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Abstract: The following paper puts the history of race and colonialism in conversation with the history of the concept of energy. The objective is to understand what a critical decolonial perspective can teach us about the central role that energy plays in western culture, materially and epistemologically. I am interested in how this approach to political, epistemological, and ontological questions demands that we reconceptualize energy to account for the historical particularity of the concept and the phenomena of history and intersubjectivity, which are eschewed in a purely materialistic and quantitative conception of energy. We will see how energy has been complicit in the racialization of black and indigenous bodies, and how the privileged place that the concept of energy has occupied in the canon of western physics has served to obscure the theological, metaphysical, and cultural assumptions that constitute it.

Energy and the Figure of 'Man'

In Of Modern Extraction, Terra Rowe shows how modern extractivist practices construct racialized and gendered bodies. She demonstrates the relationship between modern extractivism and the development of the concept of 'energy' from Aristotle's energeia, to Leibniz's vis viva, and finally 'energy,' as it is conceived by 19th century British natural philosophers, which would become decisive for contemporary science and energy cultures. With regard to the genealogy of the concept of 'energy,' she claims that historical conceptions and the modern understanding of energy have "come to define human fulfillment such that gender and racial distinctions have been drawn along lines of energy variance" (Rowe, 2023, p. 30). In the next sentence, and crucially for the argument at hand, Rowe notes that from a "decolonial feminist perspective, exuberant fulfillment has defined what Sylvia Wynter has identified as overrepresented Man" (2023, p. 30). Using Sylvia Wynter's work in "Unsettling the Coloniality of Being/Power/Truth/Freedom will be a useful point of departure for considering the political, epistemological, and ontological repercussions of modern/colonial conceputalizations of energy from a decolonial perspective.

Here, Wynter makes reference to Aníbal Quijano and Walter Mignolo as both identify the racialization of non-white bodies as the founding colonial difference that inaugurated European modernity with the figure of overrepresented Man as its mascot, "which overrepresents itself as if it

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were the human itself" (Wynter, 2003, p. 260). Decisive in the creation of the figure of Man was the elevation of rationality as the sign *par excellence* of the human, displacing nobility and the religious feudal order as the standard for hierarchizing people in Europe. According to Wynter, "[t] o lack rational nature was to be governed by purely sensory nature with the latter defined as the "nature" common to men and animals" (Wynter, 1987, p. 213). This rational nature was denied early on to the "Indians" by scholars such as Juan Sepúlveda in the sixteenth century, turning them into the native ontological Other. Additional categories of ontological Others that Wynter lists are the "poor," "woman," and "negro." The figure of Man is instantiated by an ontology that, while constructing nature in the image of the white, rational, European, Christian male, parades itself as absolute, covering over the fact that it is one perspective among many. To this end, Édouard Glissant argued that when Europeans first projected their colonial project, it was widely held that "geographical discoveries and the conquests of science were driven by the same audacity and the same capacity for generalization. Territorial conquest and scientific discovery (the terms are interchangeable) were reputed to have equal worth" (Glissant, 2010, p. 56). The same impulse that drove colonization also drove the scientific quest for truth, thereby restricting reality to making itself known according to the terms that European colonizers and scientists stipulated for it. As a result, ways of knowing the world that did not conform to western thought's standards were liable to be dismissed as myth or pseudoscience. This discourse has historically justified racism, sexism, colonialism, and, as we will see, violent extractive practices ranging from slavery to fossil fuel extraction.

Overrepresented Man's ontological distinction between rational and non-rational human beings is closely related to a colonial ontology of energy. Referring to the work of Willie James Jennings, Rowe notes that Christianity's historical devaluation of place-based identity in response to Judaism leaves a vacuum where race becomes the new organizing center of identity. This devaluation of place parallels a Christian projection of a deity as "unlimited [power]" (Rowe, 2023, p. 78), which is omnipresent and therefore homogenous across all of nature. The consequence was that

populations whose identities remained tied to and organized by their relation to the particularities of race became seen through the lens of lack. Especially in comparison with the apparent traversing capabilities of whiteness seemingly evidenced in technological navigation triumphs, localized identity emerged as a lack, an inability to extract, an insufficiency of transcendence over the particularities of place to a universalizable organizing structure. (2023, pp. 78-79)

Thus, overrepresented Man's rationality is also his freedom from the subhuman depravity of nature, and those populations that are still tied to place-based identity are seen as subject to the mechanical causality of dead matter, judged from above by the arrogant perception of Man. Hence, black and indigenous bodies are perceived/constructed as enslaved to materiality while Man, extracted from the baseness of mere matter, is endowed with the divine power to enact external force on black and indigenous bodies in order to extract their labor for the advancement of colonization.

