

Alienation from Natures: Capitalism, Ideology, and the Production of the Ecological Subject

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ABSTRACT. This paper argues that ecological destruction under capitalism is not only a set of material processes but the product of subject formation: capitalism produces ecological subjects (individuals shaped by interlocking economic structures and ideological apparatuses to experience instrumental relations to the natural world as normal rather than as loss). Drawing on Karl Marx’s account of alienation and Louis Althusser’s theory of ideological interpellation, I show how the combined force of material dispossession and ideological conditioning installs ecological instrumentalism as durable practice: what Roger Gottlieb calls “belief-2.” I defend this synthesis against reformist and techno-optimist objections and situate it within environmental philosophy by examining what a structural account adds to the work of Aldo Leopold, Carolyn Merchant, and David Abram. The paper concludes with modest, institutionally-focused directions for intervention (educational redesign, infrastructural disincentives, and critical scholarship) while acknowledging that the ecological subject is a subject position I inhabit as I write.

KEYWORDS: Alienation, Capitalism, Ideology, Ecology.

1. Introduction

Environmental destruction is one of the defining crises of our time, and yet it persists despite decades of growing public awareness, scientific consensus, and stated moral concern. This paradox, that people increasingly know about ecological collapse and yet continue participating in the systems that produce it, is one that standard environmental discourse struggles to explain. Appeals to individual behavior change or better policy are insufficient responses to what I want to argue is a much deeper problem: the production of subjects who are ideologically conditioned to relate to nature in ways that make genuine ecological consciousness extraordinarily difficult to achieve.

This paper argues that capitalism produces ecological crisis not only by materially degrading the natural world, but by producing subjects who are structurally inclined to experience that degradation as normal. This figure is what I call the “ecological subject”: an individual whose perceptual habits, embedded practices, and institutional expectations orient them toward instrumental relations to nature by default, prior to conscious choice. The paper defends this claim through two coupled mechanisms, material alienation (Marx) and ideological interpellation (Althusser), supports it with illustrative institutional examples, and shows why changes at the level of consciously held belief are unlikely to suffice without interventions that reach the level of embedded practice. It proceeds in four steps: laying out Marx’s account of alienated labor and extending it to the ecological domain; examining how Althusser’s Ideological State Apparatuses reproduce ecological ideology alongside class ideology; synthesizing these frameworks into the concept of the ecological subject, drawing on Professor Gottlieb’s distinction between consciously held beliefs and embedded ideological practices; and situating this synthesis in dialogue with Leopold, Abram, and Sanbonmatsu to show what a structural account adds to environmental philosophy.

2. Marx, Capitalism, and Alienation

Before extending Marx's concept of alienation to the ecological domain, it is worth laying out the classical framework he establishes. Marx's account of alienated labor is foundational not only to his critique of capitalism but to any analysis of how capitalism shapes human subjectivity more broadly. Understanding what it means for workers to be alienated from their labor and from one another is necessary groundwork for the argument that humans are similarly alienated from the natural world.

Marx's framework is by now familiar: under capitalism, workers are estranged from their labor, from its products, and from one another, as competitive market relations reduce social life to exchanges between autonomous agents pursuing private gain [3]. These conditions of alienation are the starting point, not the destination, of the argument this paper needs to make.

What is striking about Marx's account, particularly in the *Economic and Philosophic Manuscripts of 1844*, is that alienation does not stop at the level of labor or social relations. Marx gestures toward a deeper estrangement, from what he calls our "species-being": the distinctly human capacity to relate consciously and creatively to the natural world, to treat nature not merely as an instrument of survival but as the medium of our self-expression and self-recognition as a species. For Marx, nature is not merely a backdrop to human activity but the "inorganic body" of the human being, the material through which we express our humanity. A non-alienated relationship to nature would be one of conscious, purposive engagement, transforming the natural world while remaining aware of our dependence on and continuity with it. Under capitalism, however, this relationship is profoundly strained. The logic of accumulation requires that nature function as an infinite reservoir of inputs: raw material to be extracted, processed, and converted into commodities whose value is entirely instrumental. The worker who is alienated from their product is simultaneously alienated from the natural world that product comes from; both tend to be treated as objects in the service of capital accumulation. What had been the medium of species-self-expression becomes mere

resource. This extension of alienation into the ecological domain is underdeveloped in Marx himself, but it is a plausible and significant consequence of his framework, and it is the dimension this paper seeks to take seriously [2]. But explaining the material fact of ecological alienation is not the same as explaining why it feels so unremarkable (why it registers not as loss but as normalcy), and for that we need a theory of how subjects are produced to accept it.

