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Erin Kidd*

The Subject of Conceptual Mapping: Theological Anthropology across Brain, Body, and World

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Abstract: Research in conceptual metaphor and conceptual blending—referred to collectively as "conceptual mapping"—identifies human thought as a process of making connections across fields of meaning. Underlying the theory of conceptual mapping is a particular understanding of the mind as embodied. Over the past few decades, researchers in the cognitive sciences have been "putting brain, body, and world back together again." The result is a picture of the human being as one who develops in transaction with her environment, and whose highest forms of intelligence and meaning-making are rooted in the body's movement in the world. Conceptual mapping therefore not only gives us insight into how we think, but also into who we are. This calls for a revolution in theological anthropology. Our spirituality must be understood in light of the fact that we are embodied beings, embedded in our environment, whose identities are both material and discursive. Finally, using the example of white supremacy, I show how this revolution in understanding the human person can be useful for ethical reflection, and in thinking about sin and redemption.

Keywords: Embodied Cognition; Conceptual Mapping; Cognitive Science; Theological Anthropology; The Embodied-Mind Hypothesis; White Supremacy

Recent work in cognitive linguistics has demonstrated the deeply metaphorical character of human language. We not only speak, but also think, in terms of metaphor. In *Metaphors We Live By* George Lakoff and Mark Johnson introduced the world to the idea of conceptual metaphors—the mind's habit of the thinking "one kind of thing in terms of another."[1] Our experience of arguing, for instance, is profoundly shaped by the fact that we think—and even act—as if an argument were a kind of battle. Our language in this case is neither accidental nor superfluous: "She advanced her argument," "He's defensive," and "That was a successful attack" are linguistic manifestations of the deeper conceptual metaphor ARGUMENT IS WAR.

While Lakoff and Johnson's conceptual metaphors are uni-directional—always one things in terms of another—Gilles Fauconnier and Mark Turner have pointed to even more complicated ways in which the mind makes connections. In *The Way We Think*, they describe a process called "conceptual blending" in which the mind combines two disparate domains of thought into a shared blended space.[2] This allows them to identify not just when we think of one thing in terms of another (ARGUMENT IS WAR) but also when drawing a connection between two fields of meaning allows us to think something radically new—Einstein's

1 Lakoff and Johnson, *Metaphors We Live By*, 5.
2 Fauconnier and Turner, *The Way We Think*, 6.

***Corresponding author: Erin Kidd,** St. John's University, Queens, NY, United States of America; E-mail: kidde@stjohns.edu

synthesis of electrodynamics or the early Christian proclamation that Jesus is the Messiah, for instance.[3] In each of these cases the clash between two fields of meaning produces a third, new field of meaning.

Together this research in conceptual metaphor and conceptual blending—referred to collectively as "conceptual mapping"—identifies human thought as a process of making connections across domains of thought.[4] Underlying the theory of conceptual mapping is a particular understanding of the mind as embodied. Over the past few decades, researchers in the cognitive sciences have been "putting brain, body, and world back together again."[5] The result is a picture of the human being as one who develops in transaction with her environment, and whose highest forms of intelligence and meaning-making are rooted in the body's movement in the world. Conceptual mapping therefore not only gives us insight into how we think, but also into who we are.

This work has broad implications for philosophical and theological anthropology—particularly questions concerning the mind/body relationship and the production of the subject. Because the mind's activity occurs not within the confines of the skull but *across* brain, body, and world, any account of the human person must examine the dynamic interaction between them. What is necessary is an embodied and transactional account of the subject, and of both sin and redemption.

The operation of white supremacy in the United States provides an illuminating example of the difference this change of subject makes. Ideologies like white supremacy are difficult to analyze and combat without recognizing how they occur *across* brain, body, and world. Within Christian theological anthropology, such analysis also serves to show how both sin and redemption are both corporal and corporate—transforming the social and embodied subject and the world in which she lives.

1 Putting brain, body, and world together again

As Lakoff and Johnson argue, conceptual metaphors are rooted in our embodied experience of the world. After all, claims about who gained ground in an argument make sense only in light of the physical experience of war, in which success is often measured in the ground occupied by one's army. Complicated conceptual metaphors like these are in turn composed of primary metaphors, which link simple concepts with our most basic interaction with the world.[6] We think of affection in terms of warmth for instance because the two are coextensive in our infancy (AFFECTION IS WARMTH);[7] we think of quantity in terms of height because of our early experience playing with objects (MORE IS UP).[8] As Lakoff and Johnson declare in their second book *Philosophy in the Flesh*, "no metaphor can ever be comprehended, or even represented independently of its experiential basis."[9]

1.1 The embodied-mind hypothesis

Our embodiment does not merely give rise to discrete conceptual metaphors—like flowers dotting a field of otherwise abstract thought—but in fact structures our rationality at the root. As Lakoff and Johnson argue in *Philosophy in the Flesh*, our very way of conceptualizing the world is embodied: "Human concepts are not just reflections of an external reality, but that they are crucially shaped by our bodies and brains, especially

3 The Einstein example is from Gerhart and Russell, *Metaphoric Process*, 136–37. It is Masson who identifies what they call "metaphoric process" as "double-scope blending," and offers the "Jesus is the Messiah" example in *Without Metaphor, No Saving God*, 106-9.

4 For use of "conceptual mapping" to talk about metaphor and blending theories as a whole, see Fauconnier and Turner, "Rethinking Metaphor," 53-66; Masson, *Without Metaphor, No Saving God*, 4-5 and 106-9.

5 This phrase is from the subtitle of Clark, *Being There*.

6 Lakoff and Johnson, *Philosophy in the Flesh*, 45.

7 Ibid., 50.

8 Lakoff and Johnson, *Metaphors We Live By*, 15-16. See also Lakoff and Johnson, *Philosophy in the Flesh*, 54-5.

9 Lakoff and Johnson, *Philosophy in the Flesh*, 19.

by our sensorimotor system."[10] They provide three examples in which the body shapes the mind's concepts.

First they mention the active role our body has in interpreting sensory data and the way that impacts thought. Consider the way we think about color. Color itself does not correspond to anything in the world, but is the result of an interaction between lighting conditions, wavelength frequency, eye structure, and neurology. In addition, what we perceive to be central to a given category—the "red" we can all agree is "red"—is shaped by both the structures of our eyes and our neurology. We have evolved to focus on certain colors more than others and we categorize them accordingly.[11]

Second is the mind's tendency to create what Lakoff and Johnson call "basic-level categories." Basic-level categories are often in the middle of hierarchies. They offer the examples of "chair" in "furniture—chair—rocking chair" and "car" in "vehicle—car—sports car." These middle categories are the ones that the mind is best able to handle. We can picture a chair in our mind if asked, but "furniture" is too vague a category. Go lower in the hierarchy and we will often need expertise in the field to understand the specification (though in this respect, perhaps Lakoff and Johnson could have picked better examples!). As Lakoff and Johnson argue, most of our knowledge is organized around basic-level categories because most of our interaction in the world is with basic-level categories. I deal with the category "vehicles" only in abstraction, but I sit in a car—and I sit in it roughly the same way no matter what kind of car it is, or whether I even know what kind of car it is. In other words, the ability to navigate the world successfully will depend mostly on being able to correctly use basic-level categories.[12] We think on a human scale.

