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Laura Berchielli

► **To cite this version:**

Laura Berchielli. Berkeley on Language in the 'New Theory of Vision' and the 'Principles'. 2010.
halshs-00501841v1

HAL Id: halshs-00501841

<https://shs.hal.science/halshs-00501841v1>

Preprint submitted on 12 Jul 2010 (v1), last revised 9 May 2011 (v2)

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Berkeley on Language in the *Theory of Vision* and the *Principles*

In the seventeenth and eighteenth centuries a model that might be called semiotic was imposed to give an account of various aspects of nature and of perception. According to this model, natural phenomena and perceptions are connected to their causes in virtue of a constant relation which does not necessarily imply a resemblance between the sign and its meaning.

In the *New Theory of Vision*¹, Berkeley affirms that visual ideas constitute a language in the proper sense of the term and that this language is the language that God speaks to men. With this thesis of the divine optical language, Berkeley transforms the general semiotic model in a linguistic one. In the philosophy of Berkeley the idea of language plays a particularly important role, as it is not limited to being an explanatory model, but is used as a key idea for explaining visual perception and for giving proofs of the existence of God in NTV and *Alciphron*.

The notion of language used by Berkeley in his proof of the divine visual language is relatively complex because he specifies not only the features of the relation between visual signs and their tactual significations, but equally the ways or rules according to which a limited number of signs may combine in order to give rise to a potentially infinite number of new meanings.

In this paper I want to demonstrate the links that exist between *Principles of Human Nature* and NTV on the topic of language. More particularly I want to show that Berkeley tries to strengthen the arguments of PHK for the existence of God by means of the NTV's thesis that vision is a language. The relations between NTV and PHK therefore do not play themselves out at the level of the theory of abstraction, but rather on that of visual language.

¹ G. Berkeley, *An essay toward a New Theory of Vision*, in *The Works of George Berkeley Bishop of Cloyne* (Ed. by A.A. Luce and T.E. Jessop), Nelden, Kraus Reprint, 1979, vol. 1, hereafter cited in the text by NTV, followed by the section number.

First of all I will deal with language as it is presented in NTV, then with language in the first and second editions of PHK, and finally with the relations between these texts.

Berkeley defines the force, use and nature of language in the fourth dialogue of *Alciphron* as follows:

[...] the arbitrary use of sensible signs, which have no similitude or necessary connexion with the things signified; so as by the apposite management of them suggest and exhibit to my mind an endless variety of things, differing in nature, time and place; thereby informing me, entertaining me, and directing me how to act, not only with regard to things near and present, but also with regard to things distant and future. [...]²

Two characteristics therefore seem essential if a thing is to be a language: first there must be a system of signs linked to their significations neither by necessity nor resemblance; further, it is necessary that the arrangement, the organisation of the signs amongst and between themselves should be such that their significations could be multiplied infinitely. The first aspect has to do with the foundation of the relation between sign and signification, whilst the second concerns the manner of combining signs in order to achieve new significations. In the PHK and TVV, Berkeley specifies that the arrangement of signs should be performed *by rules* and *with wise contrivance* (cf. TVV and PHK).

If, for greater clarity and without worrying about anachronism, one tries to locate this definition in the modern categories of semantics (that is, the study of relations between signs and what they signify), syntax (as the study of relations between signs), and pragmatics (the study of the relation between signs and actions). And one may therefore say that Berkeley's definition specifies the characteristics appropriate to two levels, more precisely semantics (as he writes that the relation between sign and signification should be established by experience) and syntax (as he writes that the composition of signs should be done according to rules). Furthermore, the theory of signification of the

² *Alciphron or the Minute Philosopher*, in *Works, op. cit.*, vol. 3; IV, 7; hereafter cited in the text by A, followed by dialogue and section number.

Introduction to PHK and in dialogue VII of *Alciphron* shows us that, for Berkeley, semantics and pragmatics are from time to time superimposed upon one another.

One also finds the two components of the definition of language from *Alciphron* in the NTV: there are signs connected in an arbitrary manner to their significations and rules that allow one to know the meaning of a group of signs achieved by the arrangement and variation of certain given signs. Studying the rules of this language is the object of the NTV. The discovery of these rules is that which allows one to conclude that one is dealing with a language and therefore that a God with all the attributes of the Christian God exists.

