MOLYNEUX'S QUESTION AND THE BERKELEIAN ANSWER

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In 1688, William Molyneux, an Irish philosopher and scientist specializing in optics, wrote a letter to John Locke in which he asked him a very interesting and important question about the senses. Locke did not answer (and it is not known why not). Fortunately, Molyneux raised the question again five years later in another letter. This time Locke responded and he did so with enthusiasm. He so much liked Molyneux's question that he incorporated it into the second edition of his *Essay concerning Human Understanding* (1694) and discussed it shortly. Here is the version from the *Essay* which then became the starting point and main reference text of a long and controversial discussion and which only very slightly differs from Molyneux's version in the second letter and not much from the version of the first letter:

Suppose a Man born blind, and now adult, and taught by his touch to distinguish between a Cube, and a Sphere of the same metal, and nighly of the same bigness, so as to tell, when he felt one and t'other, which is the Cube, which the Sphere. Suppose then the Cube and Sphere placed on a Table, and the Blind Man to be

made to see. Quaere, Whether by his sight, before he touch'd them, he could now distinguish, and tell, which is the Globe, which the Cube (Locke, Essay, II.9.8)¹.

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Locke quotes Molyneux, Letter to Locke, 2 March 1693, 651. Cf. also the earlier letter by Molyneux: Molyneux, 1978, 482f. As overviews of the discussion on Molyneux's problem cf. Davis 1960, Morgan 1977, Pacherie 1997, and especially Degenaar 1996.

This quotation made the question famous; it has long been known under the name "Molyneux's Question". Not everyone would want to go as far as Ernst Cassirer who thought that Molyneux's problem is the central problem in 18th Century epistemology (cf. Cassirer 1951, 108f). But I think it certainly is a very important problem with farreaching implications not just for our way of thinking about the different senses but also about cognition more generally. It is still very important today and there is not only an ongoing controversial philosophical discussion but there is also ongoing empirical research relevant to the question.

Now, one might think that Molyneux's question is straightforward and it is just the answer to it that would keep us busy. Unfortunately, it is not quite like that: The question itself is in need of further specification in many respects. There is not just one way to interpret the question. And different authors have interpreted it in different ways2. One could even argue that the full potential of Molyneux's question only became clearer later (with the distinction between conceptual and non-conceptual mental representations). I am going to start by taking a closer look at the question itself (1). Amongst those who answered the question in the negative or at least not in the positive, George Berkeley is of particular interest because he argued for a very radical position. Most of his contribution to the discussion can be found in his Essay towards a New Theory of Vision (cf. on this aspect of Berkeley's work, e.g., Atherton 1990). I will give an exposition of his view (2) and then move on to a critical discussion of this kind of view, —what one could call the "Berkeleian view" (3). I think that the problems of what has become a standard negative answer to the question (mainly brought forward by empiricists) become very clear in Berkeley's case and one can also learn a lot from this.

MOLYNEUX'S QUESTIONS

The closer one looks, the more one can be tempted to speak of Molyneux's questions rather just Molyneux's question. To start with, Molyneux is asking what would be the case after the man has been made to see. But what exactly does seeing involve here? It seems relatively uncontroversial that light of different intensity and different wave-length (color) would fall onto the person's retinas. Or, as Locke (cf. Locke, Essay, II.9.8) puts it: there is "colour" as well as "shadow" and different "degrees of light and brightness". This is, of course, not sufficient for seeing: The eyes and the

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² For a rather unorthodox interpretation of the problem as not having to do with the relation between sight and touch cf. Berchielli 2002, 49, 62-64. Heil 1987 holds that the real problem has to do with a presupposed atomism of the senses. It seems to me, however, that the atomism presupposed here is rather innocent.

³ Given the plausible thesisth ence, it would be false to say the way as the eyes and brain of a the same kind of vision and M ⁴ For the sake of simplicity, in 268ff.). Molyneux and Locke ⁵ If not indicated otherwise, application". That a person can plies the concept, but that she distinguishes between having do not find very illuminating if

brain of the person also have to work in a certain way³. Now, after the acquisition of vision, Molyneux's person would experience new mental states and processes she was not able to experience before. She would be able to see. But, again: What exactly does seeing involve here? There are three different main possibilities:

- a) Molyneux's person acquires three-dimensional (3-D) visual experiences;
- b) she only acquires two-dimensional (2-D) visual experiences⁴;
- c) her new visual experiences lack any intentional content.

