Wittgenstein and Embodied Cognition: A Critique of the Language of Thought

Amber Sheldon
University of San Diego, amberesheldon@sandiego.edu

Follow this and additional works at: https://digital.sandiego.edu/hc-keck
Part of the Other Philosophy Commons, Philosophy of Language Commons, and the Philosophy of Mind Commons

Digital USD Citation
https://digital.sandiego.edu/hc-keck/2

This Working Paper is brought to you for free and open access by the Humanities Center at Digital USD. It has been accepted for inclusion in Keck Undergraduate Humanities Research Fellows by an authorized administrator of Digital USD. For more information, please contact digital@sandiego.edu.
Wittgenstein and Embodied Cognition: A Critique of the Language of Thought

Amber Sheldon

University of San Diego, 2018
Wittgenstein and Embodied Cognition: A Critique of the Language of Thought

Amber Sheldon

University of San Diego, 2018

Introduction

The “computer metaphor” views the content of the mind as being akin to software. Our brains are coded using abstract symbols to represent concepts and semantic rules.¹ Such models for understanding the relation between mind and body have been popular among cognitive scientists and philosophers.² Computational Functionalism views the mind/brain like a computer that works according to a system of symbolic inputs and corresponding outputs. The framework of these computational mental representations is the “language of thought.”³ This symbolic mental language is often analogized with the symbolic “language” of a computer. In The Language of Thought, Jerry Fodor theorizes that the mind has an innate symbolic (and physically real) system of representation that comes prior to any natural language. Fodor’s “language of thought” hypothesis has been an influential contribution to the philosophy of mind and cognitive science.⁴

In this paper, I will argue that Fodor’s model oversimplifies language acquisition and, consequently, the mind itself. The assertions of this paper will be concerned with language acquisition as it is presented in Ludwig Wittgenstein’s Philosophical Investigations in contrast with Fodor’s theory of tacit language competency. Wittgenstein contends that

---

³ Crumley 98.
⁴ Crumley 103.
language is produced by activity. One learns a language through practice and active participation. I will support the argument given by Wittgenstein that language is an external, active, and public phenomenon. Using Wittgenstein’s private language argument, I will attempt to cast doubt on Fodor’s theory, which currently holds robust influence with respect to conceptions of the nature of mind.  

Games and Rule-Following

Wittgenstein’s account of language as activity is framed by a comparison between language and games. The concept game doesn’t have a common element, yet we call many different activities “games.” There’s chess, there are card games, there are even games as simple as bouncing a ball off a wall. There are no necessary or sufficient conditions that characterize all instances of “gamehood.” There are only overlapping networks of similarities. One could also imagine language as akin to tools where the functions of words or sentences have the multiplicity of functions of the tools in a toolbox—e.g. describing, joking, giving orders, (i.e. different “language-games”), and so on.

Naturally, we are led to consider the following: How does one learn a language game? Well, one must learn the rules. The rules of a language game are realized through custom. The correct application of a rule is fixed insofar as it has an agreed upon, customary use. Hence, Wittgenstein holds that it is not possible to obey a rule

---

5 Crumley 104.
7 PI §11.
8 PI §23.
9 PI §199.
“privately.” Otherwise, there would be no standard against which we could measure whether or not a rule is being followed correctly. If I were to create an internal rule, there would be no grounding to ensure that I am following it consistently. Even if I tried to remember my private rule and its application, how could I know whether or not I followed it correctly? Believing that I’m applying the rule appropriately does not mean that I actually am. I could be wrong. Thus, the community of speakers must agree upon how a rule is to be applied to maintain consistency and establish correctness. Then, the rule is realized through the social practice of enacting the rule. The rules of our language games are arbitrary, but their social environment ensures a level of “quality control” by which correctness is standardized.

Wittgenstein holds that grasping a rule is a technique that in itself must be learned, and it is not an ability that precedes the learning of a language. Naming is itself a language game that must be learned prior to an individual’s ability to conceive of referents’ correspondence with names. For example, if I were to have been isolated from human beings at birth, I would not have the skills or context required to obey or conceive of a rule in language-games because I would have never been exposed to naming or rules.