In the NTV, Berkeley shows that we do not immediately see the distance, size etc of objects, but that there are ideas immediately perceived by the sight which, by virtue of an association learnt by experience, function as the signs of corresponding tactile ideas. These idea-signs can establish a rule as they admit of degrees. Thus when, for example, the spirit has experienced a 'habitual connection between the several degrees of confusion and distance; the greater confusion still implying the lesser distance, and the lesser confusion the greater distance of the object', the different degrees of confusion of a visible image have come to signify different degrees of distance, a greater confusion indicating a lesser distance and vice versa. Another 'gradual' sign of distance is found in the different disposition of the eyes.

The signs of magnitude are 1) the visible magnitude (a greater visible magnitude indicating a greater tangible magnitude); 2) the faintness of the visible object (a greater faintness indicating a greater magnitude) and 3) the situation of the visible object in the visual field (the magnitude of visual objects being equal, they appear greater when situated in the upper section of the field of vision).

Discussing the case of a faintness in an image of the moon produced by the interposition of an opaque screen, which, despite the increased faintness of the visual image does not modify at all the visible magnitude of the moon, Berkeley holds that the relation between the signs and significations of visual language function exactly as the relations of verbal language, as both one and the other depend on context, and that it is only when taken in that context that the tangible signification is determined:

73. Faintness, as well as all other ideas or perceptions which suggest magnitude or distance, doth it in the same way that

words suggest the notion to which they are annexed. Now, it is known a word pronounced with certain circumstances, or in a certain context with other words, hath not always the same import and signification that it hath when pronounced in some other circumstances or different context of words.

Further, the relation between sign and signification is complex in that the same sign can suggest different properties such as distance and magnitude.³

It is important to remark that the signs of which Berkeley talks are confusion, faintness, visible magnitude and situation in the visual field. These signs are connected to tactile significations only when they are taken altogether, as a whole, which is not surprising given that the critique of abstract ideas teaches us that it is impossible to have a degree of confusion abstracted from a certain visible magnitude, or which is not situated in the visual field. Nonetheless, this complex aspect of visual signs suggests that the semantics-syntax schema cannot appropriately be applied to visual signs and their rules of composition as visual signs do not seem to have a signification outside of their arrangement in some particular order. In other words, visual signs are not like single words such as the word 'house' which signifies the object *house* even outside of any particular sentence, and which brings its own meaning or signification to a phrase such as 'I go to the house' in virtue of its singular signification and the rules of composition for the sentence. In the visual language one might say that there is no singular or elementary signification: one can move from signs to their significations only by means of rules. What is important for Berkeley's proposal is that there is no resemblance nor any necessary relation between the characteristics of signs and those of significations. The study of the relation between visual signs and their tactile significations has shown precisely that the relation is founded exclusively on experience.

The dependence on context, the possibility of illusions as in the cases of mirrors or paintings, are confirmations of the contingency of the relation between the visible sign and its tactile signification.

³ NTV 77 We are also to remark that, beside the straining of the eyes, and beside the vivid and faint, the distinct and confused appearances (which, bearing some proportion to lines and angles ...), there are other means which suggest both distance and magnitude ; particularly the situation of visible points or objects, as upper or lower ; the one suggesting a farther distance and greater magnitude ; the other a nearer distance and lesser magnitude : All which is an effect only of custom and experience.

In *Alciphron* IV.12, Berkeley seems to see that the difference between visual signs and significations and the phenomena of nature is that visual signs, differing in this respect from natural phenomena, testify to the existence of a God 'good and provident', 'actually and intimately present', whereas natural phenomena or the laws of movement don't testify to a spirit of the same kind:

be accounted for by mechanical principles, by atoms, attractions, or effluvia.⁴ [...] being utterly inexplicable and unaccountable by the laws of motion, by chance, by fate, or the like blind principles, doth set forth and testify the immediate operation of a spirit or thinking being ; and not merely of a spirit, which every motion or gravitation may possibly infer, but of one wise, good and provident Spirit, who directs and rules and governs the world.⁵

At first view, one could say that what distinguishes the rules of visual grammar from the laws of mechanical physics is the lack of a constant relationship, describable mathematically, a lack that Berkeley associates with the presence of an active cause, a spirit, immediately present, *good and provident*.