Taking a closer look at the European conceptualization of energy, it is no surprise that this state of affairs should have come about. Having been conceived by British physicists in the 19th century in place of Leibniz's concept of vis viva, energy has been broadly defined in physics as the capacity to do work. Innocent enough. However, there is no mention here of racialization, exploitative extractive practices, or any of the other phenomena which were tied to the modern conceptualization of energy. This is merely an appearance. When we take a closer look at the genealogy of the concept, we find that the physicists that conceived of 'energy' in the modern scientific sense were actually very concerned with the economic and political interests of Great Britain. Historian of science Crosbie Smith in The Science of Energy: A Cultural History of Energy Physics in Victorian Britain shows how physicist William Thomson was largely responsible for popularizing the concept of 'energy' within the emerging field of physics in 19th century Great Britain. Smith further shows that Thomson was not simply concerned with taking a purely objective approach towards the formulation of the laws of thermodynamics, both William and his brother James were concerned with minimizing the "waste of useful work and to maximize economy of operation" (Smith, 1998, p. 32). The interest in minimizing the waste of useful work was tied to a desire to develop highperformance engines that would be used to power the British Empire's imperial/capitalistic enterprise. The economic benefits of minimizing waste is pretty straightforward, since minimizing waste is the same as maximizing capital. However, this interest is not simply economic but also moral. Crosbie notes that

'improvement' [minimizing waste] consisted of complementary *economic* and *moral* components. Improvement of progress entailed the maximization of 'useful work' or labour and the minimization of 'waste'... The huge labouring populations could be morally improved through the 'rational amusement' of models and manufacturers exhibitions rather than wasteful amusements of 'injurious description' that might encourage social disorder through drunkenness, debt, and crime. (1998, p. 38)

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Here is an explicit connection between the historical development of the concept of energy and the intention to morally improve human populations. Uncovering the historical construction of the concept also exposes a particular economic and moral logic surrounding energy discourse. When applied to black and indigenous bodies, the outcome is the one we saw above: the perceived 'indolence' of colonized peoples must be corrected by colonists in order to minimize the waste of (sub)human labor by "improving" colonized peoples and extracting their energy and labor power for the improvement of wasteful nature and the progress of European modernity. The logic that is implicit here is characteristic of European colonization, so we will now examine how some decolonial thinkers have uncovered this logic, thereby helping us see how the concept of energy functions in the maintenance of coloniality.

Coloniality and the Colonial Matrix Power

Walter Mignolo, following Aníbal Quijano, describes "coloniality" as "the underlying logic of the foundation and unfolding of Western civilization from the Renaissance to today of which historical colonialisms have been a constitutive, although downplayed, dimension" (Mignolo, 2011, p. 2). At the heart of coloniality is what Mignolo calls the "colonial matrix of power," originally coined as the "patrón colonial de poder" by Quijano. The matrix consists of four interrelated domains: control of the economy. of authority, of racism, gender and sexuality, and the control of knowledge and subjectivity (2011, p. 8). In this context, coloniality is the logic that holds together and thus constitutes the cohesion of the different spheres of the CMP; the latter embodies and reproduces the logic of coloniality. Mignolo describes the logic of coloniality as "the structure of management and control that emerged out of the transformation of the economy in the Atlantic, and the jump in knowledge that took place both in the internal history of Europe and in between Europe and its colonies" (2011, p. 10). Basically, the expansion of western civilization due to Europe's domination of the Americas and other parts of the world has resulted in a globalized system where almost every facet of everyday life, such as the economy, identity, and knowledge, are grounded in and systematically dictated by European cultural, economic, and territorial dominance. From a broad perspective, the colonial matrix of power constrains what can be known, what can be said, who or what counts as a person, what sort of lifestyles one may live, and how identity is felt and experienced. The matrix of power lends itself to the idea that subjects are created and not given, because the way one's reality is constructed—the concepts we use (or, in this case, are given) to "cut up" ourselves and the world—depends

on where one is located within this matrix. Certain categories used to create subjects include race, class, gender and sexuality, and the way one embodies a particular combination of these concepts determines one's experience and the horizon of possibility for their life to a large extent.