As the rules and customs are mastered by the language-learner, concepts come to fruition. To possess a concept is to have the ability to apply its corresponding word with respect to the proper rules and conventions. For Wittgenstein, a concept is that which the

---

11 *PI* §202.
12 *PI* §242.
13 Malcolm 172.
14 *PI* §199.
mind apprehends from the delineations of language through words. More simply put, a concept is a “mental” distinction that singles out a given thing, feeling, experience (and so on) that is learned through practice and correct application. For example, we see things that are “red.” However, until you learned the application of the word “red,” you did not have that distinct concept. Wittgenstein rejects the model of language-acquisition that maintains that words are learned and attached to private concepts in the mind. You did not independently come to possess the concept “red” and then attach an arbitrary word to it. “Red” was given to you through use and practice (albeit arbitrary as well). One cannot acquire the concept “red” if the technique or rules associated therewith do not exist. Just like one cannot intend to play a game, unless the game and its conventions already exist.

Wittgenstein further exemplifies the acquisition of concepts using pains. Supposedly, pain is a personal experience. I can’t feel your pains, and you can’t feel mine. Hence, how does one know when one is in pain, or when another is in pain? Wittgenstein obtusely describes sensational reference as being a substitute for behavior. The “primitive” expression of one’s pain is replaced and subsequently manifested in the language within the context of which one learned the concept “pain.” However, he does not deny that there is “mental processes” or sensations. He comments that it is an error of our understanding of “expression” that sustains the confusion that sensations are objects that are being described. There is an immediacy with which we have sensations, and sensation

\[16\] PI §380.  
\[17\] PI §337.  
\[18\] PI §253.  
\[19\] PI §244.  
\[20\] PI §306.  
\[21\] PI §295.
words are expressions of our experiences, but they do not have concrete referents, nor are they meant to pick out a “thing” in the world.\textsuperscript{22} For example: you don’t \textit{learn} that you are in pain. It’s not like conventional knowledge. There is no \textit{information} contained in your pain. You experiencing pain. You don’t learn about your sensations. You \textit{have} them.\textsuperscript{23} Thus, sense-words give expression to a sensation. They are like behaviors insofar as they are responses to stimuli that we exhibit to others.

\textbf{The Language of Thought}

In \textit{The Language of Thought}, Fodor presents his argument regarding internal languages. He maintains that psychological processes are best modeled computational processes. Without a system of representation, there can be no computation.\textsuperscript{24} From this, we can infer that there is a medium by which computations are made. In other words, the existence of a computational system presupposes the existence of a representational system.\textsuperscript{25} Thus, being an exhibitor of computational psychological processes, the mind must have an internal representation system. \textit{A fortiori}, the computational model of the mind presupposes language,\textsuperscript{26} and all behavior-driven creatures possess private languages by which they calculate their behaviors.\textsuperscript{27}

\footnotesize
\textsuperscript{22} PI §304.  
\textsuperscript{23} PI §246.  
\textsuperscript{24} Fodor, Jerry A. (1980). \textit{The Language of Thought}. Harvard University Press. 31.  
\textsuperscript{25} Fodor 27.  
\textsuperscript{26} Fodor 31.  
\textsuperscript{27} Fodor 68.
One cannot apprehend a language and its rules unless those rules exist in a language already known by the learner.\textsuperscript{28} As an analogy, when learning a second language, one often consults a dictionary to learn what words mean; thus, when learning a first language, one must consult the internal language to learn the meanings of words.\textsuperscript{29} However, this language does not share the characteristics of a natural language.\textsuperscript{30} Rather, a representational system \textit{like} a language manifests in the mind.\textsuperscript{31}

Fodor claims that the language of thought is not threatened by the private language argument. Fodor says that Wittgenstein’s argument asserts there cannot be a language where the terms are only understood by the speaker/inventor of the language without publicly observable criteria. Fodor says that, since he is not proposing a language like this, his theory is not undermined by the private language argument. Although Fodor says that his claims do not oppose what is said in Wittgenstein’s private language argument, I am troubled by how he presents this argument. By presupposing the existence of a representational, rule-governed system, it seems that the very basis of Fodor’s language of thought relies on violating Wittgenstein’s major claim regarding language acquisition in \textit{The Philosophical Investigations}: the rules of language \textit{must} be learned. According to Wittgenstein, language is acquired through the activity of interaction. If rules and languages are essentially learned, then it would seem that there cannot be an innate system of representations with rules.

