Semantic Compositionality and Berkeley's Divine Language Argument[1]

Todd DeRose

Abstract: Existing commentary on Berkeley's divine language argument often fixates on Berkeley's doctrine of signs and assimilates it either to traditional design arguments or to Descartes' argument for other minds. Relatively few commentators even mention the compositional features of language, even though they "constitute the true nature of language" (Alc 4.12: 157)[2] and distinguish languages from mere sign-systems—and those who do focus on the *generativity* of language. However, it is not only nature's construction of appropriate stimuli from basic signs that demands explanation—it is also our ability easily and systematically to understand these constructions, particularly including *novel* constructions.

I. Introduction

In the fourth dialogue of *Alciphron*. Berkeley contends that nature (or the world of sense-experience) is a language in and through which the deity communicates with human beings just as directly as they do with each other. According to Berkeley, "we [see] God with our fleshly eyes as plain as we see any human person whatsoever, and he daily speaks to our senses in a manifest and clear dialect" (Alc 4.14: 159)—and there is no better evidence for the existence of another mind than to receive such linguistically-ordered communication from it.

Commentary on this argument is sparse and tends to fixate on Berkeley's doctrine of signs (roughly that ideas of sense, like words, have only arbitrary or conventional signification and need not resemble what they signify). Having interpreted it as a variation of the analogical design argument, critics typically consider only a narrow range of similarities between sense-perception and natural languages (such as "informativeness" or "arbitrary signification"), identify one or more dissimilarities, and conclude—since an argument from analogy is only as strong as the similarity between the things compared—that the argument is weak. Strikingly, however, the similarities these critics consider are often non-overlapping. Once we have collated the various points of similarity that have been identified in the literature, the argument becomes far more compelling. I will argue that enough points of similarity between the

[2] *The Works of George Berkeley Bishop of Cloyne*, eds. A.A. Luce and T.E. Jessop (9 vols.; London: Thomas Nelson and Sons Ltd, 1948-57).

language of nature and human languages have been identified (and dissimilarities rectified) to sustain a cogent analogical argument.

I will then add to the exegesis of Berkeley's argument, to further strengthen it. As it happens, only a minority of commentators have attended to the compositional features of language, which is surprising given that Berkeley says that these features "constitute the true nature of language" (Alc 4.12: 157) and appeals to them to distinguish vision as a language from other senses which merely furnish signs. Those commentators who *do* attend to them focus on generativity, or the recombination of component signs into novel compound signs. Such generativity, however, is only one of the distinctively compositional features of language. Berkeley also attends to the *productivity and systematicity* of language. It is not only the ability of nature to construct appropriate stimuli out of basic signs that cries out for explanation—it is also our ability easily and systematically to understand these constructions, particularly including those which we have never encountered before. Thus, as a slogan, it is *the fit-ness of the world for human comprehension* that cries out for explanation. To the best of my knowledge, no one has yet singled out this explanandum and incorporated it into Berkeley's argument.[3]

II. The Putative Disanalogies

Most commentators freely concede to Berkeley that the natural world resembles human language insofar as our sensations have and convey rich representational content to us "not by similitude, nor yet by inference or necessary connexion, but by arbitrary imposition just as words suggest the things signified by them" (Alc 4.10: 154). Unsurprisingly, it takes more than this for a system of signs to form a language—a fact which ostensibly makes Berkeley vulnerable to critique. I will begin by showing that the putative disanalogies that have appeared in the literature fail to undermine the argument. I will then move into the various additional positive analogies beyond arbitrary signification that previous commentators have noted.

2.1: The Language of Nature is One-Directional

Donald Baldwin,[4] E.G. King,[5] and Désirée Park[6] object that while all the languages we are familiar with involve a community of speakers and two-way communication, the language of

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[3] The closest anyone comes is Park, who writes that "A main point of Berkeley's describing sequences of ideas as language at all is to relate the world in which we live to our capacity to understand it." Désirée Park, *Complementary Notions: A Critical Study of Berkeley's Theory of Concepts* (Martinus Nijhoff: 1972), 93. However, like all too many others, she ultimately views the divine language model as little more than a figure of speech.
[4] Donald Edward Baldwin, "The Divine Visual Language in George Berkeley's *Alciphron*," University of Missouri (1978), 203.
[5] E.G. King, "Language, Berkeley, and God," *International Journal for Philosophy of Religion* 1.2 (1970): 112-23, 121.
[6] Park 1972, 93.

nature (if indeed there is one) appears to operate only in one direction: God speaks, whereas we only listen. To avoid a significant disanalogy with ordinary languages, we must also be able to communicate with God (and perhaps each other) in the language of nature.