Yet it is important to recognise that the presence of exceptions to a given rule is something concerned precisely with rules (and therefore not with the collection of signs or their significations). The exceptions guarantee that the rules are not mechanical and blind. Yet, as we have seen, Berkeley thinks that in order to be able to find a relation of linguistic signification between two systems of signs it is also necessary that the signs and significations are completely independent and therefore entirely different. It is precisely this independence that the controversial thesis of heterogeneity is called upon to establish. In *NTV*, *Alciphron*, and *Theory of Vision Vindicated*, Berkeley always presents this thesis as an essential premise for the thesis of vision as a divine language, and I believe that the definition Berkeley gives of language accounts for this necessity.

I come now to the idea of language in the *PHK*, in order to show points of convergence and divergence in relation to the idea of language in *NTV*.

⁴ And he goes on : « The instantenous production and reproduction of so many signs, combined, dissolved, transposed, diversified, and adapted to such an endless variety of purposes, ever shifting with the occasions and suited to them, » A IV, 14, p. 159-160.

⁵ IV, 14

In the PHK the reader is led to reflect on language, its use and structure in two places. First of all in the introduction, and then in sections 64-66 and 103-09 of the first part. In the introduction, Berkeley develops a theory of signification, whereas in the first part it is the idea of language which is charged with showing that nature may be compared (and only *compared*) to a language instituted by God for our conservation, our well-being.

In sections 65-66 Berkeley affirms, in the first place, that the relation between natural phenomena need not be seen as a relation between causes and effects, but as a relation between signs and the things signified. Secondly, Berkeley affirms that the regularity with which phenomena manifest themselves are established in order that an infinity of phenomena can be signified by a limited number of elements or signs, in the same manner – as Berkeley explains – as in language a limited number of letters can, combined with one another, form an extremely large number of words:

65. The reasons why ideas are formed into machine, that is, artificial and regular combinations, is the same with that for combining letters into words. That a few original ideas may be made to signify a great number of effects and actions, it is necessary they be variously combined together: and to the end their use be permanent and universal, these combinations must be made by *rule*, and with *wise contrivance*. By this means abundance of information is conveyed unto us, concerning what we are to expect from such and such actions, and what methods are proper to be taken, for the exciting such and such ideas : which in effect is all that I conceive to be distinctly meant, when it is said that by discerning the figure, texture, and mechanism of the inward parts of bodies, whether natural or artificial, we may attain to know the several uses and properties depending thereon, or the nature of the thing.

The general sense of this section is that in order to multiply phenomena, it is necessary to combine a certain number of basic phenomena, and in order to be able to predict the result of the combination it is necessary that the combination is performed in accordance with certain rules. Yet certain questions impose themselves when one tries to determine more precisely the sense of this section. A first problem concerns the determination of the ‘few original ideas’ which

constitute idea-signs; a second problem concerns the parallel established with letters which are made into words.

One might think that Berkeley here intends to refer simply to the regularity of the relation between the causing phenomena and the effected phenomena, and that he wants to say that in virtue of this regular association the precedent phenomena are the signs of the phenomena that follow. But this reading is surely incorrect, as Berkeley is speaking of a limited number of ideas whereas this reading suggests that any phenomenon could play the role of a sign.

One is therefore obliged to think that the ‘few original ideas’ in question are the ‘figure, texture, and mechanism of the inward parts of bodies’ of the final section. The ‘inward parts of bodies’ must here be understood as parts internal and yet in principle perceptible.

The ‘methods’ must therefore be thought of as the relations between perceptible ideas such as a circular form of a wheel which will perform a certain movement if we push it down a slope, and the language of nature is that which tells us what we must do in order to catch it at the bottom of its descent. Or if one wants ideas more ‘inward’, the language of nature is that which tells us which wheels and chimes are employed to make a clock.

A second remark concerns that which Berkeley writes with regard to the combination of letters in words. Letters are combined in order to produce a great variety of words, yet it is not clear to me if they are also combined ‘by rules and with wise contrivance’. It is evident that words are not made by combining letters by chance, yet it is only in forcing the meanings of words that it is possible to say that something which is not brought about by chance is brought about by rules. If we really accept that letters are combined into words ‘by rules’, that implies that the rules are extremely numerous. It is clear that the case of letters being combined into words illustrates very well the power of multiplying simple given elements, yet it is also evident in the case of letters and words – in contrast to that which takes place in discourse – that the signification of the complex (the word) does not depend at all on the signification of the elements.