3. Althusser, Ideology, and the Interpellated Subject

Marx's account of alienation establishes the material conditions through which capitalism severs the human relationship to nature. But material conditions alone do not explain why this estrangement feels so pervasive, so unremarkable, so natural. For that, we need to ask a different question: how are subjects produced who do not experience their alienation from nature as a loss at all? Louis Althusser's theory of ideological interpellation provides the framework for answering this question. Where Marx shows us what capitalism does to the human relationship with the natural world, Althusser shows us how capitalism produces individuals who are constituted to tend to accept that relationship as simply the way things are.

Louis Althusser revolutionized the understanding of ideology and state power with his essay "Ideology and Ideological State Apparatuses." Unlike traditional Marxist analyses that emphasized economic determinism and class struggle as primary drivers of historical change, Althusser posits that ideology plays a pivotal role in shaping individuals' subjectivity and perpetuating social structures. Althusser introduces the concept of Ideological State Apparatuses (ISAs), such as education and media, which function not merely to transmit ideas but to interpellate individuals as subjects within ideological frameworks, constituting them, rather than simply informing them.

Althusser's analysis extends beyond ISAs to include the Repressive State Apparatus (RSA), which he contrasts with ISAs in "Ideology and Ideological State Apparatuses." While ISAs operate through ideological means to shape individuals' subjectivities, the RSA (the police, courts, and

military) maintains social order through coercion and force. Unlike ISAs, which primarily function through consent and ideological interpellation, the RSA enforces compliance through direct repression and punitive measures. This dual apparatus theory highlights Althusser's nuanced understanding of state power, where ideological domination and coercive force work in tandem to uphold and reproduce the prevailing social order.

The RSA and ISAs are not merely supplementary components of state order but fundamentally interdependent mechanisms. The RSA ensures compliance through the threat of force, while ISAs foster consent by framing dominant ideologies as natural and inevitable, securing not just obedience but genuine subjective investment in the social order. Without both operating in tandem, the stability of societal hierarchies would be jeopardized; each apparatus serves distinct yet complementary functions in maintaining the ideological and material dominance of the ruling class. Thus, Althusser's framework prompts us to critically examine how state apparatuses operate not only to govern but also to reproduce social stratification, illustrating the intricate ways in which power is exercised and maintained within modern societies [1].

Althusser uses this established inevitability of ISAs and RSAs to highlight how "individuals are always-already subjects" [1, p. 87]. This leads to the conclusion that "individuals are 'abstract' with respect to the subject which they always-already are" [1, p. 87]. Here, Althusser contends that individuals exist as subjects in an abstract sense because their subjectivity is predetermined and shaped by ideological and repressive state apparatuses. The abstraction of the individual as a subject means that their identity and agency are not self-contained or self-determined but are defined and delimited by external social structures and discourses. This abstraction emphasizes the systemic nature of subject formation, wherein individuals' thoughts, actions, and identities are shaped by the ideological and coercive forces that surround them.

What Althusser's framework makes possible, when turned toward the ecological domain, is a richer account of why environmental ideology is so durable. The ISAs (schools, media, religious institutions, the family) do not

merely fail to teach ecological solidarity. They actively transmit a set of assumptions about the human relationship to the natural world: that nature is a resource to be managed, that economic growth is the measure of social progress, that human supremacy over other species is the natural order of things. These tend not to be beliefs that individuals consciously adopt after deliberation. They are the ideological water we swim in, the unexamined assumptions that structure perception before reflection begins. If Althusser is right that individuals are always-already subjects, then they are always-already ecological subjects, interpellated into a relationship with nature that serves the reproduction of capitalist social relations. This is not incidental to the class dimension of interpellation: capitalism's accumulation logic requires nature to function as a freely available input, and any subject who perceived the natural world as intrinsically valuable, or as a community to which they belonged rather than a resource they managed, would be a subject imperfectly suited to that logic. The ecological worldview is not a side effect of capitalist ideology; it is a condition of its reproduction. It is this process of production that the following section seeks to examine directly. Gottlieb's framework allows us to see precisely where that ideology lodges, not in conscious belief, but in practice.

4. The Production of Ecological Subjects

The ecological subject, as this paper constructs the concept by synthesizing the frameworks above, is not a cartoon villain who consciously despises nature. That caricature is too easy, and more importantly, it misidentifies where ideology actually operates. The ecological subject is something far more ordinary: a person who is highly rational within a very specific value system, one that interprets the natural world primarily through the lens of utility, optimization, and extraction. Forests become board-feet of timber. Land becomes real estate. Rivers become hydroelectric potential. Nature becomes a dataset, a resource pool, an input. This is not malice. It is instrumentalism, and it is a dominant mode of perception that capitalist ISAs tend to reproduce, not uniformly in every person, but as a structural default that shapes perception well before conscious reflection begins.