Third is the mind's use of gestalt structures called "image schemata," which are primitive patterns of spatial relations, such as part-whole, center-periphery, near-far.[13] Consider for example the CONTAINER image schemata

> Our bodies are containers that take in air and nutrients and emit wastes. We constantly orient our bodies with respect to containers—rooms, beds, buildings. We spend an inordinate amount of time putting things in and taking things out of containers. We also project abstract containers onto areas in space, as when we understand a swarm of bees as being *in* the garden...These forms of embodiment arise from the way we schematize our own bodies and things we interact with daily.[14]

We develop this schema naturally through our interaction with the world and it enables us to make our way in it.

Image schemata come with their own logic. For example, the CONTAINER schema allows us to reason that: "Given two containers, *A* and *B*, and an object, *X*, if *A* is *in B* and *X* is *in A*, then *X* is *in B*."[15] As Lakoff and Johnson note, we do not need to perform any calculations to do this; it is self-evident based on the logic of containers themselves. Thus these schemata enable us to make our way in the world and to reason about it.

As Johnson clarifies in his solo work, these schemata are non-propositional. In fact, they are best not thought of even as images, but as patterns of interacting with the world.[16] As he defines them in *The Body in the Mind*:

> An image schema is a recurring, dynamic pattern of our perceptual interactions and motor programs that gives coherence and structure to our experience. The VERTICALITY schema, for instance, emerges from our tendency to employ an UP-DOWN orientation in picking out meaningful structures of our experience.[17]

Throughout this work, Johnson traces the process in which our basic movement in the world provides the grounding for our most complicated thought. When learning to walk a person develops the VERTICALITY

10 Lakoff and Johnson, *Philosophy in the Flesh*, 22.
11 Ibid., 23-25.
12 Ibid., 27-8.
13 Ibid., 30-7.
14 Ibid., 36.
15 Ibid., 31.
16 Johnson, *The Body in the Mind*, 21-37; see also Johnson, *The Meaning of the Body*, 136-46.
17 Johnson, preface to *The Body in the Mind*, xiv.

schema, an embodied sense of the X and Y-axis that allows her to keep her balance.[18] The child's sense of verticality will allow her to develop the primary metaphor MORE IS UP as the process of stacking objects in play causes her to link quantity with height. This in turn provides her with the ability to use the GOOD IS UP conceptual metaphor when she says, "You've raised my hopes." Verticality structures each of these levels of human thought, but it is itself not a concept, nor is it reducible to a set of propositions. Even understanding complicated uses of the conceptual metaphor GOOD IS UP, like "the stock market has fallen," depends upon our ability to reason with our bodies. The VERTICALITY schema structures and constrains our thoughts about emotions and the economy. According to Johnson, even our most ostensibly abstract forms of rationality are similarly structured by our embodiment. We have already shown how the container schema can be manipulated to solve set problems. Johnson argues that spatial relations that make up the BALANCE schemata provide us a sense of equality and, therefore, the transitive property.[19] Our reason is therefore structured by our imagination, which itself develops from our bodily interaction with the world.[20]

It is not merely that our thought and language emerges from or is inspired by our embodiment. Our dependence on image schemata demonstrates the profound way in which our being-in-the-world is shaped by our bodies. At a surface level, my use of the conceptual metaphor GOOD IS UP involves thinking one thing (quality) in terms of another (height). But I only have access to the notion of height through my felt sense of verticality—a pattern of being-in-the-world that offers its own non-propositional logic. Ultimately then, I am always thinking in terms of my embodied sense of the world.

In fact, Lakoff and Johnson go even further than this. As they explain in *Philosophy in the Flesh*, abstract thinking is continuous with more basic and automatic cognitive processes. Neurological research has demonstrated that it is at least possible that the same mental structures that allow us to perform sensory-motor operations also make us capable of abstract categorization.[21] For example, the kinds of neural connections involved in what we call thinking are not qualitatively different than the kind of neural connections involved in perception or action. Thus, Lakoff and Johnson speculate that much of what we consider abstract thought is actually processed by the sensory-motor system. In other words, the conceptual metaphor GOOD IS UP not only exploits the logic of our sense of verticality, but hijacks the very sensory-motor system with which we experience it. As they argue, this means that "much of conceptual inference is, therefore, sensorimotor inference."[22] We think in terms of the motion of our body, using the very same system that moves it.

Thus underlying Lakoff and Johnson's work on conceptual metaphor is what they call the "embodied-mind hypothesis":

> The claim that the mind is embodied is, therefore, far more than the simple-minded claim that the body is needed if we are to think. Advocates of the disembodied-mind position agree with *that*. Our claim is, rather, that the very properties of concepts are created as a result of the way the brain and body are structured and the way they function in interpersonal relation and in the physical world.
>
> The embodied-mind hypothesis therefore radically undercuts the *per*ception/*con*ception distinction. In an embodied mind, it is conceivable that the same neural system engaged in *per*ception (or in bodily movement) plays a central role in *con*ception. That is, the very mechanisms responsible for perception, movements, and object manipulation could be responsible for conceptualization and reasoning. Indeed, in recent neural modeling research, models of perceptual mechanisms and motor schemas can actually do *conceptual* work in language learning and reasoning.[23]

If Lakoff and Johnson are right about this, there would be no fundamental difference between cognition on the one hand and perception and action on the other hand.

To understand just how radical this claim is we need to first talk about baseball, dolphins, and robots.

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18 Johnson, *The Meaning of the Body*, 137.
19 Johnson, *The Body in the Mind*, 85-98.
20 Johnson, preface to *The Body in the Mind*, xv.
21 Lakoff and Johnson, *Philosophy in the Flesh*, 17-19.
22 Ibid., 20.
23 Ibid., 37-8.

1.2 A revolution in human, animal, and artificial intelligence

Until the 1980s, the disciplines of linguistics, computer science, neuroscience, and robotics largely operated within a cognitivist perspective. As Michael Anderson defines it, "cognitivism is the hypothesis that the central functions of mind—of thinking—can be accounted for in terms of the manipulation of symbols according to explicit rules. Cognitivism has, in turn, three elements of note: representation, formalism, and rule-based transformation."[24] In other words, it treats all human thinking much like the abstraction in formal logic or mathematics. 3 + 3 = 6 regardless of whether we are speaking of apples and oranges. Cognitivism presumes that all thinking operates in a similar manner, by applying universal rules to a formal representation of the problem.[25] Note that the particular material of a problem—whether we are counting apples or oranges—is seen as entirely irrelevant. So is the materiality of our counter herself. This account of thinking has no need to appeal to the human body, other than as a source of sensory data for the mind. There is nothing distinctly human about this thinking; rationality is seen to be so precisely because it is universal.

From a cognitivist perspective, the development of artificial intelligence merely required one to translate human thought into sufficiently complicated lines of code. Indeed, since the human mind was already seen to be a computer—a central processor receiving perceptual data from the body and executing commands—all that stood in the way of genuine artificial intelligence was the development of computer power adequate to the complexity of human thought.

But under this rubric the development of artificial intelligence plateaued.[26] Ironically, scientists were able to build a computer who could beat human beings in chess, but not one that could easily accomplish tasks like facial recognition or opening a door. The model of an inner mind performing symbolic calculations works well for very narrow tasks like chess, but fails with respect to the larger project of human being-in-the-world.