\textsuperscript{28} Fodor 61.  
\textsuperscript{29} Fodor 83.  
\textsuperscript{30} Fodor 31.  
\textsuperscript{31} Fodor 78.
Objections and Responses

To recapitulate, the endeavor of this paper is to defend the primacy of language over thought using the private language argument. If we cannot maneuver our way around the Fodorian theory, then the private language argument does not succeed in achieving these ends.

Wittgenstein’s argument cannot rule out private language in the case of internal computing language—because we do have computers. Fodor thinks that Wittgenstein’s argument disarms the conception of a private language from a different definition of what a language is. There cannot be a language where the terms are only understood by the speaker/inventor of the language without publicly observable criteria.32

A possible objection to my argument would point out that language of thought is not at all like a natural language; it is called a language in a metaphorical sense. Thus, a Fodorian might respond that, because of this reasoning, the “language” of thought still explains language acquisition with respect to thought’s primacy over language. Although the Wittgensteinian response is that, in order for a person to know a “language,” that person must learn the rules of communication and subsequently of the language itself, the language of thought is not subject to the same rules of external language. Hence, the language of thought does not capitulate to the same vulnerabilities as those found in, what Wittgenstein calls, a “private language.” Wittgenstein’s argument is applicable when we are

32 Fodor 69.
addressing natural languages, but the abstract formal language of thought arguably maintains against the private language argument’s account.

Even if we hold that language precedes our concepts (e.g. the argument against the Augustine example), and we don’t have thoughts without a language, the language of thought still has explanatory power with respect to our ability to grasp concepts, individuate named objects, and construct thoughts in general. Fodor’s theoretical language is never learned, but it could account for the language-learning ability. This is because the unknowable structure of the brain’s tacit “language,” enables us to grasp a natural language. It is like a coded blueprint for external linguistic apprehension. The human mind seems to consistently separate concepts that appear to be standardized. For example, despite the fact that cat, gato, and chat are different words that pick out the same object, the fact that the concept of this individual animal is present across different linguistic communities can be explained by the theory that the human mind is constructed in such a way that enables it to individuate the particular intension “cat.” Or, if I were to give someone ostensive teaching of the words for different objects in a room, their ability to recognize and differentiate the individual objects could be explained by the language of thought. Based on these illustrations, the language of thought isn’t a private language in the Wittgensteinian sense. It is the foundation that facilitates of concept-formation and language-learning.

**Fodor the Chomskyan**
Fodor has generated his theory as a further development of Noam Chomsky’s model of the brain as a mental and linguistic organ with an innate computational code. If we can show that there are valid rejections of the Chomskyan theory given by Wittgensteinian arguments, then we may have a case by which the language of thought (and also universal grammar) can be called into doubt. Before we can proceed with this, we must first unravel the underlying Chomskyan influence from the Fodorian theory.

Chomsky theorizes that what we call a language is abstract and external (an E-language), whereas grammar is an internal, innate skill (I-language).\textsuperscript{33} This system of innate language competence is that which enables language acquisition. What we call “grammar” in the sense of an E-language is actually a manifestation of the internalized grammar located in the mind/brain.\textsuperscript{34} Furthermore, unlike an externalized, arbitrary language, the I-language is \textit{physically real}. Like neural networks and chemical compounds, this innate language is an actual entity that exists in the human brain/mind.\textsuperscript{35} He proceeds to illustrate the concept of “universal grammar”\textsuperscript{36} to contend that there is a system of principles in the mind/brain that defines a human language, and this grammar is that on which a language-learner maps data.\textsuperscript{37} It is a “language acquisition device.”\textsuperscript{38} According to Chomsky, a child does not \textit{learn} a language.\textsuperscript{39} Rather, a language is something that “grows” within the mind/brain like a stage of development.\textsuperscript{40} External stimulus plays a role in this

\textsuperscript{34} Chomsky 724.
\textsuperscript{35} Chomsky 724.
\textsuperscript{36} Chomsky 724.
\textsuperscript{37} Chomsky 724.
\textsuperscript{38} Chomsky 724.
\textsuperscript{39} Chomsky 725.
\textsuperscript{40} Chomsky 725.
development, but overall, the determination of such development is largely internal. The I-language generates, apprehends, and standardizes the E-language. Rather than being a performatively acquired or learned skill, language exists within the mind as a set of rules that underlies our understanding of language.