According to (c), the person would neither have 2-D nor 3-D vision. She would see but she would not see something. In that sense, her visual experience would be purely "subjective" (like, e.g., pain) (cf. Kant, KrV, A 320/ B 376 on subjective and objective perceptions).

- (a), (b) and (c) are different answers to the question
- (1) What kinds of visual experience does Molyneux's person acquire?

This question is not Molyneux's question. The question is not "What does the person come to see?" but rather:

(2) Can Molyneux's person distinguish and tell (relying exclusively on her vision) which object is the globe and which is the cube?

To be sure, the answer to (2) depends on the answer to (1). Hence, (1) is relevant here. But it is not Molyneux's question. Let me say a bit about (2) and its connection with (1).

A person who is able to tell globes from cubes (and to tell which is which) *ipso facto* has the concepts of globe and cube and is able to correctly apply these concepts to objects⁵. To be sure, Locke, Berkeley and many other contemporaries would rather speak of "abstract" or "general ideas" than "concepts". One has to be careful when using a term like "concept"

³ Given the plausible thesis that there is no mental difference without a physical or functional difference, it would be false to say that the eyes and brain of Molyneux's person work in exactly the same way as the eyes and brain of a person who has never been blind: In that case they would both have the same kind of vision and Molyneux's question would not even arise.

⁴ For the sake of simplicity, I neglect other forms of vision, like Marr's 2,5-D vision (cf. Marr 1982., 268ff.). Molyneux and Locke certainly did not think of such possibilities.

⁵ If not indicated otherwise, "application of a concept" will be used here in the sense of "correct application". That a person can correctly apply a concept does not mean that she always correctly applies the concept, but that she does so in a sufficient number of cases. Cf. Levin 1986, 248-252 who distinguishes between having a concept and being able to apply it; she uses this distinction (which I do not find very illuminating) in the context of a discussion of the Molyneux and the qualia problem.

here because one might read a very different view of mental representation (e.g., Kant's) into authors of an earlier period. Now, perhaps the ability to make distinctions within one's visual field does not presuppose conceptual abilities. However, Molyneux's question (2) clearly asks for more: namely for the ability to identify objects as globes or cubes by sight. And this presupposes that the person has the concepts of globe and cube and can apply them. According to the assumptions behind Molyneux's question, the person can already distinguish globes and cubes by touch (which captures three-dimensional spatial relations). We could also say that she already has the concepts of globe and cube and that she can apply them based on her three-dimensional tactile experiences⁶. Molyneux's question can thus be reformulated in the following way:

(3) Can Molyneux's person apply the concepts of globe and cube (which she already can apply based on tactile experience) by exclusive reliance on her new visual experience?

Putting the question like this, though, makes it obvious that Berkeley should have a problem even with accepting Molyneux's question. I will say more about this later but want to already flag the problem up right now. But back to some basic aspects of Molyneux's question. Can the person apply one and the same concept (of a globe and of a cube) both as exclusively based on tactile experience and as exclusively based on visual experience?

The answer to Molyneux's question (3) depends, as I already pointed out, on which of the alternative views (a), (b) or (c) one takes. If one accepts (c), then obviously one has to deny the question⁷. The concepts of globe and cube as applied on the basis of touch are obviously spatial notions.

If one accepts (b), the problem arises whether or how one can apply concepts which arguably are concepts of three-dimensional objects on the basis of two-dimensional (visual) information. This is related to but not identical with the important question of how we get from 2-D vision to 3-D vision⁸.

I propose to go with (a) here. This interpretation does not bring up side issues and brings out the main problem in the most straightforward fashion. As we will see, Berkeley would not agree with this but we will get back to

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In both cases, one in globe from the cube. It is between an empirical However, it is not asso

⁶ Cf., however, Senden 1932, 266-278, 299f. and Valvo 1971, 23f., 26f., 35f. according to whom there is empirical evidence which shows that the blind do not have any conception or idea of space.

⁷ Cf. Bolton 1994, 79-83 who thinks that Locke accepts (c). Cf. also Vienne 1992, 664. Schumacher Ms., 4-10 distinguishes two common interpretations of Locke: According to one, Locke accepts (a); according to the other, he rather accepts (c); given the first interpretation, Locke should have answered Molyneux's question in the positive, according to Schumacher.