Andy Clark describes a similar problem in marine biology. For a long time researchers could not explain why certain fishes were capable of their speed. The dolphin, for example, does not have the strength to propel itself to the speeds it reaches. The answer lies not in the fish itself, but in its relationship with its environment: "the extraordinary swimming efficiency of certain fishes is due to an evolved capacity to exploit and create additional sources of kinetic energy in the watery environment. Such fishes, it seems, exploit aquatic swirls, eddies, and vortices to "turbocharge" propulsion and aid maneuverability."[27] In fact, these fishes can create such vortices with a flap of their tails. The fishes' speed is not a factor of the fishes' strength, but a product of their interaction with water. Their "strength" in this case is its ability to control and exploit the dynamics of under-ocean currents. The initial failure to understand the fishes' speed is due to the assumption that the fishes could be understood apart from their environment.

In a similar way, the failure to develop artificial intelligence is a product of assuming that human intelligence can be understood in isolation from the human body and the environment. Diagnosing the problem in 1997, Clark writes that despite the fact that cognitive science is itself "a loose coalition of sciences of the mind whose common goal is to understand how thought itself is materially possible," the prevalence of the computer model of the mind is evidence that a Cartesian opposition between matter and mind still haunts it.[28] Our intelligence however is a product of the dynamic interaction between brain, body and world—not something that can be isolated on its own.

Consider for instance the ability for an outfielder to catch a long drive to left field. Under the mind-as-computer model, one would assume that the ballplayer is making mental calculations and then deciding where to run and when and how to extend her arms.[29] A robot capable of the same activity would need to

24 Anderson, "Embodied Cognition," 93.
25 Ibid., 93-4.
26 Clark, *Being There*, 1.
27 Ibid., 219.
28 Clark, preface to *Being There*, xii; see also Anderson, 92-3 on the claim of the Cartesian presuppositions of early cognitive science.
29 Clark, *Being There*, 27-9.

1) perceive the ball through its sensory system, 2) perform calculation on a symbolic representation of the ball and its trajectory and 3) execute an order to its motion system.

But in fact, studies show that the answer is much simpler: an outfielder catches a ball by running toward it. Of course this description is too simple—there are in fact two ways, depending on the outfielders relationship to the ball: either she runs along the path of the ball adjusting her speed so that the ball appears to have a constant velocity, or she runs laterally so that it looks like the ball is moving in a straight line.[30] The point is that there is no need to represent the situation in the mind or to perform operations. The thinking is done on the field itself in the real-time interaction between the outfielder's running and her sight. She is doing the calculations with her feet. This trick is not a matter of the brain's computing power, but of a dynamic interaction between body and world. We need not teach a robot to calculate trajectories. In fact, the robot may need no processor at all, only a set of interacting rules linking perception and action—in this case, eye and foot.

As Clark argues, the failure to replicate human intelligence is rooted in the simple fact that,

> We simply misconstrued the nature of intelligence itself. We imagined mind as a kind of logical reasoning device coupled with a store of explicit data—a kind of combination logic machine and filing cabinet. In so doing, we ignored the fact that minds evolved to make things happen. We ignored the fact that the biological mind is, first and foremost, an organ for controlling the biological body. Minds make motions, and they must make them fast—before the predator catches you, or before your prey gets away from you. Minds are *not* disembodied logical reasoning devices.[31]

The kinds of computing that are difficult and costly for us to build in robots (the ability to quickly calculate a trajectory, execute a running sequence, and correct for error) parallels the kind of mental computing that would be inefficient for us, as well. In the context of catching a ball, trajectory calculations are a bottleneck best bypassed.[32]

In other words, we have evolved to live in the world, not sit and think about it. Our mind prioritizes quick and dynamic thinking rather than long, careful, computing, because this is the kind of thinking that moves us safely and securely in the world. Such thinking often depends on coupling between perception and action, using the environment itself as a resource for problem-solving.[33]

Indeed, recent success in robotics has demonstrated the potential of robots who have no central control system, but whose behavior emerges from the interactions of a number of simple rules. Rodney Brooks for example has had incredible success using what he calls "behavior-based robotics"—robots that have no processor mediating between perception and action.[34] Describing Brooks' robots, Clark writes: "There is no clear dividing line between perception and cognition, no point at which perceptual inputs are translated into a central code to be shared by various onboard reasoning devices."[35] Largely due to the work of Brooks and Hubert Dreyfus, work in artificial intelligence has mostly forsaken cognitivism in favor of embodied and situated cognition.[36]

As Clark argues, much of what we consider to be human intelligence may in fact be based on "environment-specific tricks" like the outfielder or Brooks' robots make use of.[37] Even our most advanced—and seemingly abstract—forms of thinking depend on what he calls "designer environments."[38] As an example he mentions his own writing process that depends on the organization of his desk and computer desktop, the ordering of notes in files, the piling of books in particular places.[39] In addition to these physical and digital ways of organizing the world around us, language itself serves as an even larger scaffolding for human thought.[40]

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30 Wilson and Golanka, "Embodied Cognition Is Not What You Think It Is," 5-6.
31 Clark, *Being There*, 1.
32 Ibid., 21.
33 Ibid., 7.
34 Brooks, *Cambrian Intelligence*.
35 Clark, *Being There*, 14.
36 Anderson, "Embodied Cognition," 95.
37 Clark, *Being There*, 33.
38 Ibid., 191.
39 Ibid., 206-7.
40 Ibid., 214.

Even philosophical reflection, then, cannot be adequately understood under the cognitivist model of the mind as a computer: "Advanced reason is thus above all the realm of the *scaffolded* brain: the brain in its bodily context, interacting with a complex world of physical and social structures."[41] Our brains are only one, albeit important, part of a larger system that includes our wider environment; our thought may more accurately be described as occurring across this system rather than simply in our head. As Clark argues, this requires too that we reconceive how we think of the boundedness of the self.[42]

To sum up this insight, much more of human intelligence than was previously thought can only be understood as a dynamic interaction between the body and the world. Our minds evolved to navigate the body in the world. We can therefore understand human being only by "putting brain, body, and world together again."

1.3 The theory of embodied cognition

What I have described above is the shift between a classical cognitivist view of the mind and embodied cognition. As Michael Anderson defines it, embodied cognition recognizes that:

> ... most real-world thinking occurs in very particular (and often very complex) environments, is employed for very practical ends, and exploits the possibility of interaction with and manipulation of external props. It thereby foregrounds the fact that cognition is a highly *embodied* or *situated activity*—emphasis intentionally on all three—and suggests that thinking beings ought therefore be considered first and foremost as acting beings."[43]

If this theory of embodied cognition is correct, any understanding of human thought that does not take into consideration human movement and perception fundamentally misunderstands the nature of human meaning-making.

The term has become something of a buzzword in recent years and there is debate over what, precisely, counts as being consistent with the theory. In particular, there is concern over whether or not the theory allows for mental representation at all, and if so, what its relationship to the rest of the brain's activity is.

In grounding abstract thought in the sensory-motor system, Lakoff, and Johnson are aligning themselves with what is sometimes called the "strong" or "radical embodied hypothesis" or "radical embodiment." This theory posits that all human thought can be understood in terms of the sensory-motor system.[44] As Clark describes it, the thesis of radical embodied cognition is: "Structured, symbolic, representational, and computational views of cognition are mistaken. Embodied cognition is best studied by means of noncomputational and nonrepresentational ideas and explanatory schemes."[45] In other words, the radical embodied cognition hypothesis imagines human intelligence as non-representational and non-propositional, more akin to the outfielder catching a ball than a computer processor.

