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Building agroecological traction: Engaging discourse, the imaginary, and critical praxis for food system transformation

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Shifting the current food system toward a more sustainable and equitable model requires an alternative imaginary. Agroecology represents such an approach, but despite the construct's promise, policy and academic communities alike continue to maintain the current system. We contend that shifting away from the existing, dominant food system requires researchers to engage stakeholders with discourses that give meaning to an agroecological imaginary. We provide a methodological case study for how interested analysts may build agroecological traction through critical praxis. We advance our argument theoretically, methodologically, and empirically. Theoretically, we draw on scholarship arguing that food system transformation requires a discursive imaginary. Methodologically, we outline how Critical Discourse Analysis (CDA) as both a theoretical and methodological framework, illuminates the discursive power that shapes the future of food. We first used CDA to analyze United States Agency for International Development (USAID) policy, and subsequently presented those results to focus groups comprised of USAID-funded university-based research-practitioners. Empirically, we suggest that our methodology represents one possible mechanism or strategy to encourage the dialogue necessary to secure a new critical food system praxis. We conclude by offering recommendations for future inquiry.

KEYWORDS

agroecology, critical discourse analysis, critical praxis, social imaginary, policy

Introduction

For decades, the global food system has favored an industrialized monocropping system reliant on genetically modified seeds and synthetic fertilizers and pesticides (McMichael, 2009; Fairbairn, 2010). This approach led to widespread acclaim for its ability to increase crop production rapidly (Borlaug, 2002). Proponents of this system tend to prioritize yields and efficiency as primary goals, given anticipated population growth (Holt-Giménez et al., 2012). However, some have argued against the feasibility of this framework given its rising ecological costs (Franzluebbbers et al., 2020). More, the current approach has yet to eliminate food insecurity and malnutrition, not because of insufficient quantities of food, but because the distribution of, and access to, those products are inequitable (Holt-Giménez et al., 2012; FAO et al., 2022). The 2022 State of Food Security and Nutrition in the World report found that progress on mitigating and eliminating food insecurity has stagnated across the globe in recent years (FAO et al., 2022).

To this end, The Food and Agriculture Organization of the United Nations (FAO) and other international organizations responsible for that effort encouraged governments to shift their support and policies for food and agriculture toward sustainability and equity.

One sustainable and equitable alternative vision for food and agriculture is agroecology—a collection of sciences, a set of ecological and community development practices, and a social movement for food system transformation (Wezel et al., 2009, 2020). Research addressing agroecology has indicated it can restore degraded environments, help regions mitigate and adapt to climate change, improve nutrition and food security, and honor important cultural traditions obscured by the current agricultural system (Leippert et al., 2020; Anderson et al., 2021; Bezner Kerr et al., 2022). However, the scientific and policy communities alike have so far failed to prioritize agroecology or to accord it legitimacy (Montenegro de Wit and Iles, 2016; Pavageau et al., 2020). One explanation scholars have offered for this situation is that powerful actors across public and private entities, including educational institutions, are seeking to maintain their control of the current food system (Montenegro de Wit and Iles, 2016; Constance, 2018; Pavageau et al., 2020). For example, some sustainable agriculture scholars have criticized land grant universities (LGUs) for their role in helping to build and maintain the current approach (Buttel, 2005; Montenegro de Wit and Iles, 2016).

Powerful actors often employ discourse control to perpetuate the current food system praxis. This is so because public discourse plays a vital role in shaping the possibilities for global food system change (Constance, 2018). We argue that to affect material change in the existing food framework, citizens must “see” and “think” differently from the current system’s underlying assumptions. That is, the existing dominant discourse mediates the degree to which agricultural policy and praxis prioritize agroecology (Anderson et al., 2021). We contend that an agroecological food system is unlikely to be realized without a major shift in thinking among governmental, private, and educational organization leaders. To view agroecology as a legitimate possibility, our gaze needs to move toward different discourses that might enable that possibility.

With this process in mind, we offer a methodological case study that suggests how researchers can support the positioning of agroecology as realistic and valuable through *critical praxis*. Theoretically, our work builds on the idea that descriptions of food systems may variably influence possibilities for shifts in them, including toward agroecology (Anderson et al., 2021). That is, we view discourse as critical to changing the dominant food system imaginary. Second, as the current system reflects patterns of inequality, we view a critical lens to examine food system power as necessary. We identify discourse as one mechanism of power (Foucault, 1980). Given the importance of discourse as a significant agent influencing agroecological opportunities, we contend that Critical Discourse Analysis (CDA) can serve as a form of critical praxis. This article begins with a review of the literature that highlights the fact that the food system is discursive in character. Thereafter, we describe how CDA as an integrated theory and methodology can assist researchers in illuminating powerful features that influence discourse concerning the food system. We then describe how we employed this form of analysis as a form of critical praxis to raise awareness among focus group participants concerning how their work is embedded in a larger ecosystem of power. We conclude with recommendations for future

inquiry to expand on this work as well as a discussion of this study’s limitations.

Food system imaginaries and the role of discourse

Discourse and the social imaginary

Discourse is comprised of a system of interacting statements that influence our understanding of the social world (Foucault, 1972). The language, symbols, and ideas embedded within discourse contribute to meaning making as these discursive artifacts conjure mental images of people, events, and objects in individuals (Hall, 2004). Discourse can also be a vernacular, disciplinary, or otherwise, to allow people to share common understandings (Hall, 2001). In this sense, discourse reflects relations of power that influence how individuals and collectives view reality (Lather, 1991). For example, within the field of international development, a prevailing discourse in the Global North frames the Global South as underdeveloped and in need of rescue (Escobar, 1984). By fostering an image of each group, one as developed and one as underdeveloped, a power dynamic is established among those involved in international development before they meet (Escobar, 1995). Similarly, Western scientific understanding has long been privileged as ideal leading to the erasure of non-scientific knowledge including experiential, spiritual, artisanal, and indigenous forms. Such an erasure means solutions and possibilities tend to reflect only one mode of knowledge (Santos, 2007). In this way, discourse controls the possibilities of alternatives in the world (Fairclough, 2003).