Like Kenneth Pearce, however, I see no reason to think that the communication *is* only one directional. Pearce writes that "according to the theory of sense perception as language, our every interaction with the physical is a statement in an ongoing discourse with God himself."[7] Even if our actions never directly produce sensations in other spirits (e.g., if we should understand passages like PHK 147 to mean that Berkeley is an occasionalist with respect to the natural world), we do not need to be able to produce ideas in other spirits in order to communicate in the language of nature—in fact, in Berkeley's system, we communicate with each other in this way all the time. If God must causally mediate this communication by taking our volitions as inputs and providing ideas of sense to other finite spirits as outputs, this no more disqualifies us from communicating in the language of nature than the mediation of an email server disqualifies me from communicating with my friend in English. The same goes for our communication with an infinite spirit. Though God may not perceive by sense, God has immediate knowledge of the ideas of sense God has produced in response to our volitions; at worst, this is just one additional layer of transcription. We as humans are far from fully *competent* speakers of the language of nature (God alone is fully competent and/or fluent), but this is no obstacle to humans being speakers *simpliciter*.[8]

2.2: The Language of Nature Lacks Structure/Instructors

James Danaher[9] and Paul Olscamp[10] argue that the natural world cannot be a language in the normal sense because perceivers are alone responsible for forming empirical concepts. In Berkeley's system, supposedly, there is no innate structure in the sensible world and it is merely our mental acts of consideration which unite ideas of sense into sensible bodies. If this is so, then God cannot communicate God's own concepts to us—and it is a basic requirement of any true language that it be "capable of producing internal states of understanding between communicants."[11]

One obvious reply would be that the liberty we have as individuals to form concepts is no obstacle to normal communication between human beings. Danaher counters, however, that the cases are not the same. With a language like English, he writes, "the liberty we naturally have to form concepts is eliminated by a myriad of instructors who reinforce the culturally

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[7] Kenneth Pearce, "The Semantics of Sense Perception in Berkeley," *Religious Studies* 44 (2008), 256.
[8] Note that Pearce believes humans can be speakers of the divine language only in an "extended" sense, whereas Manuel Fasko and I agree that humans can be speakers in the very same sense that God is. The debate is ongoing.
[9] James Danaher, "Is Berkeley's World a Divine Language?" *Modern Theology* 18.3 (2002).
[10] Paul Olscamp, *The Moral Philosophy of George Berkeley* (Martinus Nijhoff: 1970), 28-29.
[11] Danaher 2002, 369.

acceptable extensions of a specific word or phrase in order that our concepts form in such a way as to reflect the meaning of our culture or language community."[12] In contrast, he claims, there are no such instructors for the divine language.

I reply that there is a perfectly reasonable sense in which we *do* receive instruction in the divine language. Although the contingent patterns of associations between ideas of sense that God ordains do not necessitate that we adopt any particular conceptual schema, it is certainly the case that some schemas conduce to our survival and well-being better than others. If we did not learn to group certain ideas of sense into individual animals and plants, for example, we would quickly starve. Thus, we are constantly being conditioned to bring our concepts into line with those of the author of nature, just as our linguistic communities constantly condition us to bring our use of words into line with other people. This is why Berkeley writes that by means of the language of nature "we are taught and admonished what to shun, and what to pursue; and are directed how to regulate our motions" (Alc 4.7: 149).

Another solution comes from Pearce: there *is* structure in Berkeley's world. In PHK 34, Berkeley states that there is a *rerum natura*. Pearce takes this to mean "an independent, objective reality to which our system of body talk ought to conform, [one which] consists in the steadiness, order, and coherence of the sensory ideas caused in us by God."[13] These orderly patterns condition us in the matter I described above, but since God speaking and us interpreting are both necessary for successful communication the construction of sensible bodies is a *cooperative* endeavor. As Pearce writes, "bodies can be regarded as a joint product of God's activity as speaker and our activities as interpreters and grammarians of nature."[14] If so, then empirical concepts are not purely subjective—and as grammarians of nature, we come to recognize object-identification and classification as the *lexicography* of the language of nature and the laws of nature as its *syntax.*[15]

2.3: Expressions in the Language of Nature Are Not Truth-Apt

A closely related issue is whether expressions in the language of nature are capable of truth and falsity—for if they are not, this would mark a major point of disanalogy between divine and human languages. As Walter Creery writes, if expressions in the language of nature have no

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[12] Danaher 2002, 369.
[13] Kenneth Pearce, *Language and the Structure of Berkeley's World* (Oxford University Press, 2017), 173.
[14] Ibid., 3.
[15] For more on the syntax and lexicography of nature, see Pearce 2017, 186 and 204. The most relevant primary texts are PHK 108-110 and *Siris* 252. For more on how the language of nature as a whole (and not just its lexicon) is a public social practice, see Kenneth Pearce, "Berkeley on Unperceived Objects and the Publicity of Language," *History of Philosophy Quarterly* 34.3 (2017), 231-250.

truth-values, then "one cannot say that the Author of Nature asserts anything"[16]—and surely one of the main functions of language is to make assertions.