In an article co-authored with Vittorio Gallese, Lakoff refines this thesis to argue that "imagining and doing use a shared neural substrate."[46] As they explain, when one thinks about a certain activity—such as holding a glass—one activates the same part of the brain as when one actually engages in the activity. In a process called "neural exploitation" the brain makes use of sensory-motor connections to perform abstract thought. Thus Gallese and Lakoff argue that all understanding is rooted in the imagination—in this example, our concept of *grasping* is dependent on "our ability to imagine, perform, and perceive *grasping*."[47] Drawing on a number of experiments on humans and monkeys, they argue that the neural

41 Ibid., 191.
42 Ibid., 216-7.
43 Anderson, "Embodied Cognition," 91.
44 See for example Clark, "An Embodied Cognitive Science," 348-9 and Mahon and Caramazza, "A Critical Look at the Embodied Cognition Hypothesis and a New Proposal for Grounding Conceptual Content," 59-70.
45 Clark, *Being There*, 148.
46 Gallese and Lakoff, "The Brain's Concepts," 456.
47 Ibid.

clusters that enable action and perception are also capable of inference and other abstract thought. Our ability to make meaning is a process of what Gallese and Lakoff call "mental simulation" of our acting and perceiving.[48] This embodied neural theory of concepts means that "the same circuitry that can move the body and structure perceptions also structures abstract thought."[49] Embodied cognition makes sense of studies that show simulation prompts thought—for example, when smiling leads test subjects to rate a cartoon as funnier.[50]

This work has been contested by many, including Bradford Mahon and Alfonso Caramazza, who argue that the empirical evidence could equally suggest an understanding of cognition in which representative or symbolic thought occurs separately from, but makes use of, sensory-motor operations. They suggest instead a weaker form of the embodied cognition hypothesis, in which abstract though is understood to interact with the sensory-motor system.[51] Michael Anderson too, wonders if researchers in embodied cognition state the case against representation too strongly. According to Anderson, it is not that the mind never employs representation, but that it is so costly that we must use it rather selectively and in conjunction with "'lower' faculties."[52]

It should be noted that even in this weak theory of embodied cognition, substantial interplay exists between abstract thought and sensory-motor control. Thus, while there is debate over the nature of the causal relationship between the two, the empirical evidence does not support an understanding of abstract thought as independent of the sensory-motor system.

As philosopher Andy Clark has shown, at the very least the mind makes use of the sensory-motor system, and indeed, even of motion itself, such as when one solves a math problem by jotting out figures on a piece of paper. Cognition occurs across a realm of domains—what is traditionally thought of as "abstract" and "symbolic" on the one hand, and "physical" and "material" on the other.[53] Thus Clark, who is agnostic regarding the strong embodied hypothesis, argues that the current data refutes any understanding of the mind as a computer which takes input through the body, processes it, and then produces output again through the body.[54] Clark prefers what he refers to as an ecumenical approach, in which cognitive scientists make use of the tools of both representation and dynamic systems theories to understand the human mind.[55]

For Clark, the relevant shift is from thinking of the brain as a computer—whose job is to perform calculations on symbols that represent the outside world—to the controller of a body. This explains how the mind exploits both embodiment and environment, why its solutions prioritize real-time responses rather than accuracy. In other words, even the mind's most representational thinking emerges from the movement of the body in the world and therefore even the most computational and representational activities of the mind cannot be understood apart from the embodied embedded agent it controls.[56]

Whether or not Lakoff and Johnson are correct in their strong embodied hypothesis, their ultimate takeaway stands: it is wrong to imagine oneself as an inner subject, who is fed sensory information by the body and acts upon it from some free disembodied vantage using symbolic logic. According to Lakoff and Johnson, it is only the legacy of faculty psychology that would have us think this latter activity belongs to an entirely separate type of being than the others. Rather, the brain is the locus of "reason, perception, and movement."[57] Recognizing the fundamental unity of these activities of the brain challenges any understanding of the body as irrelevant to understanding human language and thought.

As Lakoff and Johnson argue in *Philosophy in the Flesh*, significant metaphysical, epistemological, and moral implications follow. Consider the three ways they mention that concepts are embodied—in the

48 Ibid., 458.
49 Ibid., 471.
50 Lueng et al., "Embodied Cultural Cognition," 593.
51 Mahon and Caramazza, "A Critical Look at the Embodied Cognition Hypothesis", 67-70.
52 Anderson, "Embodied Cognition," 100.
53 Clark, "An Embodied Cognitive Science," 349-50.
54 Ibid., 346.
55 Clark, *Being There*, 143.
56 Ibid., 154.
57 Lakoff and Johnson, *Philosophy in the Flesh*, 20.

evolution of what sensory data our neurology focuses on; in the scaling of categories to human-size; and in the use of image schemata to reason. We do not perceive the world as it is, but in terms of what contributes to our success in navigating it. There are no colors, or categories, in the world. A correspondence theory of truth is simply not adequate to describe the relationship between the world and how we think and talk about it. Neither is a belief that our categories map onto some metaphysical reality.[58] Likewise, they argue that morality is always morality *for us*—that is grounded in our embodied understanding of well-being rather than in abstract rights and principles that exist in their own right. For Lakoff and Johnson, this lack of objectivity does not mean that we are fundamentally separated from the world, but that we are always interacting with in terms that optimize our success in it. Thus they offer an "embodied realism" grounded not on correspondence, but in interaction: "as embodied, imaginative creatures, *we never were separated or divorced from reality in the first place*."[59]

Consider how far away this is from the cognitivist picture of the mind described above, which dominated the early waves of computer science, linguistics, and artificial intelligence. Even if Lakoff and Johnson are only partially right, the structures of our thoughts—the very logic by which they operate—are dependent not only on the body, but also its movement in the world. In many situations the relevant unit of cognitive analysis will be a dynamic system composed of "brain, body, and world."

While Clark and Anderson think that Lakoff and Johnson state the case against representation too strongly, Andrew Wilson and Sabrina Golanka argue that they are not even radical enough to go by the name "embodied cognition" at all. They note for instance that all the work is still "done in the head."[60] Lakoff and Johnson show how the body is in the mind; but they do not focus on the actual real-time thinking occurring across brain, body, and world. Wilson and Golonka argue that a truly embodied theory of language would treat language-use as a similar kind of problem as the outfielder problem, and therefore investigate perception-action couplings that enable us to use language successfully in the world (i.e., to engage with interlocuters), rather than a higher-order function that merely emerges from and exploits our sensory-motor faculties.[61]

While Wilson and Golanka are in the minority in how narrowly they define embodied cognition, and the optimism they have for a purely non-representational cognition, they do highlight an important way in which Lakoff and Johnson's work should be supplemented. Johnson, for example, admits in *The Body in the Mind* that his understanding of the body is thin: "In this book, then, the term "body" is used as a generic term for the embodied origins of imaginative structures of understanding, such as image schemata and their metaphorical elaboration."[62] His focus is not on the body as such but the way in which it populates the imagination, which in turn structures our understanding of the world. Lakoff and Johnson's focus on what is going on "in the head"—even as they show its relationship to the body—could be better connected with a broader sense of the way in which thinking occurs *across* brain, body, and world.