Since discourse can reveal what is known or believed, knowledge and power are intricately and inexorably linked (Foucault, 1980). Reflecting this constituting power, discourse reflects purpose and is therefore never neutral (Hall, 1992; Maclure, 2003). Given its role in promoting specific beliefs, discourse is related to ideology, or put differently, a mental model for organizing the social world in terms of certain values and interests (Hall, 1986; Fairclough, 1992). Ideology in turn can influence behavior as it shapes perceptions of reality and the future. Thus, like discourse, ideology can replicate relations of power (Hall, 1986). For example, neoliberal ideology has driven the U.S. government’s domestic and foreign policy since the 1980s. Tenets of neoliberalism include smaller government, fewer social services, and a focus on market supremacy, efficiency, and productivity (Harvey, 2007). Within the global food system, neoliberalism and globalization together have led to increasing productivity toward global exports, freedom for transnational companies to dominate production, and free trade agreements that disrupt national markets (McMichael, 2005).

Both discourse and ideology are epistemological in character. The imaginary is a form of knowledge about the world that is socially manifested (Stephenson, 2011). Imaginaries can be changed, but as they often go unnoticed, they must first be brought to consciousness. Once this process has begun, if individuals are to move toward an alternative, they must actively reconsider existing values and norms (Stephenson, 2011). Deliberation is thus vital for changing the possibilities of our world, but too often such reflection focuses only on “what should be” and not “what should we do” (Levine, 2022, p. 50). We argue research can support such epistemic deliberation toward critical praxis, and we offer one approach to engage people within the

prevailing discourse and social imaginary. The next section outlines the current food system and the dominant discourse concerning it. Next, we propose agroecology as a possible answer to the “what should be” query of what might replace a production-dominated food system. We then illustrate how CDA can contribute to deliberations concerning “what should we do” and more importantly, how such a prospect might occur through research that supports critical praxis.

Agroecology and discourse

This section elaborates on agroecology as a science, practice, and social movement. As a collection of academic and scientific knowledge, agroecology incorporates agronomy to restore soil health, sustainable agriculture to reduce pesticide and synthetic fertilizer use, and environmental and ecological science to leverage natural processes and foster increased climate resilience (Wezel et al., 2009; Altieri et al., 2015; Gliessman, 2016). Agroecological practices include ecological and community development practices. Ecological processes include integrated pest management, composting, and crop diversification, among other locally-specific initiatives (Food and Agriculture Organization, 2019; Barrios et al., 2020). As a practice of community development, scientists, policymakers, and community residents, including farmers, come together in the agroecological approach to co-produce solutions that incorporate various knowledge systems such as place-based information, experiential, artisanal, and indigenous among others (Altieri and Toledo, 2011; Martínez-Torres and Rosset, 2014; Coolsaet, 2016). Such knowledge co-production can contribute toward epistemic justice because this practice affords similar standing to these ways of knowing as that accorded scientific knowledge (Santos, 2007; Coolsaet, 2016). Moreover, such collaborative and generative methodologies are required to co-produce solutions to help actors imagine possibilities that address the complex issues embedded in securing change in the current food system (Bendfeldt et al., 2021). Finally, as a social movement, agroecology reveals how the food system can be changed to reduce climate change impacts, improve health and nutrition, restore environments, encourage democratic decision-making, and include disparate values, cultural practices, and knowledge systems, while also increasing production yields (Wezel et al., 2009).

Such epistemic inclusion is unusual in the dominant food system because science has dominated agricultural knowing (Pimbert, 2018). As we established above, what we know and how we know it are intertwined with power and discourse. Recently, scholars have also defined agroecology as a discourse. In their 2021 book, Anderson and collaborators offered a typology of seven agricultural frames that support or challenge an agroecological approach. The most supportive conception is food sovereignty, a liberation and rights-based framework challenging the current food regime’s inequality, its discourse, and its underpinning neoliberal ideology (Patel, 2009; Wittman, 2010). Agroecology and food sovereignty are complementary movements, and agroecology is a primary approach to achieving food sovereignty (Altieri and Toledo, 2011; Altieri and Nicholls, 2017). Participation is the second enabling frame, reflecting the importance of participatory governance approaches to ensuring that citizen needs and views guide agricultural development and implementation (Anderson et al., 2021). The third supporting construct, cultural resonance, reflects the fact that agroecology is

culturally and locally specific, including deriving solutions from science and various knowledge systems, including farmer experiential knowledge (Foran and Escobar, 1996; Coolsaet, 2016; Pimbert, 2017; Anderson et al., 2021). The fourth frame, holism, reveals that agroecology requires a food system approach (Anderson et al., 2021). Holism acts as a mediating frame and involves attention to how the food system affects numerous sectors within society, not just agriculture (IPES-Food and ETC Group, 2021).

The fifth conception, livelihoods, suggests that life is more than economics and includes other social and cultural values, including views of justice, which are necessary to combat existing food system inequalities (Holt-Giménez et al., 2012; Anderson et al., 2021). Yet livelihoods can often be defined as economic alone, thus limiting agroecology (Anderson et al., 2021). The sixth construct, ecological modernization, sensitizes observers to the fact that while an environmental agenda is central to the agroecological approach, when that element alone is advanced in isolation or promoted by focusing on technical innovations for environmental management, agroecological transformation is likely to be stymied (Anderson et al., 2021). More, when ecological modernization is prioritized, powerful actors can co-opt the agroecological agenda (Alonso-Fradejas et al., 2020). The final frame, “feed the world,” tends to align with the current food regime. Tenets include increasing production yields, food distribution through free trade mechanisms, and a view of food as an economic commodity, rather than a human right (Fairbairn, 2010; Anderson et al., 2021). Those adopting this conception are unlikely to seek meaningful change to address the inequalities created by the current food system (Holt-Giménez et al., 2012). We turn next to a discussion of how Critical Discourse Analysis can be used as a form of critical praxis to elucidate the discursive power mediating agroecology’s meanings and possibilities for adoption.