I notice this subject position in myself. As a physics student, I am trained to reduce complex systems to tractable models: parameterize, approximate, optimize. There is something genuinely powerful about that. But there is also a subtle ideological slide in which the world becomes a system to manipulate rather than something to dwell within, in which the question “how does this work?” becomes inseparable from “how can this be controlled?” This is not unique to physics: it is a habit of perception that capitalist modernity distributes broadly. Most of us are shaped, across education, media, and market life, to see the natural world as something to be optimized, not inhabited. Even environmentalism can be absorbed into this logic: carbon accounting, efficiency metrics, “green growth,” still framed in terms of management and control. The ecological subject does not disappear when someone recycles or buys an electric vehicle. The underlying orientation toward nature as external, quantifiable, and optimizable remains intact.

This is precisely where Professor Gottlieb’s distinction between belief-1 and belief-2 does its most important work [4]. For Gottlieb, ideology does not operate primarily at the level of articulated opinion but at the level of practice and perception. Belief-1 is the consciously held position: what we would say if asked what we think: I believe climate change is urgent, that decarbonization matters, that fossil fuel dependency is structurally catastrophic. Belief-2 is the ideology embedded in practice: the habits, infrastructures, and orientations that structure behavior below the threshold of deliberation. When I say belief-1 has fully “reached” belief-2, I mean there is no ignorance left to excuse the gap: the consciously held concern has become fully articulate, and still it does not reorganize behavior. But belief-2 is the ideology embedded in practice, and mine tells a different story. I still fly. I fly to visit family, to conferences, and I would fly for a research opportunity without hesitating too long. I justify it: my individual contribution is small; structural change matters more than personal purity; academic mobility is professionally necessary. These justifications may be partially true, but they also function as rationalizations that preserve my lifestyle within the very system I critique. What is revealing about this gap is that it is not produced by ignorance; I know. And yet knowing does not

automatically reorganize how I move through the world, because belief-2 is embedded in infrastructures that make certain behaviors frictionless and others costly. This is not dramatic hypocrisy. It is ordinary complicity, and ordinary complicity may be the more honest form of the belief-1/belief-2 gap: not that people secretly do not care, but that caring does not automatically transform subjectivity. Whether that subjectivity can be transformed at all is a question the paper returns to at the close, but Gottlieb's point is that any meaningful answer is likely to need to engage belief-2, not belief-1.

Carolyn Merchant's historical account of the "ecological revolution" helps explain how we arrived at this condition [5]. The shift from an organic to a mechanistic conception of nature, from Aristotelian teleology to the mathematical physics of Descartes and Newton, was not merely a philosophical adjustment. It restructured explanation itself. Final causes gave way to efficient causes. Organisms became systems of parts. The cosmos became legible as mechanism. We cannot deny how powerful that framework is; everyone in modernity depends on it daily, and it has produced real knowledge about the world. The question Merchant presses, and one worth taking seriously, is whether scientific engagement with nature necessarily entails viewing it "poorly": whether the mechanistic lens can coexist with a sense of nature's intrinsic value, or whether the two orientations are in fundamental tension. My inclination is that the lens itself is not the problem; it is the cultural and institutional context in which it becomes the only lens. But Merchant's point is about its cultural consequences when it does. When nature is understood as inert matter in motion, it becomes conceptually easier to frame it as passive, manipulable, and available for extraction. The metaphor of the machine does not force exploitation, but it normalizes control and strips nature of intrinsic agency. Once nature is framed as machine, large-scale intervention feels not just possible but natural.

To see how ISAs and RSAs operate in tandem on the ecological domain, consider a concrete case. In the United States, public school science curricula frequently frame natural systems in terms of resources, cycles,

and human utility; students are commonly taught about “ecosystem services” and “natural resource management” rather than ecological membership or intrinsic value. This pattern is not incidental; it reflects curricular standards shaped by state institutions that also subsidize fossil fuel extraction on the order of tens to hundreds of billions of dollars annually in the United States alone, according to IMF estimates [10]. The ISA shapes perception from childhood; the RSA institutionalizes extraction as the rational default. The ecological subject is produced at both registers simultaneously, formed first in the classroom, then reinforced by the legal and fiscal architecture of the state.