The most obvious solution would be to identify true expressions in the language of nature with veridical perceptions, and false expressions with non-veridical perceptions. Unfortunately, due to Berkeley's analysis of illusion, this is too simple to work. If there really is a bent visual percept of an oar, and if error exists only when someone infers that the oar will still appear bent when removed from the water (as Berkeley asserts at DHP 238), then the concepts of truth and falsity could apply to our sensations only on the level of suggestion. If truth and falsity are contingent upon the success of our inferences, then no expressions in the language of nature could be true or false in themselves (as at least some expressions in our human languages appear to be).

We could, of course, simply disavow Berkeley's analysis of illusion. Many contemporary philosophers of perception, in fact, *do* think that percepts are capable of truth and falsity. A visual experience of a tree has as part of its content, for example, *that there is a tree situated in front of me*. As Declan Smithies writes, "Perceptual experience is not just a matter of having sensations. Rather, perceptual experience represents its content with assertive force."[17] He argues, moreover, that "perceptual experience justifies believing its contents *only because* it represents its contents as true" (emphasis mine).[18] If he is correct, there is no great mystery about the ability of expressions in the language of nature to take truth-values.

While this is an intriguing option, and while I would prefer that the divine language argument (like much of the rest of *Alciphron*) not depend on Berkeley's views in his earlier works, I also do not want it to depend on philosophical theses inconsistent with said views. Instead, the solution I favor is to specify what in the natural world corresponds to letters, words, and sentences, and point out that it is only some *sentences* that need to be able to have truth-values. Additionally, if the natural world contains these distinctions (that is to say, if it has an identifiable alphabet, morphology, lexicon, etc.) then the analogy between divine and human languages becomes that much stronger.

Berkeley occasionally refers to our sensations as "natural letters" (*Siris* 252).[19] This is telling, especially once we consider that the *letters* in a book are what is immediately perceived when we read (DHP 174) and that ideas are grouped into bodies for the same reason letters are combined into words (PHK 65). The implication is that sensible bodies correspond not to

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[16] Walter Creery, "Berkeley's Argument for a Divine Visual Language," *International Journal for Philosophy of Religion* 3.4 (1972): 219.

[17] Declan Smithies, *The Epistemic Role of Consciousness* (Oxford University Press: 2019), 96.

[18] Ibid., 93.

[19] For more on the *alphabet* of nature, see Colin Turbayne, "Berkeley's Metaphysical Grammar," in *Berkeley: Principles of Human Knowledge, Text and Critical Essays*, ed. Colin Turbayne (Bobbs-Merrill: 1970).

sentences but to *words*,[20] and so perceptual experiences of particular objects (like the bent oar) are not the sort of thing that Berkeley ever intended to be truth-apt. As Pearce writes, "although Atherton is correct that grouping ideas into objects is part of the process of interpretation, it is only the beginning of this process. This combining activity is part of *parsing* the language of nature, which is merely a preliminary to interpretation proper."[21] From this perspective, the character of our immediate sensations may be no more than the orthography of the language of nature.

So much for the letters and words. As for the sentences, my own view is that they are visual or sensory *scenes*.[22] Unbeknownst to Berkeley, some contemporary vision scientists (chief among them Melissa Le-Hoa Võ at Goethe University Frankfurt) have begun studying so-called "scene grammar" in order to better understand and explain visual cognition. On her models, which have seen largely unprecedented empirical success, "objects in scenes—like words in sentences—are arranged according to a 'grammar' which allows us to immediately understand objects and scenes we have never seen before."[23] Following Võ, an example of a visual scene that violates a semantic rule would be a Penrose Staircase or an Escher diagram (which represent impossible object-relationships). An example that violates a syntactic rule would be one in which a beer bottle is floating unsupported in mid-air (which coheres with the view that laws of nature are the syntactic rules of the language of nature). An example of a visual scene that merely violates a pragmatic norm would be one in which a kitchen sink is anchored to the ceiling.[24] Absent a surrounding scene that enables us to make action-guiding inferences, we should no more expect the perception of a single sensible body to be truth-evaluable than we expect most words taken in isolation to be truth-evaluable.

Pearce's approach is similar, minus the appeal to scene grammar. Whereas I wish explicitly to identify these sentences with sensory scenes, Pearce prefers to think of the meanings expressed in nature in more holistic terms. On his view, it is our ability to make empirical predictions based on our perceptions that endows the *discourse* of nature with meaning. Accordingly, the discourse of nature is *about* finite minds because it enables us to predict their

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[20] Or better, *lexemes*.

[21] Pearce 2017, 185-186.