1.4 Transactional bodying

The answer to how to join Lakoff and Johnson's work with a more robust understanding of the body in the world may lie in the very tradition of pragmatism they are indebted to, particularly Dewey's concept of "transaction." In their acknowledgements to *Philosophy in the Flesh*, Lakoff and Johnson name John Dewey as one who "understood the full richness, complexity, and philosophical importance of bodily experience" and one of the models of "empirically responsible philosophers."[63] Johnson further explains his indebtedness to American pragmatism in *The Meaning of the Body*, where he argues that his understanding

58 Ibid., 25.
59 Ibid., 93.
60 Wilson and Golanka, "Embodied Cognition Is Not What You Think It Is," 11.
61 Ibid., 8-10.
62 Johnson, preface to *Body in the Mind*, xv.
63 Lakoff and Johnson, *Philosophy in the Flesh*, 4.

that cognition is embodied "has its roots partly in American pragmatist philosophy, and it is being supported and extended by recent work in second-generation cognitive science."[64] According to Johnson, the embodied mind hypothesis shares with pragmatism

> (1) a profound, non reductionist respect for the richness, depth, and complexity of human experience and cognition; (2) an evolutionary perspective that appreciates the role of dynamic change in all development (as opposed to fixity and finality); (3) a commitment to the embodiment of meaning, tied to the continuity of body and mind; and (4) recognition that human cognition and creativity arise in response to problematic situations that involve values, interests, and social interactions... Pragmatists thus have an embodied cognition perspective, and they argue that all of our traditional metaphysical and epistemological dualisms (e.g. mind/body, inner/outer, subject/object, concept/percept, reason/emotion, knowledge/imagination, and theory/practice) do not mark irreducible ontological distinctions but are merely abstractions from the continuous interactive (enactive) process that is experience.[65]

In speaking of the way in which human meaning-making emerges in transaction with the environment, Lakoff and Johnson most often uses the word "interaction" or "interactionist." As Johnson explains however, this word is equivalent to John Dewey's understanding of "transaction."[66] Dewey uses the word "transaction" to speak of the way in which organisms develop in relationship to their environment. Feminist philosopher Shannon Sullivan has employed this concept to develop an understanding of the body—one that, she notes, complements Johnson's.[67] In her interpretation of Dewey, she writes:

> The term 'transaction' reflects a rejection of sharp dualisms between subject and object, and self and world, as well as a rejection of the atomistic, compartmentalized conceptions of the subject and self that often accompany such dualisms. The boundaries that delimit individual entities are permeable, not fixed, which means that organisms and their various environments—social, cultural, and political as well as physical—are constituted by their mutual influence and impact on one another...Thus "transaction" designates a process of mutual constitution that entails mutual transformation, including the possibility of significant change.[68]

The word "transaction" thus signifies a process in which the subject and her world are mutually co-constitutive. Indeed, the process of transaction means that the division between these two categories is not clear: "To think of bodies as transactional... is to realize that bodies do not stop at the edges of their skins and are not contained neatly and sharply within them."[69]

But for Dewey it is the body as a whole—not just the mind—that develops in transaction with the world. For Dewey mind and body are not two separate substances, but two activities of the same complex organism. He therefore offers the language of "body-mind" to express this unity:

> In the hyphenated phrase body-mind, 'body' designates the continued and conserved, the registered and cumulative operation of factors continuous with the rest of nature, inanimate as well as animate; while 'mind' designates the characters and consequences which are differential, indicative of features which emerge when 'body' is engaged in a wider more complex and interdependent situation.[70]

In referring to the human person, Dewey thus uses the phrase "body-mind" or "organism" in order to avoid any dualistic account of the self. As Shannon Sullivan interprets him, "both terms designate bodies as transactional, that is, as constituted by and constitutive of their various environments, mental, social, cultural, and political, as well as physical and natural."[71]

Including a pragmatist account of transaction in our study of the embodied mind therefore directs our attention to how habits of the body develop in transaction with our world. Together with an understanding

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64 Johnson, *The Meaning of the Body*, 153.
65 Ibid., 153-4.
66 Johnson, *The Meaning of the Body*, footnote 2, 118.
67 Ibid., footnote 40 on 173.
68 Sullivan, *Living Across and Through Skins*, 1.
69 Ibid.
70 Dewey, *Experience and Nature*, 217.
71 Sullivan, *Living Across and Through Skins*, 24.

of the embodied mind, this research provides an account of the entire subject who is constituted by her broader transaction with the world, and whose intelligence functions across brain, body, and world.

2 The embodied mind and theological anthropology

Theological reflection on the embodied mind has so far mostly focused on its impact on how we understand human meaning-making, particularly God-talk.[72] However, this research is also theologically significant for understanding who we are as human beings. What does a theological anthropology that puts brain, body, and world back together again look like? What follows is a brief sketch of the basic elements of an embodied theological anthropology, and how this framework illuminates a contemporary moral problem like white supremacy in the United States.

2.1 Elements of an embodied theological anthropology

First, an embodied theological anthropology avoids conceptualizing the body/mind relationship as the mind floating over or operating within the body. Recognizing that complicated meaning-making is an activity not qualitatively different than the body's other transactions with the world (like sensory perception or locomotion) pushes us away from any dualistic accounts of the self and into a recognition of unified human being-in-the-world.[73] This understanding of the human person makes the body primary in a way that is not reductive. Lakoff and Johnson are not reducing the self to physical transactions with the world, but showing how meaning-making emerges from such transaction. Their focus on the body does not neglect the subject's emotional, aesthetic, or social dimension—in fact, their understanding of meaning-making as embodied show how these higher-order aspects of human existence are grounded in the very structures of the human body.

Our spirituality too is therefore embodied. This understanding of the relationship between brain, body, and world highlights just how and why rituals are so important. They are not merely expressions of belief nor superfluous action, but are themselves ways of making meaning. We think by moving in the world. Sacred spaces, practices, and relics offer scaffolding for our theological reflection. Talking about the subject as primarily embodied directs our attention to the concrete experiences of lived bodies—to those who suffer and struggle for justice.

Embodiment places us in relationship to the world. As Lakoff and Johnson argue in *Philosophy in the Flesh*, some of our most basic metaphors are defined by empathy—when, for example, we reason "If I were you…" Indeed the presence of mirror neurons—which are activated by both observing and performing an activity—point to a deep way in which our bodies connect us to others. In his Gifford lectures, Lakoff argues that this empathic structure of the mind calls forth a way of life:

> a commitment to nurturant morality, that is, a commitment to empathy and responsibility. That includes a commitment to a practice, a quite demanding practice of rigorous thought, finding out about and trying to comprehend the world, meditation, exploration of self and others, appreciation, connection, giving, and experiencing fully the wonders of your own mind and body and the wonders of the Other—all kinds of Other.[74]

Johnson writes in *The Meaning of the Body* that putting the mind in the body calls forth an understanding of *horizontal transcendence*—"our ability both to transform experience and to be transformed ourselves by something that transcends us: the whole, ongoing, ever-developing natural process of which we are a part."[75]

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72 See for example Masson, *Without Metaphor, No Saving God* and Sanders, *Theology in the Flesh*.

73 In thinking about the benefits of a transactional account of the self I am indebted to Shannon Sullivan's retrieval of Dewey's understanding of transaction in *Living Across and Through Skins*.