Engaging critical discourse analysis as critical praxis

Critical Discourse Analysis (CDA) is a theory and methodology that affords scholars a mechanism to illustrate the power relationship among individual texts and larger sociological phenomena. The approach illustrates how individual texts, or “discursive events” influence, reflect, reproduce, and challenge larger social phenomena in the social and material world (Fairclough, 1992, 2003). To attend to the multi-scalar power of discourse, CDA theory employs three interactional levels, textual, discursive, and social practice. The textual level examines word choice, syntax, and verb choice in texts. By examining these characteristics, scholars can identify how a discourse conveys value and importance in descriptions of actors, events, and ideas in both instructive and normative ways (Fairclough, 2003). Such descriptions may include positive or negative attributes known as evaluation. Evaluation can aid the researcher in discovering whose interests a discourse upholds and the way it reproduces power relations (Fairclough, 2003). An analysis of verb tenses, known as modality, helps analysts assess expectations for behavior and reality. Epistemic modality communicates assertions about the current reality and the future, such as what will happen, what could happen, and what may happen. Deontic modality, meanwhile, communicates behavior expectations, such as one must, should, and could (Fairclough, 2003).

The second level of CDA is known as discursive practice. It allows researchers to identify how texts reproduce discourse, and in turn, what ideologies underpin the logics they contain (Fairclough, 1992). For example, in our case study, we investigated how a policy text drew on agroecology precepts to identify the feasibility of pursuing that approach within that policy framework. The third level of CDA, social practice, describes how discourse and the everyday praxis of those who consume discourse, maintain, modify, or contest existing power arrangements (Fairclough, 1992).

Scholars have used CDA to examine how policy, educational, and food system texts perpetuate or challenge structures of power. For example, Fairclough's (1993) work revealed how university job postings can reproduce neoliberal ideology, thereby guiding university praxis around specific values. Ayers (2005) reported similar findings in their examination of a community college mission statement as learners became repositioned as future employees. In his analysis of an apology speech by the Australian prime minister, Luke (1995) revealed how such governmental addresses can in fact perpetuate the injustice for which they sought to make amends. In their look at the discourse of partnerships within policy texts, Vavrus and Seghers (2010) analyzed how the construction of partnership represented ideological tenets and discovered how those replicated values excluded the voices of the poor for whom the policy was intended. In their analysis of British food and farming policy since Brexit, Maughan et al. (2020) revealed how despite Brexit representing a period of change and possibility, the 20 policy texts they analyzed failed to seize food justice possibilities, including undertaking participatory policy work with food system actors.

Research as critical praxis

Critical praxis emerged from Paolo Freire's work to illustrate how education can be a form of emancipation for oppressed individuals. The concept includes a process of conscientization during which dialogic pedagogy supports oppressed individuals to reflect on their identities, and the larger sociocultural, political, and economic context, to identify how they might pursue action in pursuit of social change. Freire advocated for a dialogic process aimed at uprooting systemic oppression by engaging in sympathetic inquiry with the experiences and knowledge of those traditionally oppressed. Failure to do so, he charged, fertilizes existing structures (Freire, 2005). Thus, to Freire (2005), research was akin to education when it employs similar dialogic aims toward emancipatory ends. Methodologically, this tends toward dialogic techniques such as focus groups and structured, unstructured, or semi-structured interviews (Whitehead, 2007).

At times, for researchers committed to critical praxis, this includes investigating the system within which they are employed (Kincheloe et al., 2018). Some critical scholars also consider such pursuit of change to be an ethical responsibility (Lather, 1991; Kincheloe et al., 2018). We are not the first to engage CDA as a form of critical praxis. Pimbert (2018) has applied critical inquiry to focus on university praxis in the field of food systems. Pedagogically, Weiner (2003) used CDA to examine various texts and the power relationships they may reveal. In so doing, in one example, students articulated identity representations, investigated how discourse reproduced norms, and grappled with the imbrication of discourse and power. In another instance, researchers employed CDA to examine their teaching praxis

to avoid reproducing inequities (Paugha and Robinson, 2011). Our case study focused on university praxis as it relates to agroecology. We sought thereby to contribute to conscientization among USAID-funded actors about the agroecological imaginary, how its possibilities may be bounded by policy, and how participant praxis unfolds in concert with policy and discourse.

Methodology

Using CDA, we examined nine texts related to the United States Agency for International Development's (USAID) policy framework, "The Journey to Self-Reliance" (J2SR) from 2018–2020 or what is known as a synchronic corpus (Baker, 2010; Mautner, 2016). These texts comprised the entity's complete policy, its private sector engagement executive summary, a blog post treating those two documents, two requests for applications (RFAs) for projects arising from the policy and administered by land grant universities with whose principals we conducted focus groups, and four fact sheets on local government partnerships, self-reliance project design, learning for self-reliance, and strategic transitions post self-reliance. We investigated USAID and the J2SR policy because agroecology can contribute to agrarian self-reliance (Altieri et al., 2012; Anderson et al., 2021). Yet, conceptions of self-reliance vary and may represent ideological currents (Duffield, 2007; Hébert and Mincyte, 2014; Galtung, 2019). Thus, we sought to determine how USAID represented self-reliance and agroecology in the discourse it offered. We sampled across the agency's program lifecycle from project design, policy guidance, marketing materials, project solicitation, and evaluation. We also included a document on what happens in the institution's view, when its efforts successfully help an aid recipient achieve self-reliance. We included a range of genres, or types of texts, in our analysis including a full-length policy, an executive summary, a blog post, fact sheets, a frequently asked questions sheet, and requests for applications for projects to which only U.S. universities could apply. We found all texts on USAID's J2SR website, except for the two Requests for Applications (RFA), which we found *via* a Google search as the agency had archived them.

We analyzed USAID's policy texts for their choice of vocabulary, verb usage (modality), positive and negative attributes (evaluation), and how each described various actors (representation) (Fairclough, 2003). We also examined how the corpus challenged or supported various frames of agroecological discourse (Anderson et al., 2021). Our investigation of textual elements enabled us to identify ideologies and relations of power USAID reproduced in its texts. We presented our CDA findings to focus groups of land grant university actors working on USAID-funded international development initiatives to elicit not only their responses to specific issues but also, and more importantly, to solicit their reflections regarding their praxis in light of what they had learned. As we have noted, discursively embedded power structures are typically invisible, which is why discourse analysis and other methods of critical praxis are important. By sharing the CDA findings, we sought to raise awareness among these university actors of their role in maintaining, challenging, reproducing, or modifying the social relations of power underpinning possibilities for the agroecological imaginary.