[22] As for the propositions these sentences express, my own view (which I do not here defend) is that they are the subjunctive conditionals we are entitled to believe on the basis of the relevant perceptions—the subjunctive conditionals about the experiences of finite spirits that a phenomenalist takes our talk about the relevant sensible bodies to really mean. I am also open to a closely analogous view on which they are indicative propositions about God's standing volitions to produce such-and-such ideas in finite spirits under such-and-such circumstances.

[23] Melissa Le-Hoa Võ, "Reading Scenes: How Scene Grammar Guides Attention and Perception in Real-World Environments" (2018), URL = <https://www.visionsciences.org/2018-yia/>.

[24] It is worth noting that Pearce's view on pragmatics has evolved. Whereas the analysis of Berkeley's philosophy of language in Pearce 2008 (see p. 263) leaves room for a distinction between pragmatics and semantics, the analysis in Pearce 2017 (see p. 171) does not. As of 2020, I myself have no settled opinion on this subject—though I speculate that such a distinction may enable us to develop a uniquely Berkeleyan account of *art* in terms of human utterances/inscriptions in the language of nature that violate certain sorts of pragmatic norms.

experiences.[25] Regardless of the further details of our respective views, we have the result about truth and falsity that we are looking for: "the language God speaks is perfectly capable of expressing falsehoods, for God could easily tell me things about other minds that are not so."[26]

2.4: The Language of Nature Lacks a Referential Function

Creery objects that while human languages have a referential function, the language of nature does not—and moreover, cannot, given Berkeley's rejection of material substance. He writes that "the words and expressions of the phenomenal language cannot be said to be *about* anything at all."[27]

Creery's mistake is in thinking that extra-mental objects are the only things to which the phenomenal language could refer. As shown above, sentences in the language of nature can be about finite spirits and their sensations instead.

We might still ask about the referential function of mere signs, since Berkeley seems to think that there are sign-relations even between individual ideas. Pearce points out, however, that this is actually a similarity, and not a difference, with human languages: "*Like most of English*, most of the divine language consists in pure 'inference tickets' that do not make direct contact with anything extra-linguistic. This is what the allegedly problematic self-referential character of Berkeley's language of nature amounts to."[28]

2.5: The Language of Nature is Universal and Spoken by God

In the course of criticizing the divine language argument, Olscamp writes that "among the *significant differences* between the two languages are the facts that the signs of nature are created by God, and that they are the same in all nations and climes, and for all people" (emphasis mine).[29] I agree that these are disanalogies, but I disagree that they matter.

To the first point, it would be painfully *ad hoc* (if not circular) to cite the fact that the language of nature would be spoken by God (and not just humans) as a reason to reject an analogical argument intended to show that nature is a language spoken by God. And yet, Olscamp is not the only one to cite this fact as a "significant" disanalogy. King, for example, writes that "the initial difference is that the communication involves God and man, and all other languages involve only men" and correspondingly that "it is because the divine visual language is divine

[25] See Pearce 2017, 202.
[26] Ibid., 203.
[27] Creery 1972, 219.
[28] Pearce 2017, 202.
[29] Olscamp 1970, 38.

that we need to extend the word 'language' in the first place."[30] He acknowledges that this is not a "crushing" objection, but I see no reason to view it as an objection in the first place.

To the second point, recall David Hume. Cleanthes, Hume's advocate for theism, uses a thought experiment in which there is an articulate voice emanating from the clouds which speaks to human peoples each in their native tongue, conveying religious and moral information. Philo, Hume's skeptic, concedes that the existence of such a voice would indeed give us good reason to believe in God, even though "this extraordinary voice, by its loudness, extent, and flexibility to all languages, bears so little analogy to any human voice."[31] What Hume appears here to concede, rightly in my opinion, is that not *all* dissimilarities between two effects are of a kind that undermines an argument from analogy about their causes. It is deeply unintuitive (to me at least) that a mind could become so intelligent that it ceased to be a mind. In much the same way, it is deeply unintuitive that a language could become so universal or articulate that it ceased to be a language.

Philo remains unconvinced, of course, because neither he nor Cleanthes seriously entertains— as Berkeley does—the thought that any such voice exists in the actual world. Instead, they immediately move on to discuss a "vegetating library" in which books reproduce like biological organisms. After dismissing this second thought experiment on the grounds that no books in our universe actually reproduce in this way, they move on to discuss biological organisms themselves—and this because, supposedly, "the anatomy of an animal affords many stronger instances of design than the perusal of Livy or Tacitus."[32] From a Berkeleyan perspective, Cleanthes has made a critical mistake in allowing this shift from linguistics to biology—for if he had mounted a genuinely linguistic design argument, Hume's various counterarguments that follow would be largely beside the point.[33][34]

III. Additional Positive Analogies

I have addressed all the main disanalogies that critics have raised. If this seems like a short list, it is because most have critiqued Berkeley's argument for a paucity of similarities rather than for putative dissimilarities. Olscamp writes, for example, that "Berkeley did not hold that nature

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[30] King 1970, 121.