When we read Chomsky’s theory of the internal language, we can easily find points of similarity between the Chomskyan model of natural language acquisition with those that lie at the foundation of the language of thought theory. Chomsky’s assertion that a person does not learn a concept is comparable to Fodor’s view that a person cannot possibly acquire new concepts. In the Fodorian description of the mind/brain tacit language, one can only “learn” the semantic properties of a term if one already has a representation with the same semantic properties. Fodor also illustrates that the language of thought is comprised of “literal schemata”—a physically existing code within the brain, which can be seen as analogous to the Chomskyan “language organ” and his statements regarding the physical reality of language within the mind/brain. In alignment with Chomsky’s model, the language of thought theory proclaims that learning a first language requires a preconstructed grammar. Fodor’s theory, similarly to Chomsky’s, relies on a “representational system that mediates learning.”

With these comparisons in mind, I will further address Wittgensteinian critiques provided against Chomskyan universal grammar in effort to demonstrate how the private

---

41 Chomsky 725.
42 Fodor 95-6.
43 Fodor 80.
44 Fodor 51.
45 Fodor 58.
46 Fodor 86.
language argument might possibly call Fodor’s language of thought theory (and its related implications regarding the nature of mind) into question.

Critical Responses to Chomsky

In *Language Sense and Nonsense*, Baker and Hacker provide numerous (often polemical) refutations of Chomsky’s theory of universal grammar. In this text it is proposed that Chomskyan explanations of language are based upon philosophical misconceptions that create “confusions and unclarities” by asserting that mental states have a “structure consisting of rules and principles.”

The claims regarding linguistic innateness are absurd, according to their account, because it seems incoherent to propose that moods and emotions, which are clearly mental states, would have a *structure* let alone a set of *rules*. Baker and Hacker contend that, if we establish that knowing a language is a mental state, then it cannot be a capacity. For example, intelligence is not a mental state, and conversely, cheerfulness or terror are mental states, but they are not *capacities*. The culmination of the absurdity is that, not only is knowing a language a claimed to be mental state, but the “language capacity” is regarded as a physical, *mental organ*, about which we can learn by investigating its structural and functional development in the individual and the species. If we study this

---

48 Baker & Hacker 280.
49 Baker & Hacker 280.
50 Baker & Hacker 280.
51 Baker & Hacker 280.
language organ, which gives us the capacity for learning a language, we can learn the innate code therein that facilitates our linguistic knowledge. Legs are a physical structure that give a person the capacity to walk or run, but one cannot “stand on the capacity.” Organs have capacities, and the capacities are manifested in different ways (e.g. legs can run, walk, jump etc.), but to analogize the capacities to organs themselves is, to the authors, incoherent.

“Understanding is akin to an ability.” Someone who “understands” is able to explain what he means, answer responses to his utterances, and paraphrase them. Understanding is manifested in the exercise of communicative activities. It is not, however, identical (reducible) to behaviors. Understanding is not an inner state from which the behavior is generated, but methods of understanding are like methods of doing other things. There do not seem to be unique or exact criteria for “understanding” an arbitrary sentence. Understanding involves a multitude of abilities. There are various ways that one can demonstrate whether a sentence was understood correctly, but the understanding of a sentence is not dependent on mastering a prescribed formula of meaning and grammar. The rules of different language-games compound to achieve the ability to understand.