74 Lakoff, *The Embodied Mind*, 103-4.

75 Johnson, *The Meaning of the Body*, 14.

As Lakoff and Johnson argue in *Philosophy in the Flesh*, horizontal transcendence extends not merely to human others but to the environment as a whole. Our heart soars when we see an Eagle soaring. Lakoff and Johnson see in this kind of imaginative, empathic projection the resources for a spirituality that deepens our understanding of ourselves as already being in relationship with the world: "The environment is not an 'other' to us. It is not a collection of things that we encounter. Rather, it is part of our being. It is the locus of our existence and identity. We cannot and do not exist apart from it."[76] This relationship entails responsibility. Lakoff and Johnson argue that, "embodied spirituality is more than spiritual experience. It is an ethical relationship to the physical world."[77]

Therefore the second element of an embodied theological anthropology is recognition of the subject's relationship to her environment. This account of the human being rejects an understanding of the subject as standing over against her environment, but deepens our awareness of human being as a part of creation. As we have seen, complex meaning-making develops as a result of human transaction with the world. We are fundamentally constituted by our engagement with the other, and it is only through such transaction that we develop the capacity for abstract thought. What this theory of embodied mind points us to is the development of the self in transaction with other beings and the environment as a whole. Cognitive science entails a turn to the subject that does not end at the subject.

Since she is capable of making meaning with respect to this environment however, neither does this understanding of the subject collapse her onto the environment. While, our environments shape the most primary elements of meaning-making, we are not blank slates who only passively receive an imprinting from without. The unpredictability of complex blending demonstrates that human meaning-making is not determined, but involves a free creativity.[78] What Johnson refers to as the "felt sense" indicates a fundamental agency and interiority on the part of a subject's movement in the world.

The third element of an embodied theological anthropology is recognition of the constitutive role of culture upon the subject. Embodied cognition allows us to stress both the universality of experience—given the structure of the brain and our common needs for food and shelter—as well as its historicity and cultural variability.[79] Subjects who develop in transaction with different environments, including different cultural traditions, will naturally inherit and develop different metaphors and blends that enable them to interact in their world. Consider the metaphor TIME IS MONEY, which allows us to think of time as something that can be saved, spent, wasted, or lost. As Lakoff and Johnson argue, this is not universal, but appears to be localized to industrial cultures.[80]

Because image schemata largely develop as a result of our basic movement in the world, they are largely culturally-independent. All bipedal mammals will need to develop the set of balance schemata for instance, as well as a sense of front and back. However, our use of these image schemata to reason can vary extraordinarily across culture. Lakoff and Johnson refer for instance to the cultural difference between conceiving the future as *ahead*—in which case one is imagining life as a journey—and the future as *behind*—insofar as you cannot see it.[81] A 2010 study showed that those who conceive of the future as *ahead* will naturally think of the future when they move forward, and will recall memories when moving backwards. In other words, we do not merely conceive of the future as *ahead* or speak of it as such, we actually hijack our felt sense of front and back to reason. Mandarin speakers, who conceive of the future as *up*, answered questions about temporal sequence (e.g., "September comes before December") more quickly when the information was encoded vertically rather than horizontally.[82] Thus this research allows us to speak of the way in which cultural differences are embodied.

In response to such research, Angela Lueng and her colleagues have developed the concept of embodied *cultural* cognition. They argue that embodied cognition should be situated in socio-cultural context: in their

76 Lakoff and Johnson, *Philosophy in the Flesh*, 566.
77 Ibid.
78 Masson makes a similar point in *Without Metaphor, No Saving God*, 117.
79 Lakoff and Johnson, *Metaphors We Live By*, 14-9, 22-5.
80 Ibid., Chapter 24.
81 Lakoff and Johnson, *Philosophy in the Flesh*, 139-44.
82 Lueng et al., "Embodied Cultural Cognition," 598.

words, "the intimate link between body and its associated mental representations is not random, but can be informed by cultural norms, values, and habits in a given context."[83] If cognitive linguistics offers, in general, a way to analyze the mechanisms of metaphorical thinking, embodied cultural cognition points to the variance of these processes across and within cultures.

Perhaps the most interesting research regards differences within cultures, particularly since they highlight the variety occurring within the same cultural scaffolding. For example, experiments in the U.S. indicate a closed fist has very gender-specific connotations. Men associate it with anger, women with desperation. These researchers hypothesize that the generalized power differential between men and women means that most men read physical aggression as active and assertive, while women tend to read it as defensive.[84] Their research indicates that cultural norms contribute to the habituation of certain forms of bodily and mental states. In fact, their understanding of embodied cognition looks at the interaction between culture, person, and situation—an approach they abbreviate "CuPS." Such norms can vary across multiple intersecting identities.

Consider how this research might illuminate the intersection between identity and ritual. I suspect that the felt experience of postures of submission and passivity—like kneeling or receiving the Eucharist—may, like the closed fist, differ drastically across gender identity. In many churches, the ordained priesthood is limited to men. Such liturgies become gendered in particular ways—the priest celebrating the Eucharist evokes a father at a dinner table, blessing the food and breaking the bread. The congregation calls him "Father," often viewing this scene from below. Meanwhile the language of "Father" is used for God in the creed—indeed, the metaphor offers the rational for how the first and second persons relate. The sum of these rituals scaffolds the conceptual metaphor Father is God. Whether rituals of submission to such a God are experienced as liberating or terrifying will be influenced by one's broader, embodied experience of gender in the world.

The first element drew our attention to rituals as examples of meaning-making themselves; the second to how we are constituted through such interaction with the world; this third element highlights the role of culture in shaping how an individual will understand a given practice. One's culture and social location cannot be left at the door. Pastoral care and liturgical direction demand attention to this interaction.

Finally, because this understanding of the cultural production of subjects does not lack attention to the materiality of bodies—but even demonstrates how that materiality is constituted in part by one's physical, including social, environment—it offers a way forward in debates about the construction of the body. Early in her career Judith Butler identifies what she calls "the paradox of bodily inscription" implicit in Michel Foucault's claim that the body is constructed. While at face value it is a claim that subjects are produced by power, the language unhelpfully suggests that there is something that exists before construction.[85] According to Butler however, it is only at the other end of the process of construction that one can speak meaningfully of definite, individual bodies. The body is not something that construction is done to, but is the product of construction.[86] The paradox is not unique to Foucault, but one that has plagued feminist thought for decades. Does a pre or non-discursive body exist? The question has moral and political implications, if feminists want to theorize not only about how subjects are constructed, but also how such construction can be harmful (insofar as "harm" appears to assume a given subject prior to construction) and be resisted (insofar as there could be any self to counter the construction). But embodied cultural cognition allows us to speak of the body as material and discursive all the way down.

In investigating this question, Sullivan uses the word "discursive" to refer to a broad sense of discourse as "the entire interlocking web of cultural, societal, and other meanings, most of which are contained not in speech or grammar, but in institutions, buildings, habits, etc."[87] We are not talking merely about linguistic construction, but the entire social world in which persons exist. To ask whether or not a pre or

83 Ibid., 592.
84 Ibid., 600-4.
85 Butler, "Foucault and the Paradox of Bodily Inscription," 601.
86 Ibid., 602.
87 Sullivan, *Living Across and Through Skins*, 42.

non-discursive body exists is thus to ask whether or not the human person exists in a meaningful way apart from such institutions: "The heart of the matter is the more substantial issue of whether there is anything bodily, material, or natural to be found apart or outside of the wide range of discursive formations."[88]

While often feminists theorists have focused on either the materiality or the discursivity of the body, according to Sullivan, thinking of bodies as transactional allows for a third way, in which "the importance of both recognizing the discursivity of bodies and attending to lived bodily experience can be acknowledged."[89] That is, the concept of transaction does not make one choose between the materiality of the body and the productive value of discourses. Rather, in a transactional understanding of the body, the body holds a primary position while being understood to have been shaped—even materially so—by the world in which it transacts.