[31] David Hume, *Dialogues and Natural History of Religion*, 3.3.

[32] Ibid., 3.6.

[33] Excepting Hume's polytheism objection (*Dialogues* 5.9), for just as the world might have multiple divine designers so too might the language of nature have multiple divine speakers. Regarding how the divine language argument sidesteps Hume's other objections, see Tom Stoneham, "Response to Atherton: No Atheism without Scepticism," in *Debates in Modern Philosophy: Essential Readings and Contemporary Responses*, eds. Stewart Duncan and Antonia LoLordo (Routledge: 2013), 220.

[34] "I do think it's interesting that Hume, in choosing to discuss both the voice in the clouds and the vegetating library, is perhaps suggesting that a genuinely linguistic argument from design would have some special force" (Kenneth Winkler, personal communication, 2016).

and artificial languages had all or even most of their properties in common, for clearly this would be silly."[35] *Is* it silly? Let us see.

Several important positive analogies have come up already.[36] I now turn to the other positive analogies that commentators have noted, and then to my own contribution.

3.1: The Language of Nature is Capable of Indirect Reference

Pearce, citing PHK 151 and Alc 4.14: 159-160, observes that "after claiming that sense perception is a language by which God speaks to us, Berkeley goes on to derive truths about God not from any particular perceptions but rather from the language as a whole."[37] Though information about God may or may not be directly encoded in nature, nature refers indirectly to God. Berkeley suggests as much when he writes that "we do at all times and in all places perceive manifest tokens of the divinity: everything we see, hear, feel, or any wise perceive by sense, being a sign or effect of the Power of God" (PHK 148). Even if these signs do not refer to God in the normal semiotic sense, they may enable us to "gain knowledge of God in the way that one may gain knowledge of an author by reading her novel, even if no part of the novel is autobiographical."[38]

3.2: The Language of Nature Exhibits Displacement

Paul Olscamp[39] and Talia Mae Bettcher[40] are the only two commentators to specifically note the role of *displacement*, as it is called in linguistics, in Berkeley's argument. Displacement is the ability of language to convey information about states of affairs arbitrarily distant in both space and time. Berkeley twice cites this ability as a similarity between human and divine languages (Alc 4.7: 149, 4.12: 157). It seems uncontroversial that the language of nature exhibits displacement both temporally and spatially; a fossilized footprint can tell us that a dinosaur was present millions of years ago, and a telescope can tell us facts about objects lightyears away that help us reason about states of affairs in the here and now. Displacement is not a particularly compelling basis for an argument on its own (since mere signs may be able to exhibit it), but it is one more positive analogy to add to our growing list.

3.3: The Language of Nature Can Communicate Without Corresponding Ideas

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[35] Olscamp 1970, 37.

[36] For reference, these include arbitrary signification, alphabet, lexicon, syntax, morphology, linguistic community, and propositional structure.

[37] Pearce 2008, 263.

[38] Pearce 2017, 202.

[39] Olscamp 1970, 16-19.

[40] Talia Mae Bettcher, "Divine Governance," in *Berkeley: A Guide for the Perplexed* (Continuum International Publishing Group: 2008), 121-143.

Olscamp helpfully notes that "Just as we do not have ideas occurring to us each and every time that we use signs in artificial languages, so the occurrence of images in actual cognition does not happen every time we use the signs of the natural language."[41] This similarity fits well with Berkeley's anti-Lockean views of language more generally. Berkeley observes that "words may not be insignificant, although they should not every time they are used, excite the ideas they signify in our minds" (Alc 7.5: 291-292). Armed with this insight, nature resembles a language insofar as it can (and often does) communicate using non-iconic forms of representation—for example, "a threat of danger [is] enough to make us afraid, even if we do not think of any particular evil that is likely to befall us or even form an idea of danger in the abstract" (PHK 20).

Closely related is a point by Danaher. In human languages, he writes, "a sound or letter could be missing in a given communication but we could still detect the meaning of the missing sound or letter because of the surrounding sounds or letters."[42] The same is true in the language of nature. We might never actually perceive the underside of a table, but we can still interpret our experience of the table appropriately due to the surrounding contextual clues.

3.4: The Language of Nature Can Express the Same Meanings through Multiple Modalities

Berkeley tells us that "visible figures represent tangible figures much after the same manner that written words do sounds" (NTV 143). The relationship between written words and their corresponding sounds is not, however, one of normal reference or signification. Instead, the written word "table" and the spoken word "table" both signify *tables*. It follows that "visual ideas signify tangible stimuli in the way written words signify spoken words, rather than in the way words signify their referents."[43] If we take sensible bodies to be the words in the language of nature, as I earlier discussed, then we have another positive analogy: both human and divine languages allow multiple representative modalities for the same meanings, for the same word can be represented using letters or sounds just as the same table can be seen or touched.