Some authors, however, hold that this is at least part of Molyneux's problem. I think this misses the point, but cf. Brandt 1975, 177; Lievers 1992, 399-401, 405-406, 410, 415; Waxman 2002.

I do not intend to decide he accepted (a), (b) or (c).

¹⁰ Cf. Diderot, Lettre sur less 1976, 30-32 thinks that Lock question in the positive.

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¹² Cf. Locke, Essay, II.9.8 with Locke, 2 March 1693, 651). Chart Molyneux's person would

that. Like in the case of (b), it is an open question how one should answer Molyneux's question⁹.

Some philosophers, like Diderot, hold that the main point of Molyneux's question becomes clearer if one reformulates it and poses it as a problem about two-dimensional rather than three-dimensional shapes (squares and circles rather than cubes and globes)¹⁰. However, since the sense of touch appears to be essentially three-dimensional, and for the other reasons mentioned above, I prefer to go with (a).

One further question is whether the person has to answer immediately—when she might still be "dazzled and confused by the strangeness" (Leibniz, Nouveaux Essais, II.9.8)— or can take her time. Perhaps she needs some time to adapt to the new circumstances (like our pupils when we suddenly switch from brightness to darkness) (cf. Gregory 1987, 95). But is this really an important question here? I do not think so". However, the question of time helps us to understand what the truly important question is here: On the basis of what can the person answer Molyneux's question? Almost all authors agree that she will be able to do so sooner or later. But what kinds of resources does she need to use in order to be able to answer the question? One can distinguish two possible answers here:

- I. The visual experience, conceptual capacities and, perhaps, some a priori reasoning are sufficient to tell which object is the globe and which the cube;
- II. In addition to that, the person also needs further experience and some inductive reasoning (about the correlation between tactile and visual experiences).

In both cases, one needs some experience in order to be able to tell the globe from the cube. Hence, it is not quite true to say that the alternative is between an empiricist and an apriorist answer to Molyneux's question. However, it is not astonishing that empiricists tend to hold (II)¹² whereas

⁹ I do not intend to decide here the difficult interpretatory question of whether Molyneux or Locke accepted (a), (b) or (c).

¹⁰ Cf. Diderot, Lettre sur les aveugles, 314-330, 325 and, following him, Evans 1985, 365. Mackie 1976, 30-32 thinks that Locke would have answered the two-dimensional version of Molyneux's question in the positive.

¹¹ Cf., however, Marks 1978, 23f. according to whom Molyneux's question has to be denied because the person needs some time to able to answer it. According to Berchielli 2002, 64, Locke would agree.

¹² Cf. Locke, *Essay*, II.9.8 where he approvingly quotes Molyneux's answer (cf. Molyneux, *Letter to Locke*, 2 March 1693, 651). Cf. also Berkeley, *New Theory of Vision*, §§ 41, 79, 128, 135; he thinks that Molyneux's person would not even be able to understand the problem (cf. ibid., § 135).

apriorists rather tend to hold (I)¹³. This allows us to reformulate (3) and give Molyneux's question a more precise form and will thus also enable us to better understand the different answers given¹⁴:

(4) Can Molyneux's person apply the concepts of globe and cube (which she already can apply based on tactile experience) by exclusive reliance on her new visual experience and, perhaps, some a priori reasoning (without further experience and inductive reasoning concerning the correlation between tactile and visual experience)?

What then should we say if it turned out that the person needs to touch the objects before she can tell the globe from the cube by looking at it? Suppose that touching the objects is a "merely causal" precondition for the use of the new visual experience by the person. There could be such a weird causal connection. This, however, would not constitute a reason to deny Molyneux's question (4). Only if touching the objects is (also) necessary because it delivers further information do we have a reason to deny the question. In other words, Molyneux's question is a question about justification: Does the person have sufficient information to tell cube from globe? Molyneux's question is not a descriptive, "de facto" question but rather a justificatory, "de jure" question¹⁵. That Molyneux's question should be taken in a *de jure* way, has not always been made clear enough¹⁶.