Sullivan provides the example of walking in high heels. Such a habit does not merely involve putting on high heels in the morning. To walk in them well, one must develop particular core and leg muscles, as well as adjust one's posture in order to maintain balance. These are not merely skills, but the rearrangement of one's skeletal and muscular structure—so much in fact that there are many health risks related to walking in high heels. Our habits are embodied. Thus even for what at first appears to be costume—walking in high heels—is something that affects our material existence to the core. The style of one's life is not a thin "veneer."[90] We could add to Sullivan's analysis that such a habit is itself culturally variable. The semiotics of walking in high heels and its corollary with any given gender identity is a product of a specific social system. Gender identities (and many other kinds of identities) are real not because they correspond to a permanent metaphysical essence, but because they describe the way in which bodies transact with the world.

Together these four elements provide an account of an embodied subject spanning brain, body and world. Such an embodied theological anthropology allows us to better understand both sin and redemption. Thinking of sin in terms of habits of mind and body, developed in transaction with the world, directs our attention to the way in which sin is both social and embodied. By the time I am conscious I have already developed habits in transaction with the world in which I live. If such a world is sexist and white supremacist, then these values have likely replicated themselves in the habits of my body and mind. I may consciously reject the ethics and social mores of a previous age while reproducing them in my daily life. A given social world will reproduce different habits. So then, while sin affects us all, the nature of our concupiscence will be affected by the world in which we are formed.

Redemption too must therefore be social and embodied. In speaking of redemption in Christ, the 20th-century Catholic theologian Karl Rahner argues, "it took place, and could only take place, in this entirely concrete, bloody reality, given over to death. The place where this love and obedience are to be found is therefore this bodily existence, if love and obedience are what they are intended to be—i.e. redemptive."[91] In Rahner's theology, Christ actualizes his "yes" to both God and humanity in the material of the world. His love and obedience become redemptive in "concrete, bloody reality." Likewise our love and obedience to God must be materialized in "this bodily existence." An embodied and transactional perspective helps us understand just how this materialization happens. Growth in Christian discipleship and the grace of God entails interrogating one's habits—how they have developed in transaction with a sinful world and how they might, if necessary, be changed. Likewise, conversions of the heart must be actualized in the quotidian habits of one's life.

To demonstrate just how significant the shift to an embodied theological anthropology is, and how it might illuminate Christian understandings of both sin and redemption, I offer the operation of white supremacy in the United States as a test case.

88 Ibid.
89 Ibid., 8.
90 Ibid., 91-3.
91 Rahner, "The Body in the Order of Salvation", 76.

2.2 A test case: Thinking about white supremacy

Let us begin by comparing the difference between a cognitivist perspective and an embodied/transactional one in thinking about white supremacy in the United States. From the standpoint of classical cognitivism, white supremacy would be a belief held by the mind and expressed in action. But an embodied/transactional perspective invites us to examine how something like white supremacy occurs across brain, body, and world.

Consider an example Sullivan mentions in her book *Revealing Whiteness*. Growing up in West Texas, she recalls white people referred to Mexican-Americans, Chicano/as and other Latino/a Americans all as "Mexican"—when they weren't using a racial slur. Sullivan recalls in particular the sound of her grandmother hissing the word "Mexican" as if it were a slur. As a result, Sullivan herself cannot use the word without wincing: "As an adult, I have trouble hearing or saying the word "Mexican" without anxiety because it sounds like a racial slur to me, and I do not seem able to discard that auditory habit."[92] The problem here is not a lack of education or good will—Sullivan knows "Mexican" is not a bad word, and she does not actively think poorly of Mexicans (or those labeled incorrectly as "Mexican"). But the associations she has with the word are so strong that even to this day she has an intense, embodied, reaction to it.

For Sullivan this is an example of how habits—quite against our will—can be formed in transaction with a racist world. But embodied cultural cognition can help us flesh this out even further. Facial expressions actually have a causal affect on our thoughts and emotions—recall the example above where smiling affects how funny one finds a cartoon. Thus the habit Sullivan identifies—hissing the word "Mexican"—is not merely a tic, but may be capable of prompting the speaker to bias. The transmission of this hiss becomes, in Clark's language, scaffolding for anti-Latinx racism.

Consider George Yancy's reflections on being the recipient of such embodied racism. At the beginning of his 2008 *Black Bodies, White Gazes*, Yancy recounts being alone in an elevator with a white women, whose nervous behavior belies her deep anxiety over being alone with him, a black man. Yancey writes, "Over and above how my body is clothed [in a suit and tie], she 'sees' a criminal, she sees me as a threat."[93] Note the conceptual metaphor underlying Yancey's analysis—the white woman sees him *as* a criminal or a threat (A BLACK MAN IS A CRIMINAL). This seeing does not need to be intentional, nor propositional. Anti-black racism, as Yancey argues, is somatic:

> To begin to see me from a perspective that effectively challenges her racism, however, would involve more than a *cognitive* shift in her perspective. It would involve a continuous effort at performing her body's racialized interactions with the world differently. This additional shift resides at the somatic level as well. After all, she may come to judge her perception of the Black body as epistemologically false, but her racism may still have a hold on her lived body. I walk into the elevator and she feels apprehension. Her body shifts nervously and her heart beats more quickly as she clutches her purse more closely to her. She feels anxiety in the pit of her stomach...Her palms become clammy...There is panic, there is difficulty swallowing, and there is a slight trembling of her white torso, dry mouth, nausea. The point here is that deep-seated racist emotive responses may form part of the white *bodily* repertoire, which has become calcified through quotidian modes of bodily transaction in a racial and racist world.[94]

Regardless of what the woman consciously thinks about Yancy, she operates as if he is a threat. She lives and moves according to an imaginary in which the black man is a predator and the white woman is innocent.

Yancy highlights the way in which the response of the woman in the elevator is already a kind of violence against him—one that refuses to recognize him as a free subject but only allows him the visibility of criminality.[95] But it is also a form of seeing that *makes* people criminals under the law, a form of seeing that justifies even physical violence. Yancey appeals to Judith Butler in developing this understanding. In her essay on the Rodney King trial, Butler talks about the jury's response to the video of King's beating. As Butler points out, the defense attorneys for the cops responsible argued that they were endangered by

92 Sullivan, *Revealing Whiteness*, 69.
93 Yancy, *Black Bodies, White Gazes*, 3.
94 Ibid., 5.
95 Ibid., 1-5.

King, yet "the video shows a man being brutally beaten, repeatedly, and without visible resistance." [96] And yet it worked. For Butler this cognitive dissonance arises because the video was seen and interpreted in the context of a "racially saturated field of visibility."[97] This field determines in advance the interpretation of visual evidence: "The visual representation of the black male body being beaten on the street by the policemen and their batons was taken up by that racist interpretive framework to construe King as the *agent* of violence, one whose agency is phantasmatically implied as the narrative precedent and antecedent to the frames that are shown."[98] In other words, the viewer supplies the justification that King had been violent in order to deserve this beating.