Norman Malcolm explains in Wittgenstein: Nothing is Hidden that Wittgenstein holds that grasping a rule is a technique in itself that must be learned, and it is not an ability that precedes the learning of a language. Naming is itself a language-game that must be
learned prior to an individual’s ability to conceive of referents’ correspondence with
to obey or conceive of a rule or its context in language-games. Such a person could
Wittgenstein illustrates this point by explaining that the function of a brake lever succeeds
insofar as it is connected to the entire functioning of the mechanism.62

Ostensive teaching brings about the recognition of a “thing,” but Wittgenstein thinks
this only comes about as a consequence of having achieved another sort of “training.”63 In
§2, he outlines a primitive version of a language between two builders. Builder A calls out
words like “block” or “slab,” and builder B, who has no language and is just learning these
words, supplies the objects.64 Wittgenstein says the words and their referents are only a
“piece” in this primitive language-game. The command to offer the items is a game. The
ostensive teaching is also a game. Builder B is not necessarily learning the word as a mere
“picture” of its referent. Rather, he has come to associate a particular action with reference
itself. The action of retrieving the correct objects is how Builder B learns the name of these
objects. The learner comes to know ostensive naming through performance of this game
with the teacher, and he is able to apply this game in future interactions, not because the
words are attached to images, but because he knows how words are used and applied.65
References (i.e. words) are learned with respect to their use between speakers. The
acquisition of individual names is not a process whereby we just apply references to

61 Malcolm 172.
62 PI §6.
63 PI §6.
64 PI §2.
65 PI §1.
referents. We learn the action of *use* through performances and experiences. Sense of language is not independent from the circumstances in life in which the language is used.\footnote{Malcolm 173.}

The plasticity of the language skill is also unproblematic under the Wittgensteinian view. For the Chomskyan, considering the vast number of sentences that a speaker can use with respect to the finite number of sentences to which a speaker is exposed, there must be a code in the brain for sentence structure and concept formation upon which a person learns to apply external words. However, if we accept that having the ability to understand is the culmination of one’s having learned a various language-games and their correct practice, we can explain this without appealing to the existence of an innate brain structure. For example, a hearer might be able to interpret a lecture in Spanish without knowing Spanish. She could understand if she also understood Italian and Portuguese. This shows that an unlearnt ability can manifest as a consequence of other learnt abilities.\footnote{Baker & Hacker 351.}

“Speaking a language is part of an activity or a life form.”\footnote{PI §23.} According to Baker and Hacker, it would be as absurd to ask “how many sentences could one produce” as it would be to ask, “how many pictures can one paint?”\footnote{Baker & Hacker 350.}

Another reason why these writers reject the computational model of the mind is that it overlooks the actual experience of learning a first language. The theory of universal grammar infers that, because of what we can observe from the inputs and outputs of a language-learning child, there must be a structure already there upon which they can build their conception of grammar. A person is assumed to be pre-programmed in a way that

\footnote{Malcolm 173.}
\footnote{Baker & Hacker 351.}
\footnote{PI §23.}
\footnote{Baker & Hacker 350.}
allows it to produce numerous outputs with the input it receives. However, a child is not a computer that is merely fed *information*. Baker and Hacker emphasize that a child is part of a family. A family that teaches, trains, encourages, prompts, and plays with it. Thus, it seems that the linguist’s computer analogy distorts the actual experience of the language-developing child by modeling language acquisition as a process of inputs and outputs, “rather than playing games, singing, or listening to fairy tales.”

**Thinking**

I will now turn to Wittgenstein’s criticism of Augustine’s account of language-learning at the beginning of the *Philosophical Investigations*. Augustine recounts that, as a child, he learned the names of various objects through the gestures and the expressions of the adults around him. Wittgenstein responds that Augustine’s account presupposes that the child had the ability to *think*. “Thinking” here is defined as “talking to oneself.” In order to have a *thought*, a person must possess the requisite technique that accompanies language competency. Concepts come to fruition when the learner understands the rules of different language-games and their correct applications in practice. To possess a concept is to understand communicative rules and conventions and their proper applications.

---

70 Baker & Hacker 289.
71 Baker & Hacker 290.
72 *PI* §1.
73 *PI* §32.
74 *PI* §32.
75 *PI* §199.
76 Hacker 219.
Naming and describing are not on the same level. Rather, naming is preparation for description.