Where I find myself resisting a clean version of this argument is on the question of systemic versus individual responsibility, and here it is worth acknowledging the strongest objections to a structural account. Liberal reformism holds that better incentives, smarter regulation, and informed consumer choice can gradually shift ecological outcomes without deeper structural transformation. Techno-optimism and eco-modernism go further, arguing that capitalism’s own productive forces (carbon capture, nuclear energy, precision agriculture) will decouple growth from ecological destruction. These are not trivial positions. But they both assume that the ecological subject can be reformed from within the same ideological conditions that produced them: that belief-1 change, transmitted through market signals or policy nudges, will eventually reorganize belief-2. What Althusser’s framework suggests is that this assumption misunderstands how ideology works. Belief-2 is not downstream of belief-1; it tends to be structurally reproduced largely independently of what individuals consciously come to believe. That said, I am uncomfortable letting structural causation collapse into moral paralysis. Sanbonmatsu and Weston persuasively argue that the devaluation of nature is systemic [6] [7], but systems are also reproduced through aggregated individual behavior. The constraints are real, but so is agency, and recognizing the structure does not relieve us of tension so much as clarify what kind of change is actually adequate to the problem.

The more honest position, I think, is that individual moral failure is structured, shaped and stabilized by systems, but not erased by them. Here the RSA dimension of Althusser's framework becomes relevant in a way that initially surprised me. Fossil fuel subsidies and struck-down environmental regulations look, on the surface, like straightforward policy decisions. But they also encode a worldview: that fossil energy is normal, necessary, and worthy of collective support. When courts institutionalize this, they are not merely coercing; they are stabilizing the boundary conditions for what ecological futures appear imaginable or legally reasonable. The ideological and the repressive apparatus are not separate layers but a coupled system: the ISAs shape subjects who accept fossil-fueled growth as common sense, while the RSA protects and institutionalizes that structure through law and policy. They co-produce the ecological subject.

That unresolved tension, between structural causation and individual complicity, between critique and ordinary participation, feels more honest to me than resolving it cleanly in either direction. And it may itself be evidence of ideology's depth. The ecological subject is not someone else. It is the subject position I inhabit much of the time, even as I write this.

5. Environmental Philosophy in Dialogue

The frameworks developed in the preceding sections do not exist in isolation from the broader conversation in environmental philosophy. Thinkers in this tradition have long grappled with the human relationship to nature, and engaging their work helps situate the concept of the ecological subject within a richer philosophical context, while also revealing what a structural ideological analysis can add to these discussions. The question, in each case, is not whether these thinkers diagnose something real, but whether they can explain why the condition they diagnose is so stable.

Aldo Leopold's land ethic offers perhaps the clearest vision of what a genuinely de-alienated ecological subjectivity might look like. Writing in *A Sand County Almanac*, Leopold proposes a fundamental extension of the

ethical community: the individual is not a conqueror of the land community but a plain member and citizen of it [8]. This is a direct inversion of the ecological subject as I have described it. Where the ecological subject perceives nature as external, quantifiable, and available for extraction, Leopold's ethical vision asks us to perceive ourselves as embedded within a biotic community whose integrity places genuine moral claims on us. His criterion, that a thing is right when it tends to preserve the integrity, stability, and beauty of the biotic community, and wrong when it tends otherwise, presupposes a mode of perception radically different from the instrumentalism capitalism reproduces.

What Leopold does not fully account for, however, is why this perceptual shift is so difficult to achieve. He offers a compelling normative vision but does not theorize the structural mechanisms that reproduce the ecological subject who find it difficult to see themselves as a member of a biotic community in the first place. This is where the Althusserian dimension of my argument becomes necessary.

David Abram approaches the problem from a phenomenological direction that complements Leopold while operating at a different register. In *The Spell of the Sensuous*, Abram argues that alphabetic literacy and the abstraction it enables have progressively severed Western culture from the sensory, reciprocal engagement with the animate earth that oral and indigenous cultures sustain [9]. For Abram, ecological alienation is not only economic or ideological; it is perceptual and bodily. Capitalist modernity deepens this alienation further: screens, commodities, and manufactured environments increasingly mediate our sensory experience, substituting representations of the world for direct engagement with it. The result is a subject whose perceptual world is largely constructed from human artifacts, and for whom the more-than-human world has become genuinely difficult to attend to.

Abram's analysis resonates with the concept of the ecological subject but does not explain its reproduction. Where my account emphasizes the ideological and structural mechanisms of subject production, Abram attends to the phenomenological texture of what alienation from nature

actually feels like, or, more precisely, fails to feel like. Both diagnoses are valuable; neither is sufficient alone.