3.5: The Language of Nature is Interpretable Absent a Systematization of its Semantics

Just as one need not be a linguist or a grammarian to understand a language, one need not be a scientist to navigate the world. As Berkeley observes, "a man may understand natural signs well without being able to say by what rule one event is a sign of another" (PHK 108). Herein lies a further positive analogy: "As with human language, we can, in most cases, successfully interpret the perceptual language even in the absence of a rigorous systematization of semantics."[44]

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[41] Olscamp 1970, 37.
[42] Danaher 2002, 362.
[43] Pearce 2017, 181. This is Colin Turbayne's interpretation, with which Pearce and I agree (while Fasko disagrees).
[44] Pearce 2008, 267.

IV. Descartes and Compositionality

Pearce is one of the commentators on Berkeley most attuned to the compositional features of language—but he is interested mainly in how the view of nature as a language informs other aspects of Berkeley's philosophy and does not directly apply these insights to the divine language argument.[45] He writes that Berkeley's requirement that the signs constituting a language be "apposite" (Alc 4.7: 149) means that they must be "organized into a system in such a way that it is easy to construct the complex signs appropriate to any given situation."[46] This sort of flexibility "is to be obtained by articulation and combination—in other words, by the compositionality of language. The basic signs must be put together to compose complex signs so as to be capable of dealing with indefinitely many situations."[47]

So far so good—but regarding the divine language argument Pearce says just that "it is the ability to judge which sign is apposite in a given situation that Alciphron takes as evidence of intelligent agency, [and] if this is Alciphron's point, then he is likely following Descartes."[48] Here I must diverge; there are more compositional features of language than the generativity that Pearce (and others) discuss, and more to Berkeley's argument than Descartes' argument for the existence of other minds in *The Discourse on Method*.[49]

Pearce is one of several who think that Berkeley's argument is an adaptation of Descartes'. According to David Kline, Descartes recognizes three features of linguistic behavior that are the marks of intelligence: (1) the sign system is composed of "arbitrary" signs, (2) there is generativity, or the novel use of signs through recombination of component signs, and (3) the linguistic behavior exhibits understanding by being appropriate to the background environment. Kline spends most of his time on the third. He contrasts *appropriate* behavior with the *tropistic* behavior of machines and animals, writing that "we must be able to distinguish the object from its environment and then assign goals to the object. If, as the environment changes, the object behaves in accord with its goals we can speak of the behavior being appropriate."[50] Applying these ideas to Berkeley's argument, Kline identifies the

[45] Dancy's analysis is similar in these respects. See Jonathan Dancy, *Berkeley: An Introduction* (Blackwell: 1987), 114-122.

[46] Pearce 2017, 177.

[47] Ibid.

[48] Ibid.

[49] Additional reasons to question the Cartesian interpretation beyond those I give in this paper come from Amanda Printz and Keota Fields. On the one hand, "it is certainly questionable whether Berkeley would erect a proof for God's existence on the basis of a Cartesian account of language" (Amanda Lewis Printz, "The Scope and Significance of George Berkeley's Language Model," University of Southern California, 2007, 106). On the other, "the divine language argument omits the causal principles needed to understand it as modeled on Descartes' transcendental argument for other minds" (Keota Fields, "The World as a Divine Text," in *Berkeley: Ideas, Immaterialism, and Objective Presence* (Lexington Books: 2011), 199-228, 8.3).

[50] David Kline, "Berkeley's Divine Language Argument," in *Essays on the Philosophy of George Berkeley*, ed. Ernest Sosa (Springer: 1987), 195.

behavior/environment distinction with the distinction between vision and the other senses, and identifies the goal of the visual language with informing us about tangibilia. Because visual signs respond to widespread contextual variation in the environment in rule-governed ways, and always consistently with the goal of informing us about tangibilia, vision is *appropriate* in the relevant sense.

Kline's approach would indeed explain the primacy of *visual* language that Berkeley suggests when he writes of an "optic language" (Alc 4.14: 159) and that while "other senses may indeed furnish *signs* … It is the articulation, combination, copiousness, extensive and general use, and easy application of signs (all which are commonly found in vision) that constitute the true nature of language" (Alc 4.12: 157). However, I follow Pearce, Printz,[51] Baldwin,[52] and Olscamp,[53] all of whom contend that Berkeley's considered opinion is that *all the phenomena of nature* constitute a language. They cite PHK 66, PHK 108, and *Siris* 252-4 to make their case, but there is textual evidence within *Alciphron* as well—e.g., when Berkeley says that God "speaks to our senses" (Alc 4.14: 159). Drawing a firm distinction between vision and the other senses is not mandatory in the face of these passages; it is more important that we do justice to the language/sign-system distinction, since this is what undergirds the alleged primacy of vision.[54]