Though, in this case, is distinguished from experience. Experiences are intangible mental states that include our hopes, our wills, our desires, our expectations, etc. Wittgenstein points out that one need not articulate the sentence “I expect it will rain soon” when one experiences the expectation that a particular weather phenomenon will take place. Thoughts are not the same as mental states or experiences. Thoughts are realized through linguistic expressions regarding my experiential states. I can think to myself “I expect it will rain soon,” but this act is not reducible to my expectation that it will rain. My thought merely uses the tools of my language to express the belief. It makes no sense to attribute senses, concepts, or thinking to a person who had not already learned a language.

(Ambiguous?) Behaviorism

Wittgenstein’s account of “the mental,” although similar to the extent that he has been (mis)classified as a behaviorist, is obtusely peppered with evidence that his opinion regarding the mind is subtly (but importantly) different from the traditional behaviorism proposed by Gilbert Ryle in *The Concept of Mind*. In this, Ryle explains—similarly to Wittgenstein—that theories purporting the existence of a “private” or “introspective”

---

77 *PI* §49.
78 *PI* §608.
79 *PI* §329.
80 *PI* §6.
feature of the mind are misguided. He maintains that one cannot "look inside" and "observe" one's own sensations despite awareness thereof.\textsuperscript{81} Introspection and consciousness are mischaracterized/miscategorized as being separate “inner” activities from those in the body. Like Wittgenstein, Ryle is of the opinion that the pervasive generic, ambiguous, and abstract misuse of the language by which we describe “the mental” perpetuate the postulation of entities that simply don’t exist.\textsuperscript{82} According to Ryle’s argument, belief in “introspection” is a mythology mistakenly propagated by our traditional “ghost in the machine” model of the mind-body relationship.\textsuperscript{83}

Hence, since this “internal life” of human beings is illusory, those features that we conventionally categorize as being those of an introspective and private nature are actually public expressions and are openly observable behaviors. To know about myself is to know my physical inclinations, sensations, social responses and so on. Therefore, I can know just as much about you as I can know about myself.\textsuperscript{84} We do not have mysterious privileged access to an inner world. We are mainly equipped with certain inclinations by which we respond to stimuli.

Wittgenstein’s view contrasts with Ryle’s theory in that Wittgenstein does not deny the existence of mental process.\textsuperscript{85} Wittgenstein acknowledges that our mental lives are “grammatical” constructions;\textsuperscript{86} however, Wittgenstein isn’t going as far as to say that mental life is entirely fictitious. He opacity declares that a sensation is neither “a

\textsuperscript{83} Ryle 155.
\textsuperscript{84} Ryle 155.
\textsuperscript{85} PI §308.
\textsuperscript{86} PI §307.
something” or “a nothing.” In saying this, Wittgenstein drives his main point that speech regarding mental life is nonsensical—not because there isn’t personal sensation, memory, imagining, etc., but because the way we have learned to speak thereabout is what creates the “problem” of the mental in the first place.

The role played by the sensation-word in the language game isn’t that of a “picture.” When we talk about our feelings, we are engaged in the language game of *expressing* rather than that of *describing*. You can’t speak of knowing your inner experiences, because there is no intelligible way to doubt them. You have experiences, and you use language to express them. When we are given a word for a sensation, e.g. ‘pain,’ we are given a new way of behaviorally expressing that sensation, but the word ‘pain’ isn’t a name given to a particular sensation. He does not here mean that ‘pain’ is reducible to crying out or wincing. Rather, it becomes embedded in, and replaces pain-behavior as a learnt expression within social context of the utterer.

**“New” Cartesianism**

Behaviorism was generated from a desire to repudiate the Cartesian model of a mind-body dichotomy. However, the suspicions and questions of the behaviorist stand also against the contemporary materialist postulations about the mind. The old Cartesian

---

87 *PI* §304.  
88 *PI* §300.  
89 *PI* §291.  
90 Priest 59.  
91 Priest 61.  
92 Priest 62.  
93 Hacker 119.  
94 Priest 56.
sundering of mind from body can be observed when we speak of the mind as being something and the body as being another. Descartes’ original claim attributed mind to the existence of an immaterial, privately accessible, entity, and the same language is similarly applied when people talk about the brain as the mind. The brain is that which animates and controls the body. Such views perpetuate the language that speaks of minds as if they were distinct entities from the body. Along this vein, the materialist makes as big of a mistake as the Cartesian dualist. By posing that there even is a mind-body problem, that a human body is differentiated from a corpse insofar as it is animated by a mind/brain, the materialist also disregards the Rylean assertion that the clean mind-body distinction is a grammatical illusion and an inappropriate description of what constitutes the mind.

