

“The thing and the feeling of that thing:”

The Poetics of William Carlos Williams, Neural Representations of Conceptual Primitives,
and Grounded Cognition

Jake Leonard

Psychology

Science is cruder [than philosophy], more directly useful, more intimate to our lives, more embedded in our errors of perception and so harder to eradicate from the mind.

—William Carlos Williams, *Imaginations*, 305

William Carlos Williams’ poetry is preoccupied with the mundane objects of Rutherford, New Jersey: a firetruck or a red wheelbarrow glazed with rain. Willard (1965) calls Williams a “poet of things” whose chief “desire [is] to create poetry based on the careful examination of concrete things as a way to attain poetic truth” (p. 311). His poetry is characterized by a sense of sensual and emotional immediacy, which aims to achieve contact with a world of objects, and Williams states that he takes “contact to mean... man with nothing but the thing and the feeling of that thing” (Ramazani, Ellmann, & O’Clair, 2003, p. 285). Simply put, Williams seeks to linguistically represent objects as they actually are, to offer representations that resemble the referent as closely as possible.

Critics such as Easterbrook (1994) have argued that Williams’ goal is ultimately futile: the divide between linguistic representations and experiences of a thing-itself remains unbridgeable. Easterbrook (1994) writes, “The ‘core’ [of the object] is recognized as a myth... not simply one of the ‘many disguises’ poetry has taken up” (p. 40). While most explanations of Williams’ work rely on biographical accounts or philosophical theory, recent developments in cognitive neuroscience, namely Martin’s (2016) grounded representations in action, perception,

and emotion systems (GRAPES) model for the cognitive representation of object properties and concepts, lends support for Williams successfully recreating the experiences of things linguistically. His poem “The Great Figure” exemplifies the ways Williams’ poetry fit into the GRAPES model. Moreover, Oakey (2015) suggests that Williams’ poetry acts as an epistemology to understand the world. His notion “no ideas but in things” (Ramazani et al., 2003, p. 286) ultimately corresponds to Hayes and Kraemer’s (2017) description of the benefits of grounding abstract concepts in the tangible. “The Red Wheelbarrow” demonstrates Williams’ use of concrete objects to convey abstract ideas. Ultimately, insights from empirical cognitive-neuroscientific research provide a novel understanding of William Carlos Williams’s “poetry of things.”

Typically, critics evaluate Williams’ poetry and its ability to represent the experience of things through biographical details or rationalist musings linked to philosophical theory. Perkins (1976) explains Williams’ poetics through biographical information, and attributes much of his style to his profession as a physician: “part of his theory of poetry—for example, the emphasis he placed on immediacy and spontaneity—were motivated, among other considerations, by the need of a busy doctor to justify a type of poetry he had time to write” (p. 545). While biographical details undoubtedly offer insights into the origin of Williams’ style, they do little to address the ability of his verse achieve his goal of recreating the experience of a thing.

Similarly, critics rely on rationalistic philosophy to determine the efficacy of Williams’ verse. For instance, Easterbrook (1994) writes, “Descartes’s mind-body dilemma does not differ from Williams’s word-thing problem” (p. 36), and Frye (1989) states, “One of these [ontological reassurances] is that the artist’s relation to nature is not causal; Williams’ poems become sullen in the company of Edmund Husserl’s phenomenological applications” (p. 12). These critics apply

previous philosophical ideas to Williams' poetry in order to understand its effect on the reader. Their conclusions of Williams' efficacy—Easterbrook suggests failure while Frye implies success—stem from their own musings, and do not rest on empirical support. While their tactics shed light on Williams' work and the traditions from which it stems, their methods rely on strict rationalism and thoughts of human experiences, instead of empirical studies the impact of linguistic representations of an object on our experiences.

Although empirical scientific research is seldom used as a lens for literary criticism, the GRAPES model for neural representations of object properties, proposed by Martin (2016), elucidates and ultimately supports Williams' success in capturing the experience of an object through verse. The GRAPES model depicts how “mental representations become connected to the things they refer to in the world” and suggests a structure for neural representations of concept primitives, universal object-associated properties, such as color, physical form, the way a thing moves, and the affective response associated with the thing (Martin, 2016, p. 980). According to the GRAPES model, the brain stores these concept primitives as a distributed representation across our perception, action, and emotion systems, and a growing body of neuroimaging data supports the model's claims. For instance, neuroimaging data finds that neural activity increases in brain regions associated with color perception when participants were asked to name a color associated with an object (“yellow” when prompted with “pencil”). Similarly, brain regions associated with motion perception responded with increased activity in response to naming an object-associated action (“write” when prompted with “pencil”). This overlap of neural activity when accessing object-property information and when perceiving/sensing an object suggests that the processes related to concepts and sensation/perception are emmeshed. In addition to areas associated with color and motion

perception activating while accessing object concepts, areas associated with taste activate when participants are presented with images of appetizing food. This data suggests that Williams' linguistically image-rich verse triggers conceptual primitives of the objects he seeks to represent. Moreover, importantly for Williams' poetics, conceptual primitives can be accessed through a variety of modalities: "information about how dogs look is accessed automatically when we hear a bark, or when we read or hear the word 'dog'" (Martin, 2016, p. 980.) In many ways, the GRAPES model suggests that Williams achieves his goal of contact and provides "the thing and the feeling of that thing."