Section 104 introduces the theme of mechanical explanations of nature. Knowledge of phenomena, claims Berkeley (105, picking up on section 65), is nothing other than the discovery of regular relations (analogies) which allow us to infer that which might take place at different moments in time and space. The problem is – says Berkeley (106) – that scientists have a tendency to overextend

the application of rules found in certain natural phenomena, as in mechanist explanations of nature that describe attraction as a universal principle. Such explanations suggest that all phenomena embody one single variety of quantitative relations, and illustrate a single rule and, therefore – think such scientists – a universal rule.

Yet a close observation of phenomena such as the vertical growth of plants or the consistency of the relative position of the fixed stars obliges us to recognise –Berkeley affirms – that 1) attraction is not universal and that therefore 2) the laws of movement described by them are not necessary, and 3) that they are rather the result of the free choice of a ‘governing Spirit’. The vertical growth of plants as well as the constant relation of the fixed stars are not simply the exceptions to a supposedly universal rule of attraction, but rather the incarnation of different rules (or principles) freely chosen by God:

106. [...] Whereas it appears the fixed stars have not such a tendency towards each other : and so far is that gravitation, from being *essential* to bodies, that, in some instances a quite contrary principle seems to shew it self : as in the perpendicular growth of plants, and the elasticity of the air. There is nothing necessary or essential in the case, but it depends entirely on the will of the *governing spirit*, who causes certain bodies to cleave together, or tend towards each other, according to various laws, whilst he keeps others at a fixed distance; and to some he gives a quite contrary tendency to fly asunder, just as he sees convenient.

Berkeley describes here three different sorts of bodies natural movements: some bodies attract themselves (according to Newton gravitation law), some others repel themselves (as plants which growing go away from the earth) and finally some others remain at a constant distance and so do not attract nor repel each others (as fixed stars). The first aim of this description is to show that there is not a unique law describing the totality of corporeal movement, but that there are many different rules or laws. Why Berkeley does opposite himself to the unification of all natural movements under the gravitation law? The point is of importance because Berkeley considers that the existence of a plurality of natural movement laws implies not only that attraction is not universal and so not necessary, but also, and most importantly, that it exists at some level a kind of free choice of the rule followed, choice which points to the existence of a *governing Spirit*.

Berkeley's progression from the plurality of rules to free choice and a 'governing spirit' is quite surprising, as if there could not easily be several blind mechanical principles which are applied mechanically to different kinds of objects. However, Berkeley's purpose is quite clear: he introduces here the first step (or even the first synthesis) of what will be the proof of the existence of God – which is a form of the design argument - at the end of the first part. That is why, having recognised the existence of a 'governing spirit', Berkeley announces the analogy according to which

108. [...] the steady and consistent Methods of Nature, may not unfitly be Styled the *Language* of its *Author*, whereby he discovers his *Attributes* to our View, and directs us how to act for the Convenience and Felicity of Life. [...]

Berkeley pursues the parallel by distinguishing the study of rules or grammar from understanding signification (that is to say mastering activities that control nature, contemplating it with admiration, etc). One sees here that Berkeley has changed the terms of his comparison (whilst remaining within the domain of language): the phenomena and rules of nature are compared this time not to the rules that concern the composition of words from letters, but to the rules of a grammar. It is much easier to follow this analogy, but we might ask to what extent the methods of nature may resemble a grammar. I believe the essential characteristic that Berkeley wishes to capture with this comparison is the non-necessity of the relationship.

The essence of Berkeley's proposal remains the same in the second edition, when, keeping the sections on the non-universality of attraction, and the plurality of laws of natural movements (vertical growth of plants, elasticity of the air, etc), he no longer invokes the resemblance of the methods of nature to a book that may be observed ('perusing') in choosing to pay attention either 1. to the manner of reducing particular phenomena to general rules or 2. in delighting in the beauty of nature observed (section 109). Also, in section 108 of the second edition he corrects the phrase 'this language (if I may so call it) of the Author of Nature' by substituting for it the following phrase: 'those signs instituted by the Author of Nature'. I think that in the two editions of the PHK the comparison between the methods of nature and a divine language is metaphorical. This fact appears evident to me when one compares the expressions used by Berkeley to present the divine language thesis in PHK and NTV. In NTV 146 (first edition), Berkeley writes: 'Upon the whole, I think we may fairly conclude that the proper objects of vision constitute the universal