13 Cf. (with respect to a weaker version of Molyneux's question): Leibniz, *Nouveaux Essais*, II.9.8.

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Cheselden reports that any Judgment about [objects'] shape [...] Thing from another, ho did not present cubes a cats and dogs: "Having he was asham'd to ask he was observ'd to loo So Puss! I shall know Molyneux, Locke, and cat or a dog "affects his to Essay, II.9.8)¹⁸.

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¹⁴ Cf. for a similar way to put it: Evans 1985, 366. Campbell 1996a, 302-304 argues that externalism about mental content suggests a positive answer to Molyneux's question. This, however, seems to miss the point of Molyneux's problem: It presupposes that the relevant content is accessible to the person; hence, the question presupposes some kind of content internalism. Cf. also the discussion between Loar 1996, Ludwig 1996 and Campbell 1996b.

¹⁵ Cf. Kant, KrV, A 84/ B 116. It does not matter here whether we choose an "internalist" or an "externalist" conception of justification (cf. Kornblith 2001, 1-9).

¹⁶ Cf. however Evans 1985, 376-378. —We have to make certain rather obvious background assumptions: The conditions of perception are normal (whatever that means in detail), there are no tricks or perceptual illusions involved, the objects are close enough and visible from a normal perspective, etc. — There are further questions about the conditions under which Molyneux's person is put to the test. First: Does she know in advance that she will see two objects, one of them a globe and one of them a cube? If yes, it will, of course, be easier for her to pass the test. I will focus here on the stronger rather than the weaker version of Molyneux's scenario and assume that the person does not know in advance that a cube and a globe will be presented to her. There seems nothing in Berkeley which would suggest that he had the weaker version in mind. Interestingly, Leibniz affirms the weaker version of the question and denies the stronger version: cf. Leibniz, *Nouveaux Essais*, II.9.8 (tr.: Peter Remnant/ Jonathan Bennett).

¹⁷ Cf. Cheselden, Account. Of ch. 4. For an extensive overvit 8-82 and 82-111. He thinks that of cases until 1930 cf. Senden 18 Cheselden adds that the boy Cheselden, Account, 449).

BERKELEIAN ANSWERS

Not long after Locke had published Molyneux's question in his *Essay*, the discussion about it was fuelled by new empirical data. In 1728, William Cheselden, an English surgeon, published a report about two successful cataract operations he had done on the eyes of a 13- or 14-year-old boy¹⁷. The boy had been born blind or had lost his sight very early. He acquired vision after surgery. Apparently, Cheselden did not know about Molyneux's problem but his report is still very interesting in this context. Strictly speaking, persons with cataract like Cheselden's boy are not completely blind: Their retinas are still functional; they can usually perceive broad differences in brightness and can vaguely recognize hand movements directly in front of their eyes. This, however, does not seem to make a relevant difference here. Cheselden's patient might have had vision as a very young infant but, according to Cheselden's title, this would have been "so early, that he had no Remembrance of ever having seen".

Cheselden reports that "When he first saw, he was [...] far from making any Judgment about Distances"; "he could form no Judment of their [objects'] shape [...] He knew not the Shape of any Thing, nor any one Thing from another, however different in Shape, or Magnitude". Cheselden did not present cubes and globes to him but had something to report about cats and dogs: "Having often forgot which was the Cat, and which the Dog, he was asham'd to ask; but catching the Cat (which he knew by feeling) he was observ'd to look at her steadfastly, and then setting her down, said, So Puss! I shall know you another Time" (Cheselden, Account, 448). As Molyneux, Locke, and others would have said: He already knew how a cat or a dog "affects his touch; yet he has not yet attained the Experience, that what affects his touch so or so, must affect his sight so or so" (Locke, Essay, II.9.8)¹⁸.

After Cheselden, there have been much more directly or indirectly relevant empirical data (and not just observations from case studies but also from systematic experiments). Most of the recent data rather seem to suggest a different morale. However, many contemporaries took Cheselden's as confirmation of the negative answer to Molyneux's question. Now, it is not quite clear in what sense this is an empirical question and in what sense it isn't. But from the start, there have been philosophical responses to it.

¹⁷ Cf. Cheselden, Account. On Cheselden's operation and other early operations cf. Degenaar 1996, ch. 4. For an extensive overview over operations until 1930 cf. Senden 1932, passim and especially 8-82 and 82-111. He thinks that the data suggest a negative answer to Molyneux's question. For a list of cases until 1930 cf. Senden 1932, 304. Cf. for later case studies Valvo 1971.