Butler depends here on Frantz Fanon, who writes of the presumed danger of the black body when he recounts a child pointing at him and saying "Mama, see the Negro! I'm frightened!" Fanon argues that underneath the corporal schema of our body's movement in the world is a "historico-racial schema."[99] Interpreting the King video through Fanon's philosophy, Butler argues that "the black body is circumscribed as dangerous, prior to any gesture, any raising of the hand... And because within this imaginary schema, the police protect whiteness, their own violence cannot be read as violence." [100] Seeing the black body as always and already a threat justifies violence against black bodies as self-defense: "The actual blows against Rodney King are understood to be fair recompense, indeed, defenses against, the dangers that are 'seen' to emanate from his body."[101] As Butler goes on to argue, this same reading is repeated when those black bodies who were killed by police in the riots were seen to be perpetrators rather than victims of violence; in President George W. Bush's lament of property damage rather than life; in the media's focus on the effects of the riots rather than the motivation for them, and an overall "bestialization of the crowds" in which those protesting are presented to viewers as wild threats.[102] Through the lens of white paranoia, black bodies are seen as always and already violent, and therefore violence against them as always and already justified.

For Yancy, this seeing is a continuation of the confiscation of black bodies that began in enslavement and continues today in more quotidian social transactions.[103] The act of confiscation in the elevator is therefore not isolated: "Within the context of the elevator, her ignorance is not simply a lacuna that results from her own epistemic complacency, but is part of a larger systemic process whereby her ignorance is a dynamic social production."[104] That is, the white woman's behavior only makes sense in terms of the broader norms in which white women are innocent and black men are criminals. This same behavior, in turn, further sustains the life of these norms in our world. Because racism is both somatic and social, Yancy argues that white anti-racism therefore cannot merely be defined by a conversion of belief; it must involve a conversion of body and of worlds.[105]

Cognitive science confirms what scholars of race, largely working in the phenomenological tradition, have been arguing for decades: that ideologies like white supremacy are culturally sustained habits of the body—which persist even in the absence of malice. Racism is both somatic and social. An embodied and transactional perspective allows us to build on this insight to speak specifically about the way such ideologies are scaffolded in the world; how they shape our entire being-in-the-world, including how we reason about it and move within it; and how our activity may reinforce or sustain these ideologies. A conceptual metaphor like A BLACK MAN IS A CRIMINAL is a conceptual metaphor many people live by without realizing it—it

96 Butler, "Endangered/Endangering", 15.
97 Ibid.
98 Ibid., 16.
99 Fanon, "The Fact of Blackness," 111-12, quoted in Butler, "Endangered/Endangering," 17-18.
100 Butler, "Endangered/Endangering", 18.
101 Butler, "Endangered/Endangering", 20. Johnson notes a similar logic operating in those who fantasize, attempt, and/or commit rape, who speak of their victims as already having exerted a force upon them, in *The Body in the Mind*, 6.
102 Butler, "Endangered/Endangering", 21.
103 Yancy, *Black Bodies, White Gazes*, 1-5.
104 Ibid., 21.
105 Ibid., 22.

becomes, in Yancy's words "a constitutive imaginary background."[106] One need not think it, or consciously believe it, to have it structure one's experience of the world. It is scaffolded in how real estate is valued and protected by police; the marking of certain neighborhoods as "safe"; the segregation of neighborhoods and schools; the disproportionate incarceration and subsequent disenfranchisement of men of color.[107] If our cognition is offloaded onto the environment as people like Andy Clark argue, then one need never vocalize a belief in white supremacy to operate according to its logic and patterns. The conceptual metaphor A BLACK MAN IS A CRIMINAL exists not only in the minds of racists, but in the structures of our world. This metaphor is embodied and replicated when anyone clutches their valuables more closely at the sight of a black man; when white people breathe more easily in all-white spaces, or send their children to all-white private schools; when drug use is treated as a problem of crime in communities of color and a health crisis in white communities.

The doctrine of original sin can appear paradoxical—as if human beings are in some way responsible for sins they did not commit, or cannot help but commit. Embodied cognition allows us to understand how sin is passed down from generation to generation as a result of the interdependence of all human beings, and how it is that I may be responsible for something I have never intentionally willed. While I did not seek out habits of white supremacy, for example, I am responsible for changing them. In a similar way each of us is thrown into a world, mired by sin, in which we are somehow implicated. Embodied cultural cognition allows us therefore to link personal sin with structural sin.

Since sin can be transmitted through the habits of the body, the work of redemption is not finished when I have intellectually renounced these worldviews. I still have to take up the material of my body and shape it according to the intellectual conversion I have had. If white supremacy is fostered in part by fear—the white woman in Yancy's elevator, the white child pointing at Fanon, the jurors in the trial against Rodney King's assaulters—then anti-racist activism requires what Sullivan refers to as "psychosomatic soul work" on the part of those who fear black bodies.[108] Sullivan suggests practices like yoga, dance therapy, or other forms of psychosomatic therapy, which foster mindfulness and control of the body's panic responses.[109] Trauma research confirms the success of these practices in helping rewire the body's "flight or fight" responses.[110] If fear responses are a component part of the structures of white supremacy in the world, then these practices are morally significant, in helping subjects take responsibility for their actions in the world.

Habits develop in transaction. In diagnosing and responding to white supremacy, the relevant unit of analysis is not the isolated subject but the transaction between brain, body, and world. Changing the racist habits of the body cannot merely be a personal project. It requires working to change the structures of the world, to change the environments within which new habits are developed. Redemption is therefore not only corporal but corporate, involving the transformation of both person and society. Without reflecting on both habits and environment, anti-racist activity is doomed to fail.[111]

Within churches, it is not enough merely to preach the equality of all persons, or even more specifically against the stereotype of black criminality. Segregated churches, blonde Jesuses, the installation of white pastors in leadership over congregations of color, are all ways that white supremacy can become scaffolded in a community quite against its own intentions. The church then cannot merely offer a counter-narrative. It must rather build counter-worlds: new spaces and practices which scaffold new forms of thinking of and being in the world; it must produce counter-subjects: new people with new habits of mind and body.

106 Ibid., 72.
107 For analysis on the latter, see Alexander, *The New Jim Crow*.
108 Ibid., 166-67.
109 Ibid., 172-82.
110 For the most thorough overview of this research, see van der Kolk, *The Body Keeps the Score*.
111 Sullivan, *Revealing Whiteness*, 27.

3 Conclusion

Thought is embodied. We think not only in terms of the body's movement in the world, but in and through the body's movement in the world. An understanding of the human mind as isolated from the structures of the brain, the activity of the body, or the world in which it moves, is no longer empirically feasible. Both our bodies and our environments therefore play a constitutive role in the development of our subjectivity. In short, who we are cuts across brain, body, and world. This calls for a revolution of theological anthropology. Our spiritual and moral development must be understood in light of the fact that we are embodied beings, embedded in our environment, whose identities are both material and discursive.

The test case of white supremacy demonstrates how this revolution in understanding the human person can be used for ethical reflection, and in thinking about the operation of sin and redemption in our concrete, material lives. An embodied and transactional account of the subject directs our attention to more than just conscious and deliberate acts of volition, but to the patterns of our body's activity and the structures of our world. Ultimately, it calls for a theological anthropology that seeks redemption across brain, body, and world.[112]

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