Despite the similarities in activation, Martin (2016) does not suggest that accessing conceptual primitives is the same as actually experiencing or perceiving an object. Moreover, while proponents of grounded cognition believe and argue that stored object-concept information is formatted in a depictive, iconic, modality-specific way, current neuroimaging techniques cannot rule out the possibility of abstract, language-like representations that are merely interactive with action, perception, and emotion systems. Nonetheless, despite the continued debate of the format of cognitive primitives' representations, the GRAPES model still asserts Williams' poetry as achieving its goal of most closely representing the experience of a thing. His words activate conceptual primitives, which are represented across the brain areas associated with action, perception, and emotion—the basic aspects of the thing.

Williams' poem "The Great Figure" (see Appendix A) exemplifies his recreations of the experience of an object, and demonstrates how his poetry accesses cognitive primitives to elicit object-associated responses in the reader. He begins with images of "rain" and "lights." Williams' clear language is free of specifiers or flowery verbiage, and instead of adjectives to describe the night, he employs nouns to evoke the conceptual primitive of rain and lights,

according to the GRAPES model their form and feeling. The “figure 5 / in gold” is separated from its semantic meaning. Normally “5” refers to a specific cluster of objects, but here he presents “the figure 5”—using its visual symbol instead of alphabetic representation—to evoke its shape and bring us close to the experience of the thing. Because 5 is not associated with a color, he provides the thing’s hue: “gold.” He adds context to the figure: “on a red / firetruck.” Again, his language is simple, the bare-bones description being enough, the GRAPES model suggests, to elicit neural responses associated with a firetruck’s object properties. The inclusion of superfluous modifiers and metaphors would only further remove the poem from the experience of the referent by adding unnecessary layers of abstraction to the representation, noise and static in the activation of conceptual primitives.

Williams continues with linguistic representations of motion (“moving / tense / unheeded”), and again, the GRAPES model suggests these action words trigger neural activity in the brain region associated with motion perception. He further adds representations of auditory stimuli: “gong clangs / siren howls.” Just as pictures of musical instruments produce increased activity in audition-perception regions (Martin, 2016), so too does his auditory imagery. Importantly, Williams’ pared-down descriptions evoke a visceral, emotional response, one of urgency and danger. The GRAPES model suggests this arises from a distributed representation of the object properties across the emotional system, as well as perceptual and action systems. Simply put, the GRAPES model supports that Williams’ poetics accurately represent the experience of a thing on a neural level.

In addition to his chief goal of recreating the experience of a thing, critics have asserted that Williams viewed his poetry as way of gathering information about the world, his poems “epistemologically motivated” (Oakey, 2015, p. 199). Oakey (2015) writes, “Epistemology was

not just an incidental concern for Williams... but rather explicitly shaped the way his poems configured relationships between subject and object, and established the poem as an arena of knowledge formation” (p. 199). Williams’ famous assertion “no ideas but in things” (Ramazani et al., 2003, p. 285) lies at the center of his epistemology of using poetry to gather and convey information about the world, and “grounded” theories of cognitive representations of abstract concepts, namely Martin (2016) and Hayes and Kraemer (2017), support Williams’ tactic of using the tangible to convey the abstract.

Simply put, the GRAPES model suggests that even abstract concepts are “grounded”—ultimately represented—in action, perception, and emotion systems in the brain; therefore, abstract concepts such as bravery or peril are represented through tangible object properties similar to those of, for instance, a firetruck (Martin, 2016). Hayes and Kraemer (2017) demonstrate the utility of grounding abstract concepts, specifically scientific concepts such as mechanical force, in body-centered metaphors to illustrate the concept bolsters our ability to learn those concepts. While their article only discusses the efficacy of grounded cognitions in conveying abstract concepts from science, their findings may be applied while evaluating the efficacy of Williams’ “poetry of things” to convey abstract ideas.

Williams’ “The Red Wheelbarrow” (see Appendix B) provides a prime example of the way Williams represents abstract ideas through quotidian and concrete objects. He begins with ambiguity and moves towards the tangible: “so much depends / upon // a red wheel / barrow.” What “much” refers to remains distant and open to possibilities. Taken simply, Williams suggests that “so much” of rural life depends on simple tools, such as a wheelbarrow. However, the lack of an antecedent for “much” allows for nonliteral interpretations, and the poem can be read as a metaphor for poetry. Williams suggests that the entirety of the poem relies on the “red

wheel / barrow // glazed with rain / water // besides the white / chickens.” Instead of using indirect and flowery language to convey his insight on the importance of the poetic image, Williams opts for tangible objects to ground the abstract literary concept in the concrete and visceral, just as Hayes and Kraemer (2017) suggest doing with abstract scientific concepts.

Simply put, empirical neuroscientific research sheds light on Williams’ ability to represent the experience of a thing and convey abstract ideas about literature through imagery of the concrete world. Importantly, these insights exemplify the importance of novel analytical lenses in understanding the impacts of literature on our minds and underscore the necessity of interdisciplinary approaches across traditionally disparate fields. Siloed information proves detrimental to our ultimate understanding of any given topic, no matter how niche. Attempts at understanding the impact of Williams’ poetry, a pediatrician’s verse that strayed from contemporary literary convention, provides a prime example of the importance of these interdisciplinary approaches and their benefits.

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Appendix A

The Great Figure

Among the rain
and lights
I saw the figure 5
in gold
on a red
firetruck
moving
tense
unheeded
to gong clangs
siren howls
and wheels rumbling
through the dark city.

(Williams, 1951, p. 230)

Appendix B

The Red Wheelbarrow

so much depends
upon

a red wheel
barrow

glazed with rain
water

beside the white
chickens

(Williams, 1951, p. 277)