We identified our population using specific criteria. The first was land grant universities to which USAID had awarded an Innovation Lab between the years of 2018–2020. Of those institutions, we identified those with a sufficiently broad focus to engage feasibly

with the imaginary of agroecology, excluding those concentrated on one agricultural crop or commodity. Ultimately, we selected two LGU Innovation Labs awarded during our stipulated time frame. To establish our population, we included all faculty engaged with two Innovation Labs. We then recruited participants from each university via purposive sampling (Patton, 2014). Due to the COVID-19 pandemic, we conducted our focus groups via Zoom. We employed a mix of semi-structured and open-ended questions to encourage conversation among participants (Longhurst, 2003). Our four focus groups included 14 participants, nine of whom identified as economists. We began each session by asking participants to describe their relative familiarity with the USAID policy texts we had analyzed. Thereafter, we presented our findings from our CDA of those texts. After the presentation, we asked participants to respond directly to those findings and to reflect on their praxis as they did so.

We anonymized all members with pseudonyms. Using Atlas.ti Windows (Version 9.1.7.0), we analyzed our focus group conversation transcripts using inductive and in vivo coding to identify themes (Saldaña, 2013; ATLAS.ti Scientific Software Development GmbH [Atlas.ti 21 Windows] ATLAS.ti, 2021). As patterns emerged, we developed memos explaining those, and once patterns persisted, we created codes. We then returned to the beginning of the transcripts to analyze the data again according to the identified codes. We repeated this process until saturation, that is, when we could not identify any new codes (Saldaña, 2013).

Findings

This section presents findings from the CDA we undertook of USAID policy documents and the focus groups we conducted as part of a larger study. For this article, we highlight the specific CDA findings related to the J2SR corpus. That analysis illustrates two themes. The first theme demonstrated the dominance of the neoliberal imaginary in the USAID framework. The second suggested that USAID's use of participatory rhetoric in its policy was shaped profoundly by those same neoliberal assumptions. Following a brief discussion of these twin themes, we share findings from the two focus groups we conducted that suggested it may be possible to use the results of CDA to promote the cognitive openness and dialogical conditions for a new critical praxis to emerge. We do not claim to have achieved that praxis or to have transformed the perspectives of our focus group participants in such terms; instead, our aim here is to highlight how our findings suggest that engagement with CDA may serve as one path on which other praxis-oriented scholars may build to promote such possibilities among policymakers and implementers. We have organized our focus group findings to capture participants' levels of agroecology awareness. We have also sought to illustrate how our contributors reflected on, and at times resisted, the agroecological imaginary. Finally, we share their reflections on how they could imagine incorporating agroecology into their praxis.

Self-reliance and agroecological possibilities

We found that USAID policy reflected broad acceptance of the prevailing neoliberal imaginary that presumes a need to move away

from aid as a form of social support. For example, the USAID Policy Framework we analyzed, aptly entitled "Ending the Need for Foreign Assistance," posits that, "everyone, everywhere aspires to be independent - to be self-reliant" (p. 5). This quotation exemplifies the use of high epistemic modality in CDA terms, which occurs when a text leaves little room for an alternative imaginary. Put simply, the assertion is that everyone does and should aspire to a state of self-reliance as conceptualized by USAID.

The USAID policy we investigated firmly embraced and evoked market-based approaches and private sector leadership as drivers of a development as self-reliance agenda. For example, USAID's framework argues, "there is no area of USAID's work in which the private sector does not play an essential role" (p. 40), and the executive summary of the agency's private sector engagement strategy indicates that, "this policy signals an intentional shift to pursue market-based approaches... can the private sector solve this problem by itself?" (p. 2). USAID's policy repeatedly embraces a market-based approach suggesting, "a key component of building self-reliance is enterprise-driven economic transformation...in some countries, this transformation begins on farms, driven by the spread of tools and technologies that increase agricultural productivity" (Policy Framework, p. 28). As mentioned above, the feed the world productivity-oriented discourse evidenced in this quotation innately inhibits attention to other ways of addressing the challenge in play. That is, when discourse elevates the market sector to a singularly privileged status in political-economic terms, that choice profoundly limits consideration of other possible modes of organizing and knowing. Indeed, that perspective limits livelihoods to a constricted view of economics, which can lead to blindness to other values and valuation strategies that might be employed to understand these basic systems-scale dynamics. In this way, the imaginary now dominant in USAID policy actively hinders consideration of agroecological possibilities.

The second prevailing theme in the USAID policy framework is the agency's commitment to local leadership, but that leadership is narrowly defined as arising from, and contributing to, market enterprise growth. The policy also emphasizes in-country resourcing, which echoes USAID's definition of independence as a sort of autarkic self-reliance. For example, the agency's project design fact sheet indicates, "The J2SR lens also gives a heightened emphasis to in-country resourcing, with enterprise-driven growth as a key driver. Finally, it places local systems at the heart of achieving sustainable, resilient results" (p. 1). Within the Agency's self-reliance learning fact sheet, the policy's architects ask, "how can local, sub-national, national, and regional voices, priorities, and contributions be integrated into how USAID fosters self-reliance?" (p. 4). The question remains ethereally rhetorical as the possibilities for engagement its arbitrators are prepared to consider are sharply circumscribed by the Agency's devotion to a narrow economic conception of self-reliance. We turn next to a discussion of our focus group findings.

Awareness building

Agroecology, as defined by Anderson et al. (2021) was new to most of our focus participants. For example, Maya indicated that she had not previously considered an agroecological approach and therefore, "this presentation has opened my eyes to the possibility of

applying J2SR from the [agroecological] perspective.” Speaking specifically to the food sovereignty frame, Juliet indicated that “I guess their (Anderson et al., 2021) definition of food sovereignty is way broader than what we are used to” revealing that for her agroecology, and the supporting concept of food sovereignty, represented new information. Elliot also indicated that his discipline of agricultural economics has guided his impression of agroecology “as economists, we have a certain framework that we are working with, and certain terminology that we are accustomed to using...So agroecology, for me, would not have suggested that it is a label for a much broader approach.”

In a separate focus group, Mary indicated surprise that her work as an economist could be at odds with agroecological possibilities and that she would like to continue reflecting on the information revealed by the CDA:

So, I did not have any prior thoughts about this topic, but you put some thoughts in my mind. And I am not so sure how to integrate them with my discipline as an economist because most of what I do has gone to the disabling column...I would not want to say, ‘this is correct or not correct’ at this point. But these are thoughts that I would like to continue reflecting on... Of agroecology, everything is in it, and in my discipline, we try to remove as much as possible and focus [specifically] on what we want to explore. So, the idea of the [food] system within agroecology is not my mainstream.