Cheselden adds that the boy had difficulties seeing realistic pictures as representing something (cf. Cheselden, Account, 449).

The classical argument for a negative answer to Molyneux's question is the one given by Molyneux himself and approvingly quoted by Locke:

Not. For though he has obtain'd the experience of, how a Globe, how a Cube affects his touch; yet he has not yet attained the Experience, that what affects his touch so or so, must affect his sight so or so; Or that a protuberant angle in the Cube, that pressed his hand unequally, shall appear to his eye, as it does in the Cube (Locke, *Essay*, II.9.8).

In his Essay towards a New Theory of Vision, Berkeley further developed and radicalized the ideas behind Locke's and Molyneux's answer (with echos in the *Principles*, the *Three Dialogues* and early anticipations in the *Philosophical Commentaries*).

First, we should stress that Berkeley did not choose option (a) above; according to him, Molyneux's person does not enjoy 3-D vision. The reason is simply that we can, strictly speaking, not see distance or distant objects:

[...] so that in truth and strictness of speech I neither see distance itself, nor anything that I take to be at a distance. I say, neither distance nor things placed at a distance are themselves, or their ideas, truly perceived by sight.
[...] From what we have shewn it is a manifest consequence that the ideas of space, outness, and things placed at a distance are not, strictly speaking, the objects of sight; they are

not otherwise perceived by the eye than by the ear (Berkeley, *New Theory of Vision*, §§ 45-46. Cf. also §§ 126, 154, as well as *Principles*, § 44; *Three Dialogues*, 201. *Philosophical Commentaries*, 215. In *Philosophical Commentaries* 32, he says: "Molyneux's Blind man would not know the sphere or cube to be bodies or extended at first sight").

The implications for Molyneux's person are clear. Berkeley points out

[...] that a man born blind, being made to see, would, at first, have no idea of distance by sight (Berkeley, *New Theory of Vision*, § 41).

Because we do not have visual ideas of distance we also do not have visual ideas of three-dimensional objects (cf. Berkeley, *New Theory of Vision*, § 154, 133). In one paragraph of the *Essay towards a New Theory of Vision* Berkeley even seems to deny that one can have two-dimensional visual ideas. A being which has no sense of touch but only one of vision

could never attain to know so much as the first elements of plane geometry. And perhaps upon a nice enquiry it will be found he cannot even have an idea of plane figures any more than he can of solids; since some idea of distance is necessary to form the idea of a geometrical plane (Berkeley,

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¹⁹ Cf. §§ 46, 50, 111, 131 227. See also the slightly

New Theory of Vision, § 155; cf. also §§ 157-158. Cf. also Philosophical Commentaries, 32).

However, this latter idea seems to go to far for Berkeley's own theory: The way he describes the "naked" visual experience seems to require at least two-dimensional visual ideas (cf. Wilson 1999, 267 but also Schumacher 2007).

If distance or three-dimensional objects are not what we see, what then do we see? Berkeley says:

All that is properly perceived by the visive faculty amounts to no more than colours, with their variations and different proportions of light and shade (Berkeley, *New Theory of Vision*, § 156; cf. §§ 103, 129-130).

Berkeley acknowledges again and again that we tend to think that we can see three-dimensional objects. However, this is an illusion. We can even find the beginning of an error-theory in his writings which prefigure very similar accounts in Hume later. It is experience which establishes a regularity connection, a close correlation between the ideas of sight and the spatial, three-dimensional ideas of touch. The close "association" makes us think that we can really see distance and distant objects when really we can only feel that (cf. Berkeley, *New Theory of Vision*, §§ 41, 45-46). Only in a "secondary" sense (non-strictly) can we say that we see three-dimensionally (cf. Berkeley, *New Theory of Vision*, § 50).