**Embodied Cognition**

With respect to Wittgenstein’s portrayal of “thinking” as a learned, linguistic skill, we can make some interesting connections between the implications of Wittgenstein’s observations regarding language/thought and contemporary embodied cognition. A growing number of researchers in the fields of cognitive science and psychology propose that cognitive processes such as remembering, thinking, and understanding a language are based on physical interactions with the environment. The mind is not merely the

---

95 Priest 49.
96 Priest 56.
97 Priest 56.
98 *Grounding Cognition* 1.
controller of the body. The body, its perceptions, and its relationship to the external world essentially contribute to the mind and the way we think.\textsuperscript{99}

For example, the understanding of the following sentences is largely bound up with experiential data that accompanies the words: “Bart hammered a nail into the wall,” versus “Bart hammered a nail into the floor.”\textsuperscript{100} The mental representations with which we grasp concepts like “floor” and “wall” are largely dependent on perceptual information. Part of understanding these two sentences involves knowledge and recall of orientation. Our construction and apprehension of the meaning of the words is connected to their experiential and perceptual natures. It is as if interactions with the world leave “traces” of experience in the brain with which we are able to construct complex concepts and understanding.\textsuperscript{101} The objects of thought and recollection come from many locations in our memory, rather than having a single source from which they are recalled.\textsuperscript{102} The categories and structures on which our language is based are essentially learned, and they are learned in contexts.\textsuperscript{103} For example, words like “root” or “branch” are essentially derived from their contexts.\textsuperscript{104} One learns to understand “root” or “branch” with respect to the concept “tree” (and consequently “leaf,” “trunk,” etc.). Thus, with respect to the embodied system of understanding the mind and language, it seems that more than a set of lexical and syntactical prescriptions is required for a person to possess a language.\textsuperscript{105}

\textsuperscript{99} \textit{Grounding Cognition} 1.
\textsuperscript{100} \textit{Grounding Cognition} 225.
\textsuperscript{101} \textit{Grounding Cognition} 224.
\textsuperscript{103} Barsalou 24-5.
\textsuperscript{104} \textit{Grounding Cognition} 238.
\textsuperscript{105} \textit{Grounding Cognition} 227.
Proponents of embodied cognition additionally have indicated the importance of linguistic “action” with regard to acquiring a language. Similar to Wittgenstein’s illustration of the primitive language between two builders, we can show that when we use the sentence “give me the ball,” we are able to teach a child the name of the thing we want (the ball) through the actions associated with the language. The child associates the action of grasping the ball, extending the arm, and releasing the ball into the hand of the (feedback-producing) parent with the linguistic construction. Not only does the use of these words in this context teach the child to connect the object to the associated words/actions, the child also comes to understand the use of words in a particular way or order that can be applied to variations on that same sentence. The child more fundamentally learns a syntactical construction that can be applied in various other forms (e.g. “throw me the ball” or “tell me a story.”).

The objective of my argument was to identify and analyze pivotal points of difference between Wittgenstein’s private language argument and Fodor’s language of thought theory. Because the language of thought theory is based on a highly abstract model of “language,” it is difficult to argue against it. Also, because the private language argument is more applicable to natural languages, someone might object that it is insufficient to argue against the abstract language of thought. It could even be argued that, because it is not a natural language, the language of thought hypothesis does not even contradict the private language argument. However, the latter is patently false since the language of thought theory clashes essentially with the Wittgensteinian of language, because it

---

106 *Grounding Cognition* 229.
107 *Grounding Cognition* 229.
presupposes thought prior to language. With respect to the private language argument, embodied cognition seems to offer more convincing and comprehensive explanations of the mind that involve the bodily and behavioral aspects of the human experience.

Works Cited