In the same focus group as Mary, Stephen echoed the need for continued learning before rendering a critique indicating an openness to engage with the possibilities represented by agroecology, “I’m in the same situation as Mary, this is a new area for me...So, I’m not really in a position to give a critique but it is something new [and] I can read more over time.” Finally, Timothy in another focus group, indicated his confusion and interest in agroecology “I’ve struggled with having a concrete idea of what agroecology is, I’ve read about it a couple of times, I’ve helped friends research it, but I still do not feel I have a clear understanding of what it is.” For many in the focus groups, agroecology as a holistic agenda was relatively new as evidenced by their indication of curiosity and surprise at how agroecology encompassed more than they previously understood.

Reckoning and resistance

This section moves beyond awareness toward how some participants reckoned with, and at times resisted, the concepts central to the agroecological approach. Dwayne and Violet, who were in the same focus group, questioned how the agroecological frames continuum could position “food sovereignty” and “feed the world” as opposed constructs. Moreover, Violet suggested that she viewed food sovereignty as moving away from imports toward exports:

I do not see [food sovereignty and feed the world as] exclusive from one another... so you can still be food sovereign and feed the world. To me, you can have food sovereignty and contribute to feeding the world. So, we see that with big countries like the U.S. where we grow so much of our food and we are also

exporting...So to me when I am thinking about food sovereignty, it is often to step away from imports or to be less import-dependent. So, it seems that their definition is broader than that...

Dwayne expanded on Violet’s comments by sharing his conception of food sovereignty from the vantage point of his discipline of economics:

I had the same reaction as Violet to the [agroecology] frames continuum. I have always seen food sovereignty as a more economically informed concept, and as progress away from the idea of food self-sufficiency, where countries would simply produce the food, they need. That food sovereignty means they can make their own decisions about how to meet their food needs. And that explicitly could, and likely would include active trade, both importing and exporting. So again, I did not see those as being on opposite ends of the spectrum.

Similarly, Matthew expressed confusion concerning how livelihoods, when defined as only market-based activities, could undermine agroecological possibilities, “if you focus on livelihoods largely as income from market activities? How is that disabling to an agroecological approach?” Jeremy similarly grappled with the findings. He began by offering his disciplinary perspective: “I am an economist. So, some of this is probably disciplinary bias.... In addition to my training as an economist, I am also trained as a participatory community development practitioner.” He continued by expanding on how shifting away from the primacy of private-led development is antithetical to a systems approach:

Vilifying private sector initiatives as inherently disabling and seeing small-scale farming in the long run as inherently enabling, I think, is inconsistent with a kind of holistic systems approach to development... The goal of many small-scale farmers is for their kids not to be small-scale farmers. And the goal is to make enough of a living and to see the next generation do something more reliable, and less subject to weather and economic shocks. Not to continue in the same system that we have been in for a long time. And the role of the private sector isn’t necessarily to make a large profit; it’s properly designed products within the private sector that are locally appropriate, because those private sector companies are run by local interests, and have a long-term commitment to an area, can provide services and opportunities that publicly funded projects that need to maintain popular support and need to compete with other public interests for their budgets just probably can’t do in the long run.

Jeremy suggested that not promoting a private sector first model may fail, and that worse, the ideas espoused within an agroecological framework are not, in practice, held by smallholder farmers. What his reflections reveal is that the capitalistic and neoliberal logics of mainstream agricultural development make the agroecological imaginary difficult for some researchers to fathom. Jeremy’s comments at once revealed the hegemonic standing of the current way of thinking and the importance of critical praxis if that frame is to be changed.

In a different focus group, Matthew reflected, like Jeremy, on the importance of framing livelihoods in economic terms. He indicated that he believed that economic livelihoods are a precondition for survival within the current neoliberal food system:

I have always thought about promoting livelihoods [and] market access [for] farmers as a precondition to their survival... That's why I asked you earlier about what is disabling about [livelihoods as economics]. It might be disabling of the La Via Campesina's [food sovereignty] agenda... unless you make land a non-marketable commodity, which I am not sure is a very smart thing. It is not that clear to me [that economic livelihoods] are disabling some of the values of a food system.

Matthew's comments illustrate a deeper level of awareness of the agroecology and food sovereignty movements not exhibited by other participants, apparently resulting from his exposure to La Via Campesina, the international food sovereignty organization. His disciplinary thinking led him, notwithstanding, to dismiss those parts of the food sovereignty agenda that conflicted with his existing understanding.

Reflections on incorporating agroecology

This section examines how several participants reflected on how they might incorporate agroecology into their work. It represents the critical praxis possibilities implicit in the mechanism by which to move individuals from a stance of "what should we do" toward "what can we do" (Levine, 2022). For her part, Juliet reflected on how she could incorporate agroecology into her work. This represented a shift for her from learning about a new imaginary toward reckoning with how that conception could fit within her praxis:

So, I do not know how to explain [agroecology] in an easy way to the different people involved in it. It is broad and very complex. It includes so many different dimensions. So, how do you tackle all those dimensions at once with so many different stakeholders?

In another focus group, Jeremy questioned how he might discuss agroecology with farmers without imposing certain values:

Say that I go to a village in Northern Ghana, I sit down with a group of farmers who are partially disconnected from the larger agricultural world... and I ask myself, 'do they practice agroecology? And if not, why not? What keeps them from doing it? What is it about what they do that is different from what we call agroecology? And if it is different, then what do they need to practice agroecology?'