What matters with respect to Molyneux's question is not so much the details of Berkeley's story about apparent 3-D vision and basic vision (as one could call it). Rather, what is most crucial is Berkeley's idea that our "tactile" concepts are radically different from our "visual" concepts and that a touched object is not and cannot be identical with any seen object:

But if we take a close and accurate view of things, it must be acknowledged that we never see and feel one and the same object. That which is seen is one thing, and that which is felt is another. If the visible figure and extension be not the same with the tangible figure and extension, we are not to infer that one and the same thing has divers extensions. The true consequence is that the objects of sight and touch are two distinct things. It may perhaps require some thought rightly to conceive this distinction. And the difficulty seems not a little increased, because the combination of visible ideas hath constantly the same name as the combination of tangible ideas wherewith it is connected: which doth of necessity arise from the use and end of language (Berkeley, *New Theory of Vision*, § 49)¹⁹.

¹⁹ Cf. §§ 46, 50, 111, 136, *Principles* § 44, *Three Dialogues*, 245, *Philosophical Commentaries*, 226, ²²⁷. See also the slightly different early remark in *Philosophical Commentaries*, 29: "Motion, figure

A bit later, Berkeley makes his point even more drastically:

That which I see is only variety of light and colours. That which I feel is hard or soft, hot or cold, rought or smooth. What similitude, what connexion have those ideas with these? Or how is it possible that anyone should see reason to give one and the same name to combinations of ideas so very different before he had experienced their coexistence? (Berkeley, *New Theory of Vision*, § 103. See on this point Wilson 1999).

Berkeley stresses that there is not even a resemblance between ideas of sight and ideas of touch (Berkeley, *New Theory of Vision*, § 117). Since there is nothing in common between these kinds of ideas, there also cannot be an abstract idea of extension based thereupon; Berkeley puts forward his famous critique of abstract ideas in this context, too (Berkeley, *New Theory of Vision*, §§ 122-123, 129-130, and especially 127). This shuts the door for any attempt to answer Molyneux's question in the positive. Accordingly, Berkeley remarks with respect to it that

a man born blind and made to see would, at first opening of his eyes, [...] not consider the ideas of sight with reference to, or as having any connection with, the ideas of touch (Berkeley, *New Theory of Vision*, § 79).

And:

a man born blind would not at first reception of his sight think the things he say were of the same nature with the objects of touch, or had anything in common with them; but that they were a new set of ideas, perceived in a new manner, and entirely different from all he had perceived before: so that he would not call them by the same name, nor repute them to be of the same sort with anything he had hitherto known (Berkeley, *New Theory of Vision*, § 128; cf. §§ 106, 133, 135-136, *Three Dialogues*, 202).

It is experience, according to Berkeley, which establishes a contingent correlation between the ideas of vision and the ideas of touch, - lacking any necessary connection between the two (cf. Berkeley, *New Theory of Vision*, §§ 103-106, 110, *Principles* § 44, *Three Dialogues*, 202). And this contingent relation we mistake for identity:

how great an inequality soever there may in our apprehension seem to be betwixt those two things, because of the customary and close connexion that has grown up in our minds between the objects of sight and touch; whereby the very different and distinct ideas of those two senses are so blended and confounded together as to be mistaken for one and the same thing; out of

& extension perceivable by sight are different from those ideas perceived by touch which go by the same name". (cf. also ibid., 49)

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which prejudice we cannot easily extricate ourselves (Berkeley, *New Theory of Vision*, § 79).

Very similar kinds of arguments we later find in Hume. What Berkeley has to say about the role of language here is both very interesting and puzzling:

And the difficulty seems not a little increased, because the combination of visible ideas hath constantly the same name as the combination of tangible ideas wherewith it is connected: which doth of necessity arise from the use and end of language (Berkeley, *New Theory of Vision*, § 49; cf. also *Three Dialogues*, 245).

Why is it necessary to use one and the same word if the two kinds of ideas are really radically different from each other?

Even more puzzling is the following remark which seems incompatible with everything else Berkeley is saying and makes him seem very close to Leibnizian arguments for a positive answer to Molyneux's question (cf. Leibniz, *Nouveaux Essais*, II.9.8):

I answer it must be acknowledged the visible square is fitter than the visible circle to represent the tangible square, but then it is not because it is liker, or more of a species with it, but because the visible square contains in it several distinct parts, whereby to mark the several distinct corresponding parts of a tangible square, whereas the visible circle doth not. The square perceived by touch hath four distinct, equal sides, so also hath it four distinct equal angles. It is therefore necessary that the visible figure which shall be most proper to mark it contains four distinct equal parts corresponding to the four sides of the tangible square, as likewise four other distinct and equal parts whereby to denote the four equal angles of the tangible square. And accordingly we see the visible figures contain in them distinct visible parts, answering to the distinct tangible parts of the figures signified or suggested by them (Berkeley, New Theory of Vision, § 142).