The tension between environmental ethics and animal rights ethics also becomes more legible through the lens developed here. Leopold's land ethic, operating at the level of ecosystems and species, is willing to subordinate individual animal interests to the integrity of the biotic community. Sanbonmatsu, by contrast, insists on the moral visibility of individual animal suffering, arguing that the systematic exploitation of animals is not incidental to capitalist modernity but constitutive of it [6]. Rather than adjudicating this debate directly, what the ecological subject framework contributes is a structural account of why the debate is so persistent: different interpellated subject positions produce different ethical visibilities. A subject shaped primarily through ecological systems thinking will perceive the land community as the relevant moral unit; a subject who has worked through the ideological normalization of speciesism will find individual animal suffering morally legible in a way that Leopold's holism does not foreground. The disagreement maps, at least in part, onto the different ideological formations that make certain ethical claims visible and others difficult to register, which is precisely what the ecological subject thesis predicts.

What the Marx and Althusser framework gives me that Leopold and Abram cannot fully supply on their own is an account of reproduction and constraint. Leopold gives a normative vision, and Abram gives a phenomenological diagnosis of perceptual alienation. Both are compelling at the level of experience and moral orientation. But neither fully explains why disconnection persists even when people intellectually agree with them, why reading Leopold does not automatically produce a Leopold-ian subject. The Marx and Althusser framework adds the structural dimension: how economic relations, state institutions, and ideological apparatuses actively reproduce ecological subjectivity across generations, largely independent of what any individual comes to believe. It shifts the question from "why don't we see correctly?" to "what material and institutional conditions make certain ways of seeing durable?" Leopold and Abram

diagnose the problem at the level of vision and value. This paper has tried to explain why the problem is stable.

6. Conclusion

This paper has argued that ecological crisis under capitalism is sustained by a dual mechanism that operates simultaneously at the material and ideological levels. Marx establishes the first dimension: capitalism commodifies the natural world, transforming nature from the “inorganic body” of the human being into a resource pool, an input, an externality. Workers alienated from their labor are simultaneously alienated from the natural conditions of that labor. The ecological subject is, at the material level, a product of this process.

But material alienation alone does not explain the depth of the problem. Althusser’s account of ideological interpellation supplies the second dimension: the ISAs (schools, media, religious institutions, the family) do not merely transmit neutral information. They actively reproduce the conditions under which ecological alienation feels natural, inevitable, and unremarkable. The ecological subject is not simply someone who has been materially dispossessed of their relationship to the natural world. They are someone who has been shaped, over time, to experience that dispossession as the normal order of things.

This may help explain why much environmental discourse falls short. Campaigns aimed at changing belief-1, shifting what people consciously think about climate change, biodiversity loss, or animal exploitation, are unlikely to be sufficient on their own. As Gottlieb’s framework makes clear, it is belief-2 that ideology inhabits: the unexamined assumptions embedded in practice, infrastructure, and perception [4]. And Althusser tells us that belief-2 is not produced individually. It is reproduced structurally, across generations, through institutions that operate largely below the threshold of conscious reflection.

What would a genuinely non-alienated ecological subjectivity require? Leopold points toward a normative horizon (membership in a biotic

community rather than conqueror of it) and Abram points toward a phenomenological one (sensory re-engagement with the animate earth) [8] [9]. Both are valuable. But if this paper's argument is right, neither may be sufficient on its own without transformation of the material and ideological conditions that produce ecological subjects in the first place. Persuasion and moral vision matter, but they operate against the grain of apparatuses that are continuously reproducing the very subjectivity they are trying to change.

This does not mean the analysis is politically inert. If the ecological subject is produced through specific institutions and material conditions, then those institutions and conditions are also, in principle, transformable. Educational reform that frames ecology in terms of membership and relation rather than resource management; policy that removes the frictionlessness of ecologically harmful behavior rather than simply appealing to individual conscience; scholarship that makes the structural production of ecological subjectivity visible: these are modest but consequential directions that follow from the diagnosis. They are not solutions so much as sites of intervention.

I do not have a clean solution to offer, and I am skeptical of frameworks that do. As I noted in my account of the belief-1/belief-2 gap, I remain implicated in the system I have been critiquing. The ecological subject is not a distant figure. It is a subject position I inhabit regularly, even as I write this paper. What I find more useful than false resolution is clarity about the scale of the problem: ecological crisis is unlikely to be adequately addressed by changing minds alone. It requires changing the conditions under which certain kinds of minds, and certain relationships to the natural world, become possible.

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