In response, the lead author explained that agroecology centers local decision-making, and so the introduction of agroecology to these farmers, if needed, would focus on those individuals themselves deciding whether they wanted to pursue that frame's aspirations. Jeremy then opined that introducing agroecology could be an imposition, "But we want to be sensitive to this idea of not wanting to impose, and so potentially Extension could get into the

world of imposition." In response, the lead author suggested that since the 1960s and 1970s, Extension had prioritized Green Revolution technologies, and how this orientation had shaped the decisions farmers took and continue to take around how they farm. In response, Timothy offered, "...that might create a justification for some sort of positive intervention to try to spur it on. And so now we must do something to try to revive something that we think may have once been there." Timothy's thought exemplifies the reflective work in which he was engaged in understanding agroecology, why continuing research on its possibilities is necessary, and how he as an international development professional might engage with that frame while managing his positionality and power. His realization revealed a possible opening to a new way of thinking. In response to Timothy's reflections, Matthew observed that the USAID's policy framework's "focus on inclusivity opens the door to what I perceive are some of the values that underpin what you call an agroecological approach." Matthew's inference indicated he was actively considering the implications of the CDA results, what they meant for agroecology, and what steps might be necessary to encourage agroecology within his development praxis.

Building critical praxis momentum

This article has discussed the possibilities of using Critical Discourse Analysis as an approach to build toward the critical praxis necessary to transform the current food system. Theoretically, we built on the recent scholarship of Anderson et al. (2021) concerning how discourse supports or challenges an agroecological imaginary. As discussed above, praxis results from a process of awareness building, reflection, dialogue, and action. The praxis of food system transformation will require engagement with alternative imaginaries, which discourse helps shape.

We have outlined one possible approach to engaging university faculty concerning how the policy discourse adopted by their funders may influence agroecological possibilities generally and shape their professional praxis, more specifically. We found that presenting CDA of policy texts to actors funded by USAID projects at land grant universities could contribute to awareness building and reflection toward an alternate critical praxis. We have illustrated how encouraging a reading of prevailing discourse can encourage reflexivity and thereby open possibilities for active consideration of the complexity and possibilities of agroecology.

Our study participants considered agroecological vernacular and practices through their disciplinary lenses and engaged with that construct in various ways. We believe that those moments of deliberation served as moments of generative awareness for many of our respondents. We suggest they represent a first step in critical praxis and building consciousness of alternative onto-epistemological realities (Niewolny, 2021). The respondents who noted their disciplinary assumptions made engaging with agroecological content difficult highlight the fact that imaginaries are composed of a widely shared set of norms, values, and beliefs. Such awareness building may support the expansion of disciplinary imaginaries beyond existing ways of knowing (Stephenson, 2011).

We caution against overstating these results, given the limited time we spent with our focus group participants. Our focus group

members' comments concerning agroecology reflected neoliberal logic, but it was outside the scope of our study to engage with participants concerning the ideological underpinnings of their responses. For example, Violet and Dwayne both suggested food sovereignty involved exporting surpluses. Jeremy indicated that the private sector is per se benevolent and fulfills a need the government cannot. Matthew argued that the food sovereignty construct is naïve. Each of these observations revealed how neoliberal ideology was deeply rooted in participants' understanding of agriculture and agricultural development. We suggest, however, that ongoing dialogue with these scholar-practitioners concerning how their responses reflect specific norms could further critical praxis. We are also persuaded that encouraging participants to engage with agroecological norms and discourse can begin to prompt active reflection on alternate systemic possibilities. We are hopeful that such epistemic work can open space for deeper intellectual and policy engagement with agroecological ideas.

Limitations and recommendations for future research

This article has explored how engaging participants with Critical Discourse Analysis through dialogue may contribute toward epistemic consciousness and active rethinking by individuals. Moreover, we suggest such efforts can begin to kindle the critical praxis required for food system transformation. Our findings are limited by the size of our sample ($n = 14$ participants), and so we encourage others to replicate our methodology with other texts and populations to determine the effectiveness of this approach. Our inquiry was also limited by the fact that we engaged participants in a discussion for 90 min. Such efforts should ideally be situated as part of a longer process in the Freirean tradition of consciousness-raising through more reflective dialogue. This is to say that critical praxis is always a journey.

We therefore also invite others to build on this work by incorporating its methodology into longer-term engagement strategies, such as semester-long courses and workshops or through repeated focus groups with the same participants. One such vehicle could be to host pre-conference workshops. We suggest that an expansion of this analysis to additional U.S. universities funded by USAID would assist in understanding agroecological possibilities from more vantage points. Finally, we contend that this framework would benefit from the participation of those who wrote the policy texts analyzed, to determine how engagement with CDA might elicit active epistemic-scale reflection among those positioned to design and fund policy initiatives.

References

- Alonso-Fradejas, A., Forero, L. F., Ortega-Espès, D., Drago, M., and Chandrasekaran, K. (2020) 'Junk agroecology': the corporate capture of agroecology for a partial ecological transition without social justice.
- Altieri, M. A., Funes-Monzote, F. R., and Petersen, P. (2012). Agroecologically efficient agricultural systems for smallholder farmers: contributions to food sovereignty. *Agron. Sustain. Dev.* 32, 1–13. doi: 10.1007/s13593-011-0065-6
- Altieri, M. A., and Nicholls, C. I. (2017). Agroecology: a brief account of its origins and currents of thought in Latin America. *Agroecol. Sustain. Food Syst.* 41, 231–237. doi: 10.1080/21683565.2017.1287147
- Altieri, M. A., Nicholls, C. I., Henao, A., and Lana, M. A. (2015). Agroecology and the design of climate change-resilient farming systems. *Agron. Sustain. Dev.* 35, 869–890. doi: 10.1007/s13593-015-0285-2
- Altieri, M. A., and Toledo, V. M. (2011). The agroecological revolution in Latin America: rescuing nature, ensuring food sovereignty and empowering peasants. *J. Peasant Stud.* 38, 587–612. doi: 10.1080/03066150.2011.582947
- Anderson, C. R., Bruil, J., Chappell, J., Csilla, K., and Pimbert, M. P. (2021). *Agroecology now! Transformations towards more just and sustainable food systems*. Cham, Switzerland: Palgrave Macmillan.

Data availability statement

The data analyzed in this study is subject to the following licenses/restrictions: Virginia Tech IRB Data Restrictions. Requests to access these datasets should be directed to Lia Kelinsky-Jones, lkelins1@jhu.edu.

Ethics statement

The studies involving human participants were reviewed and approved by Virginia Tech Institutional Review Board. The patients/participants provided their written informed consent to participate in this study.

Author contributions

LK-J undertook the study and developed the methodological conceptualization employed here as part of her doctoral dissertation. KN provided supervision. KN and MS provided theoretical and methodological framing, literature suggestions, reviews and edits to drafts, and contributed to writing. All authors contributed to the article and approved the submitted version.