language of nature', whereas in PHK Berkeley uses forms of expression such as that the methods of nature 'may be styled a language' and 'if I may so call it'. Thus, I think that the principle difference between the first and second editions here is the change from a language taken in the metaphorical sense, and a mere collection of signs. It is as if Berkeley had taken stock of the difficulty of incorporating the methods of nature into the linguistic model, and had chosen a less demanding model, that of a system of signs.

Before concluding these remarks on the 'language' of nature of PHK, I would like to say again that we are dealing with a metaphor, even if the characteristics of these laws of nature (which may be *compared* to a language) may be essential for knowing of the existence and attributes of God.

One sees also that for the apologetic purposes of Berkeley this difference between language understood metaphorically and language understood in the proper sense of the term is of the greatest importance, as only a divine language in the proper sense of the term may testify to the existence, the presence, and the benevolence of God.

So, I think that Berkeley is well aware that the proof of the existence of God founded on visual language is stronger than that of PHK, which I shall call an argument by design, or that, at the very least, they demonstrate the existence of spirits having different characteristics. On this point Berkeley is explicit in *Alciphron*. I think that his strategy consists in ensuring that the theory of a visual language of NTV is in a certain manner comprised within the philosophy of PHK. It is for this reason he always mentions the thesis of a visual language in referring to the reading of NTV, as much in PHK as in *Three Dialogues between Hylas and Philonous* and evidently in *Alciphron*. And even in *Siris* when he returns to the thesis of the language of the author of nature, he gives a prominent place to visual phenomena.

In a similar way, it is important to see that the heterogeneity demonstrated in NTV is essential for the thesis of an optical language and is no more than peripheral in relation to the foundation of the metaphysical theses of PHK. Actually, the thesis of heterogeneity does not help at all the establishment of the impossibility of general abstract ideas. This is evident when we take into account that the impossible abstraction to which Berkeley makes reference in the introduction to PHK is that of extension separated from any sensible quality (tactile or visual) which accompanies it, and which renders it perceptible: that visible extension is either the same as or different from tangible extension neither adds nor subtracts anything from the general impossibility of separating

extension from the sensible qualities which accompany it. That is why, I think, Berkeley at NTV 122, claims that the theory of abstraction may have implications for the heterogeneity thesis only if a second condition is added to the possibility of abstracting, that is, that the eventual (abstract) ideas of visible extension and tangible extension be the same:

[...] it is with a secret supposition that we can single out extension from all other tangible and visible qualities, and form thereof an abstract idea and that the abstract ideas of visual extension and those of tangible extension are the same ('which idea they will have common both to sight and touch.

The heterogeneity thesis demonstrates precisely that visible extension and figure are not of the same type as tactile extension and figure⁶.

Moreover, the heterogeneity thesis plays no further role in the establishment of immaterialism in PHK. The coexistence in NTV of the heterogeneity thesis and the existence of tangible objects outside of the spirit seem to me a proof of the independence of the heterogeneity thesis from that of immaterialism.

Evidently the NTV contains many hints and suggestions of an immaterialist universe, as when for example in section 45 on the signification of the sight of the moon at distance, where we are plunged into a complex structure of ideas, without reference to a fixed and determined tactile object. Yet I do not see there the establishment of premises essential to the argument for immaterialism.

To conclude I would like to defend two theses. The first is that the NTV was developed in a manner independent of the anti-materialist and anti-abstractionist theses of the PHK. The principle thesis of the NTV is that vision is a language God speaks to men and this thesis has no immediate implications for the existence of matter or for the possibility of abstract ideas.

The second thesis which I have tried to defend is that the reference to a divine language is much weaker in the PHK than in NTV and that Berkeley tries to ensure that the theory of visual language of NTV is in a certain manner comprised in the philosophy of the PHK. And that would explain why Berkeley chose to publish NTV first.

⁶ On the opposite position cf. G. Pappas, *Berkeley's Thought*, Ithaca and London, Cornell Univ. Press, 2000, p. 95-100, note 28.