If we identify the divine language with the entire system of nature (as I think we should), then Descartes' behavior/environment distinction is not available to us. That said, there is another even deeper problem for Kline's notion of "appropriateness": the sort of linguistic behavior that is best explained by an intelligent mind does not require any contextual variation whatsoever. A copy of the *Iliad* says exactly the same things no matter where I take it or what I happen to yell at its pages, and even if I begin reciting it aloud in the most inappropriate of contexts this does nothing whatsoever to diminish the conviction that it must have had one or more intelligent authors. What gives rise to this conviction, among other things, is that the linguistic behavior is *apposite* in Berkeley's sense, not *appropriate* in Descartes' sense—the *Iliad* is composed of signs which, given the semantic and syntactic rules of the sign-system, could be recombined to form an infinite variety of other equally intelligible sentences. Such generativity may help enable appropriate use, but such use is not essential to the sort of inference we are trying to make.[55]

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[51] Printz 2007, 65.
[52] Baldwin 1978, 42.
[53] Olscamp 1970, 37.
[54] See also Pearce 2017, 181. Pearce proposes a compromise solution on which non-visual signs are "adjunct signs" (perhaps analogous to stoplights or body language) which are meaningful in virtue of their many rule-governed connections with a linguistic practice but do not fit into the language's syntax. Fasko has suggested (personal communication, 2019) the alternative compromise solution that non-visual signs may have *phonetic* significance (perhaps analogous to *tone* or *emphasis*).
[55] I stand by this paragraph so long as we are considering the divine language argument as an argument merely for God's *existence* and not for God's *providential governance*. More recently, I have argued that Berkeley's language model includes both written and spoken elements—corresponding to *monologic* and *dialogic* communication

The next point to make is that while Descartes does indeed recognize the generative capacities of language, he does not—as Berkeley does—recognize the *infinite* generative capacities of language. He discusses a machine's inability to "arrange words differently in order to respond to the sense of all that which will be said in its presence"[56] contrasted with humans' ability to "invent for themselves various signs by means of which they make themselves understood,"[57] but at no point does he suggest that these generative abilities are *unbounded* or that they involve grammatical rules that can be applied recursively and therefore infinitely—instead saying only that it is "morally impossible that there would be enough different organs in a machine to make it act in all the circumstances of life in the same way as our reason makes us to act."[58] Berkeley, in contrast, writes that visual signs "being *infinitely* diversified and combined form a language" (Alc 4.10: 154) and that God communicates by "compounding them and disposing them to suggest and exhibit an *endless* variety of objects" (Alc 4.12: 157).[59]

Finally, while Descartes recognizes the generativity of language, he does not recognize the *productivity and systematicity* of language. Competent speakers of a language "can understand a large—perhaps infinitely large—collection of complex expressions the first time we encounter them" (productivity), and "if we understand some complex expressions we tend to understand others that can be obtained by recombining their constituents" (systematicity).[60] Both phenomena pertain to the radical intelligibility of language; it is one thing for a sign system to allow meaningful complex signs to be constructed out of basic signs, and quite another for these meanings to be readily transparent to speakers of the language. This is why Berkeley is careful to add "general use and easy application of signs" (Alc 4.12: 157) to a list of linguistic features that already includes generativity ("articulation, combination, variety, copiousness"). Since nothing can be easier or harder for an omnipotent spirit to do, and finite spirits are not directly involved in the production/recombination of sensible signs, "easy application of signs" can only refer to the ease with which finite spirits interpret the signs in the language of nature. Likewise, "general use" suggests that our knowledge of the meanings of signs generalizes across contexts.

Berkeley further remarks that the language of nature "is learned with so little pains; it expresses the differences of things so clearly and aptly; it instructs with such facility and dispatch, by one glance of the eye conveying a greater variety of advices, and a more distinct

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respectively—and that the language model must include the latter if his emphatic claims to have demonstrated divine providence are to be intelligible. "Dialogic" is roughly analogous to Kline's "appropriateness": communication that exhibits contextually-appropriate responsiveness to our own actions and utterances.

[56] René Descartes, *The Discourse on Method*, 5.10.

[57] Ibid., 5.11

[58] Ibid., 5.10.

[59] Both emphases mine.

[60] Zoltán Gendler Szabó, "Compositionality," *The Stanford Encyclopedia of Philosophy* (Fall 2013 Edition), Edward N. Zalta (ed.), URL = <http://plato.stanford.edu/archives/fall2013/entries/compositionality/>.

knowledge of things, than could be got by a discourse of several hours" (Alc 4.15: 160). His argument is thus based—in part—on the fact that human beings not only have an unbounded ability easily and systematically to understand *sentences* of human language (including those they have never encountered before) but an unbounded ability easily and systematically to understand *sensory experiences* (including those they have never encountered before)—and this *by one glance of the eye*. Just as compositional grammar is commonly cited as the best explanation of the productivity and systematicity of human languages, so is it the best explanation of the productivity and systematicity of our perceptions—and such compositional grammar plausibly belongs only to languages. That perception does in fact exhibit the same sort of productivity and systematicity may be a subject of debate, but it is hardly unreasonable in view both of the empirical research into scene grammar (see §2.3 above) and of everyday experience. We encounter novel visual scenes all the time, and in most cases have no difficulty drawing the normal range of action-guiding inferences and successfully navigating our environment.