I must confess that I cannot think of an interpretation of this passage which would make it fit with the rest of Berkeley's remarks on the topic. It is hard to see how he could make this remark.

PROBLEMS

Where does all this leave Berkeley or a Berkeleian stance on Molyneux's problem? One might want to say that nobody could be more decisive in their negative answer to Molyneux's question. But things are not quite as straightforward as they might look at first sight. It is not even clear whether Berkeley can accept Molyneux's question or rather would have to reject it

as basically mistaken. It is interesting in this context that Berkeley makes the following remark in passing:

a blind man from his birth would not, at first sight, denominate anything he saw by the names he had been used to appropriate to ideas of touch, *vide* sect. 106. Cube, sphere, table are words he has known applied to things perceivable to touch, but to things perfectly intangible he never knew them applied. [...] In short, the ideas of sight are all new perceptions to which there be no names annexed in his mind: he cannot therefore understand what is said to him concerning them: and to ask of the two bodies he saw placed on the table, which was the sphere, which the cube? Were to him a question downright bantering and unintelligible (Berkeley, *New Theory of Vision*, § 135).

I think Berkeley is right here. Furthermore, not only could the person not understand the question but Berkeley himself cannot accept the question Molyneux is asking. Why not?

Molyneux's question concerns the possibility of recognizing a seen object as a globe or cube when these very concepts have already been used on a tactile basis. This, however, is not possible, according to Berkeley. No tactile concept is identical with any visual concept.

Can he reformulate the question in a way which would be acceptable to him? He would have to index the predicates "globe" and "cube" to sense modalities ("v" and "t"). Furthermore, he does assume that for no predicate "F" is it true or could it be true that any particular F-t = some particular F-v. Here is an attempt to reformulate Molyneux in a Berkeleian way:

Suppose a Man born blind, and now adult, and taught by his touch to distinguish between a Cube-t, and a Sphere-t of the same metal, and nighly of the same bigness, so as to tell, when he felt one and t'other, which is the Cube-t, which the Sphere-t. Suppose then the Cube-t and Sphere-t placed on a Table, and the Blind Man to be made to see. Quaere, Whether by his sight, before he touch'd them, he could now distinguish, and tell, which is the Globe-v, which the Cube-v.

Or, to make it even clearer that tactile and visual objects and concepts are fundamentally different, let us use different terms for the seen objects, "X" and "Y":

Suppose a Man born blind, and now adult, and taught by his touch to distinguish between a Cube-t, and a Sphere-t of the same metal, and nighly of the same bigness, so as to tell, when he felt one and t'other, which is the Cube-t, which the Sphere-t. Suppose then the Cube-t and Sphere-t placed on a Table, and the Blind Man to be made to see. Quaere, Whether by his sight,

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On a comparison of Deark 1969.

before he touch'd them, he could now distinguish, and tell, which is the X, which the Y.

This, however, has very little, if anything to do with Molyneux's question. It does not even make sense. We should therefore not see Berkeley as someone who proposed a negative answer to Molyneux's question but rather as someone who blocked the question from the beginning. Insofar Berkeley differs very much from Molyneux and Locke²⁰. But doesn't Berkeley sometimes give us the impression that he wants to answer that question? And shouldn't he be able to do so? One might reply that Berkeley draws the carpet away under Molyneux's question. But this cuts the other way, too: Perhaps his inability to even formulate the question speaks against his theory?

There are also more general questions —not necessarily specific to Berkeley's view on Molyneux— which deserve to be mentioned. I want to go into two of them. First some comments on Berkeley's ideas about the correlation between visual and tactual ideas. The experience of a correlation between certain types of tactual experience and certain types of visual experience will never give us more than just that, —a correlation. If the two types of experience are indeed totally different, and if we make the further assumption that visual experience in itself is non-spatial or at least not three-dimensional, then it is hard to see how we should ever get to spatial, two- or even three-dimensional vision out of that correlation. This seems excluded by even the basic assumptions of the Berkeleian argument.