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Conflict of interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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- ATLAS.ti. Scientific software development GmbH [Atlas.Ti 21 windows] (2021) 'Atlas.ti'. Retrieved from <https://atlasti.com>.
- Ayers, D. F. (2005). Neoliberal ideology in community college Mission statements: a critical discourse analysis. *Rev. High. Educ.* 28, 527–549. doi: 10.1353/rhe.2005.0033
- Baker, P. (2010). *Sociolinguistics and corpus linguistics, Sociolinguistics and corpus linguistics*. Edinburgh: Edinburgh University Press Ltd.
- Barrios, E., Gemmill-Herren, B., Bicksler, A., Siliprandi, E., Brathwaite, R., Moller, S., et al. (2020). The 10 elements of agroecology: enabling transitions towards sustainable agriculture and food systems through visual narratives. *Ecosyst. People* 16, 230–247. doi: 10.1080/26395916.2020.1808705
- Bendfeldt, E., McGonagle, M., and Niewolny, K. (2021). Rethinking farmer knowledge from soil to plate through narrative inquiry: an agroecological food systems perspective. *J. Agric. Food Syst. Commun. Dev.* 11, 1–15. doi: 10.5304/jafscd.2021.111.012
- Bezner Kerr, R., Liebert, J., Kansanga, M., and Kpienbaareh, D. (2022). Human and social values in agroecology: a review. *Element. Sci. Anthropol.* 10, 1–24. doi: 10.1525/ELEMENTA.2021.00090
- Borlaug, N. E. (2002). The green revolution revisited and the road ahead. *Econ. Dev. Cult. Change* 31, 705–725. doi: 10.1086/451354
- Buttel, F. H. (2005). Ever since Hightower: the politics of agricultural research activism in the molecular age. *Agric. Hum. Values* 22, 275–283. doi: 10.1007/s10460-005-6043-3
- Constance, D. H. (2018). "Contested sustainability discourses in the agrifood system an overview" in *Contested sustainability discourses in the agrifood system*. eds. D. H. Constance, J. Konefal and M. Hatanaka (Abingdon: Taylor & Francis), 3–16.
- Coolsaet, B. (2016). Towards an agroecology of knowledges: recognition, cognitive justice and farmers' autonomy in France. *J. Rural. Stud.* 47, 165–171. doi: 10.1016/j.jrurstud.2016.07.012
- Duffield, M. (2007). *Development, security and unending war: Governing the world of peoples*. Cambridge: Polity Press.
- Escobar, A. (1984). Discourse and power in development: Michel Foucault and the relevance of his work to the third world. *Alternatives* 10, 377–400. doi: 10.1177/030437548401000304
- Escobar, A. (1995). *Encountering development: The making and unmaking of the Third World*. Princeton University Press.
- Fairbairn, M. (2010). "Framing resistance: international food regimes and the roots of food sovereignty" in *Food sovereignty: Reconnecting food, nature and community*. eds. H. Wittman, A. Desmarais and N. Wiebe (Nova Scotia: Fernwood Publishing)
- Fairclough, N. (1992). *Discourse and social change*. Polity Press.
- Fairclough, N. (1993). Critical discourse analysis and the marketization of public discourse: the universities. *Discourse Soc.* 4, 133–168. doi: 10.1177/0957926593004002002
- Fairclough, N. (2003) *Analysing discourse: Textual analysis for social research*. New York: Routledge
- FAO, IFAD, UNICEF, WFP, and WHO (2022). *The state of food security and nutrition in the world 2022. The state of food security and nutrition in the world 2022*. Rome: FAO.
- Food and Agriculture Organization (2019) The 10 elements of agroecology: Guiding the transition to sustainable food and agricultural systems. Available at: <http://www.fao.org/3/i9037en/i9037en.pdf>
- Foran, J., and Escobar, A. (1996). Encountering development: the making and unmaking of the third world. *Contemp. Sociol.* 25:58. doi: 10.2307/2076961
- Foucault, M. (1972). *The archaeology of knowledge and the discourse on language*. London: Vintage Books.
- Foucault, M. (1980) *Power/knowledge: Selected interviews & other writings 1972–1977*. New York: Pantheon Books.
- Franzluebbers, A. J., Wendroth, O., Creamer, N. G., and Feng, G. G. (2020). Focusing the future of farming on agroecology. *Agric. Environ. Lett.* 5, 1–6. doi: 10.1002/ael2.20034
- Freire, P. (2005). *Pedagogy of the oppressed: 30th anniversary edition*. New York: Continuum.
- Galtung, J. (2019). "The politics of self-reliance" in *From dependency to development strategies to overcome underdevelopment and inequality*. ed. H. Munoz (New York: Routledge), 173–196.
- Gliessman, S. (2016). Transforming food systems with agroecology. *Agroecol. Sustain. Food Syst.* 40, 187–189. doi: 10.1080/21683565.2015.1130765
- Hall, S. (1986). The problem of ideology – Marxism without guarantees. *J. Commun. Inq.* 10, 28–44. doi: 10.1177/019685998601000203
- Hall, S. (1992). "The west and the rest: discourse and power" in *Race and racialization: Essential readings*. eds. T. D. Gupta, C. E. James, R. C. A. Maaka, G. E. Galabuzi and C. Andersen (Toronto, Canada: Canadian Scholars), 85–95.
- Hall, S. (2001). "Foucault, power, knowledge and discourse" in *Discourse theory and practice: A reader*. eds. M. Wetherell, S. Taylor and S. Yates (London: Sage Publications), 72–81.
- Hall, S. (2004). "Foucault & discourse" in *Social research methods: A reader*. ed. C. Seale (London: Routledge), 345–349.
- Harvey, D. (2007). *A brief history of neoliberalism*. New York: Oxford University Press. Available at: <https://doi.org/10.1093/oso/9780199283262.001.0001>.
- Hébert, K., and Mincyte, D. (2014). Self-reliance beyond neoliberalism: rethinking autonomy at the edges of empire. *Environ. Plann. D Soc. Space* 32, 206–222. doi: 10.1068/d6312
