry sectors. vocational education struggles to attract high-achieving students due to societal biases favouring traditional academics, leading to stigma and misconceptions about vocational education. The lack of prestige and recognition for successful graduates further deter students and reinforces the belief in the inferiority of vocational education. Academics are hesitant to pursue careers or research in vocational education due to the perception it has a lower status in society. The influence of colonialism, and longstanding traditions, affect decisions individuals make regarding their professions or research areas, leading academics to prefer fields seen as more prestigious. There is a gap between academia and industry while universities prioritise financial gains for research endeavours, overlooking active involvement from work-life. Their unwillingness and ignorance to promote vocational education through teaching or research, its diminished status is hindering collaboration in addressing environmental and social crises, exemplary in the garment and tea industries.

In Kenya, academia is involved in a delicate balancing act. Through its programs, it should guide the country by interpreting and supporting global trends and scenes while maintaining cultural values that have held the local communities together. Yet, vocational education does not have strong links to universities, though universities are training their staff. The disconnect between academic and vocational education results in university-trained graduates not being equipped to teach in vocational education, and vocational education graduates being retrained before they are 'job ready.' Additionally, graduates are

not equipped to challenge the hegemonic structures in the community. These include both local elites from the university, superior to them and not ready to relinquish their position because of Vision 2030, and the Global North players who keep them as low-paid supply workers in industries. Academia is expected to lead the engagement with the global community while helping the citizenry keep their values and culture, but there is a gap between it and the population. The question is, who is included and how in a way that does not upset the existing balance? Vocational education could bridge the gap, considered an arm of academia that is practical and closer to the community, but cannot because being hardly ever included in processes such as developing its curriculum, done by academia. Players in academia are often elites who occupy top positions in social hierarchies and do not welcome opening their place in society by developing curricula and training in a way that empowers vocational education graduates to push back against enslaving labour policies and practices. Our example from the tea industry indicates that academia seems not to have the muscles to resist policies and practices received from the multinationals, since their curricula are developed on blueprints from supranational agencies, such as the World Bank. It seems to stubbornly hold onto abstractions given from them at the expense of programs that acknowledge and include local epistemologies, enabling communities to address the planetary crisis.

Based on our experiences, academia in the Global North and South seems hesitant to recognise their impact on vocational education in the planetary organisation of human and nonhuman work. Their role as reproducers of the capitalogenic economic order remains hidden in the arrogant rhetoric of being an autonomous science hub and in the collective apology about the necessity to adapt to financial and career norms, rules, and demands of global academic capitalism. As we highlight elsewhere, this connects to the dominant methodological and educational principles in academia, which prioritise abstract theorisation and empirical measuring, ideally with standardised tools in a controlled, artificial laboratory-like setting (e.g., Heikkinen & Jinia, 2023). While seemingly effective for managing and appropriating the planet, this increasingly disconnects from material interaction and concrete and experiential knowledge about metabolic relations between human and nonhuman nature. Paradoxically, endless abstraction and standardisation miss contextual and specific realities critical for understanding and coping with the multi-scalar, interdependent social and biophysical processes. Despite emphasising the distinctiveness of 'academic' knowledge and methodological skills, they seem just as instrumental as 'vocational' education in sustaining colonial economic and political power relations underlying planetary environmental crises. Consequently, the popular 'academic drift' discourse in the Global North seems rather obscure the widening

of the epistemic rift by conceptually expanding the working class through instrumentalised 'academic' skills, knowledge, and competencies, thus worsening the disruption of metabolic relations between human and nonhuman nature.

Since all forms and stages of education contribute to the global organisation of work, economic chains, and cycles, sustaining the disturbed social metabolism and Earth System, their response to planetary crises should be holistic. However, due to the complexity of the crises and lack of democratic planetary governance, our studies suggested that changes must start by recognising the current diversity – and hierarchies – of actors, institutions, and contexts. Instead of focusing on 'academic drift in vocational education', bridging the 'epistemic rift' between academic and vocational education could start by recognising their dialectic relationship and functions in planetary metabolism. Yet, as a supranational research and education actor, academia has a distinctive dialectical position. It can either remain blind and irresponsible about its role in producing and reproducing social metabolism (organising – dividing and integrating human and nonhuman work), arrogant and ignorant towards vocational education, or it can build on its autonomy and mobilise (self)critical collaboration with other actors to find alternatives to the fatal economist growth doctrine. According to the 'Mediators'-study, academics could facilitate bridging the epistemic rift by confronting conceptions, experiences, and expectations between actors in work, education, and governance, locally, nationally, and across localities. Vocational education could provide indispensable concrete and experiential knowledge about the realities of work and people's livelihoods in metabolic relations in local industries and communities but may not grasp the extent of their impact on the planetary condition. Collaborative research and teaching methodologies between university and non-university actors, co-research with self-critical analysis of the status quo, require mutual learning and knowledge-creation with concrete meaning. It could be promoted through dialogues and encounters across linguistic and socio-cultural diversity in work, governance, and education (Heikkinen et al., 2022; Heikkinen & Jinia, 2023).

Surpassing the 'epistemic rift' requires bridging actors and institutions across contexts and localities, as concluded in the 'Environmental Care and Social Progress'-study. Since the dominant discourses and institutional definitions of 'academic' and 'vocational' are shaped by epistemic, economic, and political disparities in education and work, influenced by supranational financial institutions, donor agencies, and consultants, it is vital to examine how global dynamics and local realities intersect. The embedding of colonial culture, concepts, and education within the frameworks of universities in the Global North and South force them to align policies and practices with the dominant

global actors, marginalising local voices and priorities. Consequently, academics, development activists, and policymakers adhere to the hegemonic recommendations of the North overlooking their ground realities and contexts. They prioritise theories, methodologies, and educational paradigms originating in Northern contexts. Therefore, academics in the Global North and South should decolonise their thinking and facilitate contextualised, self-critical analysis of 'academic' and 'vocational' in education, and their dominant discourses and institutional definitions.

We are aware that our article is limited and preliminary in confronting epistemic rift and planetary crises in academia. However, we believe that actors with such an academic and ethical mission as the VET and Culture Research Network could support more concrete and detailed action in the future.

Endnote

[1] Using a capital letter means that cheapness is a monetary interpretation of these entities, prevalent in the dominant capitalogenic epistemology and material practices.

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