Closely connected with this is the further point that for the Berkeleian, visual experience will always consist of what Kant called "sensation", a "perception that refers solely to the subject, viz., as the modification of the subject's state" (like pain, for instance); we will not get to "objective perceptions", that is, to representations of objects (Kant, KrV, A 320/ B 376). What we need for that, is reference to more than two-dimensional objects. When Berkeley talks about "the objects of sight" (Berkeley, New Theory of Vision, § 49), he does not mean "object" in the usual sense. Our visual experience is, given the Berkeleian argument, not the experience of an objective world but rather a subjective experience that correlates in mysterious ways with objective tactile experiences. According to the Berkeleian argument, Molyneux's person could perhaps be made to see but not to see something. And even if there were some kind of mechanism that would lead to objective and spatial visual experience, the link could not be based on transfer of information and would lack all justification. Given that We have objective and spatial visual experience, the Berkeleian theory looks

On a comparison of Locke's and Berkeley's reaction to Molyneux's problem cf., among others, Park 1969.

like a non-starter. A similar problem also arises for Locke and Molyneux if they do not go with option (a) above and assume that visual experiences are three-dimensional from the start.

The second problem I wanted to mention goes a bit further and concerns both Berkeley's views and the less radical ones by Locke and others (who did not assume that the ideas of sight and touch have nothing whatsoever in common). Suppose visual and tactile representations of globes (or cubes) are indeed so different that the person cannot identify seen and touched globes (or cubes) without further inductive experience. Molyneux's person would have to start with very different (tactual and visual) experiences and induction would tell her that there is a correlation between the two types of experiences. Is this sufficient for the characteristic unity of our experience as the experience of one world? How would Molyneux's person experience the world? She would visually experience a class of objects A and tactually experience a class of objects B, and she would also find that there is a correlation between As and Bs. But there seems to be one important thing she cannot find out by induction: namely, that particular As are identical with particular Bs. It is hard to see how she should be able to find out that her visual and her tactile experience of the same object are indeed different experiences of the same object. The person would rather live in a Berkeleian "double world": one world filled up with tactile things and the other world filled up with visual things. There would be a clear correlation but she could not find out that it is just one and the same world. Or, at least: Nothing would justify her in believing that. Moreover, we would have a good reason even to doubt that her experience would be of something objective²¹. Given that our experience of the world is the experience of one, objective world, the experiential correlation scenario is a non-starter. It seems that we need at least some very basic cross-modal perception (certainly allowing for differences between sensual modalities) in order to be able to have the experience that we do in fact have. It seems that the objectivity of our experience presupposes its unity which in turn presupposes some cross-modality. It is interesting to see how close one gets to Kant if one thinks about these things²². Even though Kant has apparentlynot dealt with Whatever we thin seems fair to say that problematic but also Molyneux's question

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Molyneux's question in his philosophy²⁴. Whatever we thin seems fair to say the

²¹ Cf. Eilan 1993, 246-251 who holds that the idea of an external, mind-independent world requires some cross-modality of place representation. Her argument for this thesis does not parallel the above argument. Ganeri 2000, 647 argues in the opposite direction: Cross-modal experience of an object presupposes that one's experience is of an objective world which in turn presupposes the idea of a numerically identical self.

 $^{^{22}\,}$ Cf., of course Kant, KrV, A 95ff., B 129ff. I leave the question open how close to Kant we should or need to get.

However, he short Kant, KpV, AAV, 13). It would require a lyneux's question. Cirreply than the one independent

Molyneux's question²³, we can find important resources for an answer to it in his philosophy²⁴.

Whatever we think of Kantian approaches to the Molyneux problem, it seems fair to say that Berkeley's or a Berkeleian position is not only very problematic but also sheds some skeptical light on other ways of answering Molyneux's question in the negative.

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However, he shortly mentions Cheselden in the preface to the *Critique of Practical Reason* (cf. Kant, KpV, AA V, 13).

It would require a different paper to try to find out how Kant would or could have answered Molyneux's question. Cf. however Sassen 2004 who deals with a different aspect of a possible Kantian reply than the one indicated above.

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PERSPECTIVAS DE LA MODERNIDAD SIGLOS XVI, XVII Y XVIII



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Jean Paul Margot Mauricio Zuluaga *Editores*



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Cali, Colombia Septiembre de 2011

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