To this end, Gloria Anzaldúa's work offers a great example of what we mean by the intersection of knowledge/subjectivity and politics within the CMP. The intersection of these two aspects of colonialism occur in the body, and it is the experience of the lived (colonized) body that Anzaldúa's work in *Borderlands/La Frontera* explores. Anzaldúa looks at the cultural dynamics of border culture along the U.S./Mexico border, demonstrating the connection between a geopolitical border and the "invisible borders" it constructs in the bodies and minds of those who live on either side of it. Anzaldúa explores border culture from her biographical and embodied perspective as a Chicana, lesbian, and Indigenous writer/scholar and weaves a narrative where questions of economy, authority, gender and sexuality, race, and knowledge/subjectivity (the four spheres of the CMP) are intertwined and inseparable in her depiction of border life. For her part, Anzaldúa does not fully identify herself with one side of the border or the other, occupying, instead, a no-place in between borders—perhaps a place outside of or adjacent to the CMP—where different perspectives, incompatible as they may be, can coexist without annihilating each other, what she calls a mestiza consciousness. Rather than raising borders. Anzaldúa is interested in how we can tear down physical and invisible borders, to create narratives of identity that embrace the inherent complexity of the human experience and that do not need to commit epistemic and physical violence to an Other in order to affirm themselves.

Moving forward, thinking of coloniality as Mignolo does leads to the conclusion that the historical development of western ontology and epistemology cannot be divorced from the logic of coloniality and its unfolding, thus constraining the colonial subject's understanding of herself and the possibilities for who she can become within the bounds of coloniality. This also amounts to saying that Western rationality is not simply a "subjective" phenomenon, as it is embodied through individuals, social relations, and institutions: the colonial matrix of power. Hence, one of the tasks of decolonial thought is to investigate how the logic of coloniality is reproduced politically and epistemologically through the CMP and how the evolution of the CMP itself transforms and is transformed by the logic of coloniality and its unfolding, in order to "delink" from it. As Mignolo puts it, "[d]ecolonial thinking strives to delink itself from the imposed dichotomies articulated in the West, namely the knower and the known, the subject and the object, theory and practice" (Mignolo, 2017,

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p. 42). Decolonization is a process where the gap between theory and practice—an outdated western dichotomy—is bridged through praxis, in an attempt to imagine and engender novel forms of being beyond the CMP.

Energy, the Colonial Matrix of Power, and Beyond

Examining the genealogy of energy next to the logic of coloniality and the CMP, it becomes clear that energy discourse is implicated in all four domains of the CMP (we did not analyze the connection between energy discourse and gender/sexuality explicitly in this paper, but we have mentioned above that Rowe makes this connection clear in her work) which embodies coloniality's logic of energy into a structure of control that exploits racialized and gendered bodies in order to solidify the authority of overrepresented Man. The creation of the concept of energy by 19th century physicists for the development of the new science of thermodynamics was inherently tied to British Imperial interests to maximize capital by making navigation and industrial production as efficient as possible. The authority associated with physics as the 'queen of the sciences' made it seem like it was an incontrovertible fact that all of nature was at bottom a store of energy reserves that can be improved and put to work for maximum efficiency, covering over the theological assumptions that inspired this theorization in the first place—the belief in the omnipotence, and therefore unlimited potentia, of a universal deity that guarantees the homogeneity of nature and at the same time the superiority of the Christian (that is, European) race. The displacement of place-based identity leaves a vacuum that is filled by race-based identity. The perceived lack of rationality of indigenous and black bodies (which is really a lack of European rationality) dehumanizes these peoples who are then believed to be inferior and therefore subject to the authority and exploitation of overrepresented Man who squeezes as much labor as possible out of these dehumanized bodies.

From this point of view, it is clear that the way we conceptualize energy has material consequences for questions of racial, gender, and environmental justice. Reconceiving of energy in ways that make these grounding assumptions explicit in order to remedy these injustices and onto-epistemological fallacies is certainly needed. These initial considerations suggest that a purely quantitative/materialistic understanding of the concept of energy is clearly inadequate in accounting for the complexities of history and intersubjectivity. That is, a quantitative understanding of it is limited to extensive phenomena, while qualitative phenomena (such as identity and embodiment) remain unaccounted for and, at worst, framed as epiphenomena. Thinking of energy from a decolonial perspective also demands that we consider the ethical dimensions and consequences of the

ways we conceive of energy, so we don't fall into the same patterns of thought as the figure of Man. To this end, instead of focusing on what energy *is*, as if it were some Platonic idea or transcendental signifier (an assumption that I suspect is unfounded) perhaps it will be more productive to consider *what we are doing* when we conceptualize energy in certain ways rather than others, with an aim towards remedying the injustices that we find in the history of the west's violent exploitation of nature, as well as overcoming the epistemological/ontological violence European rationality has brought upon racialized and gendered human beings.

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