Of course, casting Berkeley's argument in these terms raises an important concern: how do we know that the linguistic structure we observe is intrinsic to nature (i.e., imposed on it by another mind) rather than a product of our own cognitive apparatus (e.g., imposed on it by our own subconscious minds in order to process our experiences more efficiently, as Chomsky might have it)?

One answer is to invoke the transparency of the mental and say that we know by introspection that we are not the source of the rich and complex structure we perceive in nature (just as Berkeley says that we can know by introspection that we are not the source of our ideas of sense in general; see PHK 146). While I do think that Berkeley believes in the transparency of the mental, taking this approach would make the divine language argument depend on Berkeley's antecedent metaphysics (something I would like to avoid given how little a role they play in *Alciphron* in general). A better answer is this: we *do not* know—and in fact, we *cannot* know, especially given how little we know about the extent to which our subconscious cognition conditions our perception. This is not to give up the argument for lost, however—for the same problem can be raised about our knowledge of other finite spirits. Berkeley has at his disposal an excellent *tu quoque*: How do we know that the behavior we observe in other human beings is intrinsically linguistic rather than a product of our own cognitive apparatus? We do not, and we cannot—but that does not stop our belief in other minds from being justified, and so it should not stop our belief in God from being justified.

Alvin Plantinga famously contends that the best argument for other minds shares the same defect as the teleological argument.[61] Rather than accept skepticism, however, he concludes that the obvious rationality of belief in other minds entails the rationality of belief in God.

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[61] Alvin Plantinga, *God and Other Minds* (Cornell University Press: 1990).

Though their respective arguments share very little in substance, we can see Berkeley as engaged in the same kind of endeavor. As he states, the divine language argument gives us "*as much* reason to think God speaks to your eyes, as you can have for thinking any particular person speaks to your ears" (Alc 4.12: 157, emphasis mine).

Admittedly, Berkley does then go on to claim that the operations of nature are "utterly inexplicable and unaccountable" (Alc 4.14: 160) by any scientific principles, which suggests he thinks the argument provides far better evidence for God's existence than we have for other finite minds. He is not under any obligation to prove this claim, however. All he needs to do is show that there is at least as much reason to attribute the language of nature to the operations of an external mind as there is to attribute the linguistic behavior of another human being to the operations of an external mind. Such an inference could go through even if the operations of finite and infinite minds alike turned out to be entirely explicable by scientific laws. As King points out, "we so associate speaking with persons that we conclude there was a person nearby if we can rule out an animal or hallucination and so forth even if we cannot detect the person or even evidence that he was there. The move from speaking to a person is often a conceptual move."[62] We are free to leave the causal relationship between languages and minds unanalyzed so long as we are only trying to prove that knowledge of God is on an equal footing with knowledge of other minds.

I should note that Berkeley's argument need not be fully compelling on its own in order to be of interest and value to contemporary philosophers of religion. This is because the argument rests on evidence largely incommensurate with the sort of evidence typically cited by traditional nomological, teleological, or cosmic fine-tuning design arguments. We could easily imagine, for example, a world with cosmological constants fine-tuned for life but which lacked the linguistic structure Berkeley claims to observe (or vice-versa). However much or little Berkeley's argument ultimately adds to the credence we ought to give to theism, it should be cumulative with other *a posteriori* arguments.

V. Conclusion

While acknowledging that Berkeley has shown that nature exhibits some characteristics of language, King asks "would he be able to satisfy a description of language used in empirical linguistics?"[63] This is not a fair question, because a satisfactory definition of language in empirical linguistics has not been forthcoming. Perhaps that will change, but the best that we can do for now is to weigh as wide a variety of generally accepted aspects of language as possible. In light of those that I have highlighted, we can read the divine language argument as

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[62] King, 122.
[63] Ibid., 117.

a challenge: Berkeley defies us to find a plausible definition of language which is empirically adequate for all human languages while at the same time excluding nature itself.

Creery writes, "No doubt the forcefulness of the argument is increased if the set of characteristics identified for the concept of 'language' is as large as possible."[64] Accordingly, I have tried to show that this set is much larger than has been hitherto appreciated. Even so, I do not claim that Berkeley's argument is conclusive—there may be many other important analogies and disanalogies to consider[65]—but it is hardly "silly," as Olscamp would have it.

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[64] Creery, 214.

[65] For example, I have yet to see substantive analysis of *part of speech*, *tense*, or *grammatical mood* in the language of nature.