- Holt-Giménez, E., Shattuck, A., Altieri, M., Herren, H., and Gliessman, S. (2012). We already grow enough food for 10 billion people... and still can't end hunger. *J. Sustain. Agric.* 36, 595–598. doi: 10.1080/10440046.2012.695331
- IPES-Food and ETC Group (2021) A long food movement: Transforming food systems by 2045. Available at: http://www.ipes-food.org/_img/upload/files/LongFoodMovementEN.pdf
- Kincheloe, J. L., McLaren, P., Steinberg, S. R., and Monzo, L. D. (2018). "Critical pedagogy and qualitative research: advancing the bricolage" in *The SAGE handbook of qualitative research*. eds. N. K. Denzin and Y. S. Lincoln (Los Angeles: Sage Publications), 235–260.
- Lather, P. (1991). *Getting smart* Routledge.
- Leippert, F., Darmaun, M., Bernoux, M., and Mphesha, M. (2020). *The potential of agroecology to build climate-resilient livelihoods and food systems*. Rome: FAO and Biovision
- Levine, P. (2022). *What should we do? A theory of civic life, firestorm*. New York: Oxford University Press.
- Longhurst, R. (2003). "Semi structured interviews and focus groups" in *Key methods in geography*. eds. N. Clifford and G. Valentine (London: Sage), 143–156.
- Luke, A. (1995). Text and discourse in education: an introduction to critical discourse analysis. *Rev. Res. Educ.* 21, 3–48. doi: 10.3102/0091732X021001003
- Maclure, M. (2003). "Definitions of discourse: a sketchy overview" in *Discourse in educational and social research* (Buckingham: Open University Press), 174–191.
- Martínez-Torres, M. E., and Rosset, P. M. (2014). Diálogo de saberes in La Via Campesina: food sovereignty and agroecology. *J. Peasant Stud.* 41, 979–997. doi: 10.1080/03066150.2013.872632
- Maughan, C., Anderson, C. R., and Kneafsey, M. (2020). A five-point framework for reading for social justice: a case study of food and farming policy discourse in the context of Brexit Britain. *J. Agric. Food Systems Commun. Dev.* 9, 1–20. doi: 10.5304/jafscd.2020.093.024
- Mautner, G. (2016). "Checks and balances: how corpus linguistics can contribute to CDA" in *Methods of critical discourse studies*. eds. R. Wodak and M. Meyer (London: SAGE Publications), 155–179.
- McMichael, P. (2005). Global development and the corporate food regime. *Res. Rural. Sociol. Dev.* 11, 269–303. doi: 10.1016/S1057-1922(05)11010-5
- McMichael, P. (2009). A food regime genealogy. *J. Peasant Stud.* 36, 139–169. doi: 10.1080/03066150902820354
- Montenegro de Wit, M., and Iles, A. (2016). Toward thick legitimacy: creating a web of legitimacy for agroecology. *Elementa*, 1–24. doi: 10.12952/journal.elementa.000115
- Niewolny, K. L. (2021). Boundary politics and the social imaginary for sustainable food systems. *Agric. Hum. Values* 38, 621–624. doi: 10.1007/s10460-021-10214-0
- Patel, R. (2009). Food sovereignty. *J. Peasant Stud.* 36, 663–706. doi: 10.1080/03066150903143079
- Patton, M. Q. (2014). Converting from d to r to z when the design uses extreme groups, dichotomization, or experimental control. *Psychol. Methods* 19, 92–112. doi: 10.1037/a0033788
- Paugha, P., and Robinson, E. (2011). Keeping a "vigilant critique": unpacking critical praxis as teacher educators. *Int. J. Qual. Stud. Educ.* 24, 363–378. doi: 10.1080/09518398.2010.538747
- Pavageau, C., Pondini, S., and Geck, M. (2020) Money flows: what is holding back investment in agroecological research for Africa? Available at: https://ipes-food.org/_img/upload/files/MoneyFlows_Summary_EN.Pdf
- Pimbert, M. P. (2017). "Constructing knowledge for food sovereignty, agroecology and biocultural diversity: an overview" in *Food sovereignty, agroecology and biocultural diversity: Constructing and contesting knowledge*. ed. M. P. Pimbert (Abingdon: Routledge), 1–56.
- Pimbert, M. P. (2018). "Democratizing knowledge and ways of knowing for food sovereignty, agroecology and biocultural diversity" in *Food sovereignty, agroecology and biocultural diversity: Constructing and contesting knowledge*. ed. M. P. Pimbert (Routledge), 259–321.
- Saldaña, J. (2013) *The coding manual for qualitative researchers. 2nd*. London: Sage.
- Santos, B. S. (2007). Beyond abyssal thinking: from global lines to ecologies of knowledges. *Review* 30, 45–89.
- Stephenson, M. O. Jr. (2011). Considering the relationships among social conflict, social imaginaries, resilience, and community-based organization leadership. *Ecol. Soc.* 16. doi: 10.5751/es-03953-160134
- Vavrus, F., and Seghers, M. (2010). Critical discourse analysis in comparative education: a discursive study of "partnership" in Tanzania's poverty reduction policies. *Comp. Educ. Rev.* 54, 77–103. doi: 10.1086/647972

Weiner, E. J. (2003). Beyond doing cultural studies: toward a cultural studies of critical pedagogy. *Rev. Educ. Pedag. Crit. Stud.* 25, 55–73. doi: 10.1080/10714410309614

Wezel, A., Bellon, S., Doré, T., Francis, C., Vallod, D., and David, C. (2009). Agroecology as a science, a movement and a practice. A review. *Agron. Sustain. Dev.* 29, 503–515.

Wezel, A., Herren, B. G., Kerr, R. B., Barrios, E., Gonçalves, A. L. R., and Sinclair, F. (2020). Agroecological principles and elements and their implications for transitioning to sustainable food systems. A review. *Agron. Sustain. Dev.* 40, 1–13. doi: 10.1007/s13593-020-00646-z

Whitehead, D. (2007) *An overview of research theory and process, in Nursing & midwifery research. Methods and appraisal for evidence-based practice.* Sydney: Elsevier, 20–32.

Wittman, H. (2010). “Reconnecting agriculture and the environment: food sovereignty and the agrarian basis of ecological citizenship” in *Food sovereignty: Reconnecting food, nature and community.* eds. H. Wittman, A. Desmarais and N. Wiebe (Nova Scotia: Fernwood Publishing), 91–105.