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Anne Reboul*

Much ado about nothing: a commentary on Auletta's paper

Auletta's paper is, among other things, a criticism of Dretske's theory of representation. In this comment, I introduce some of Dretske's notions, which are either not introduced or not properly used by Auletta. I then show that taking these notions into account is enough to defeat Auletta's criticisms.

Beaucoup de bruit pour rien: un commentaire sur l'article d'Auletta: l'article d'Auletta est, entre autres choses, une critique de la théorie de la représentation proposée par Dretske. Dans mon commentaire, je rappelle certaines notions dretskeennes, qui soit ne sont pas introduites soit ne sont pas correctement utilisées par Auletta. Je montre que ces notions suffisent à détruire les critiques d'Auletta.

Key words: representation, reversibility, causality

Mots-clé: représentation, réversibilité, causalité

1. INTRODUCTION

Auletta's paper can be said to have three main components: a historical overview of past theories of representation, a presentation and criticism of current causal theories of representation (mainly Dretske's, Lloyd's and Perner's) and a personal theory of representation. I will leave aside here the historical aspect and will rather concentrate on the two questions which the rest of his paper raises. These are: is Auletta's criticism of current causal theories of representation well-founded? If it is well-founded, is Auletta's own view of representation really convincing? I will not have much to say about the second question because it is my opinion that Auletta's criticism of causal theories of representation is misguided, and that his own theory is too embryonic for anyone to have anything precise to say about it.

Auletta begins by raising two questions about representation: 1) Under which conditions may we say that an entity is a representation of something else? 2) What is the guarantee that our (mental or internal) representations corresponds to or are in accord with external objects? He remarks that "in cognitive sciences the two questions are strictly linked" (Auletta, 2003, p. ?). This is a claim which may be too strong at least in Dretske's account of representation. Auletta then reminds the reader that a central ingredient in Dretske¹ is the notion of a causal link between a representation and that which it represents. He points out that for A to be the cause of B, the two following counterfactuals should be verified: *If A had not occurred, then B would not have occurred* and *If B had not occurred, then A would not have occurred*. He adds (rightly) that causality is an asymmetrical relationship, in that the existence of B depends on the existence of A, but not *vice versa*. Hence, if the relation can be reversed, whatever else it might be, it cannot be causal in nature. It is Auletta's contention that the relation between a representation and its object can be reversed. From that, he correctly deduces that representation cannot be causal. If Auletta's premise on the reversibility of representation is correct, his conclusion is valid. If, however, it is false, then the conclusion is not valid (i.e. it might still be true, but it certainly has not been proven and Auletta cannot rely on it). It is my contention that Auletta has not shown the relation of representation to be reversible and this is independent of whether it is a public representation or a mental representation which is considered. It is also my contention that Auletta has not correctly taken into account the very

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¹ Dretske being Auletta's main target, I will be mainly concerned with his work here.

sophisticated theory of representation proposed by Dretske (see Dretske, 1995). I will begin by recalling a few major tenets of Dretske's account to which I think Auletta has not given sufficient attention.

2. DRETSKE'S NOTION OF FUNCTION

Dretske's account of representation gives the central role not so much to the notion of *cause* as to the notion of *function*. In other words, "the fundamental idea is that a system, S, represents a property, F, if and only if S has the function of indicating (providing information about) the F of a certain domain of objects. The way S performs its function (when it performs it) is by occupying different states s_1, s_2, \dots, s_n corresponding to the determinate values f_1, f_2, \dots, f_n , of F" (Dretske 1995, p. 3). Strictly speaking, the description given by Dretske of the workings of S relies on covariation: variation in the values of the property for the object represented is accompanied by variation in the states of the system. Covariation is not strictly speaking causal: it could be reversed. Indeed, if anything, it can be linked to that slightly mysterious but undeniably weak relation, *supervenience*. Clearly, supervenience, being the weaker relation, can be compatible with either identity or causality, though not with both. So, what is it that makes the notion of representation irreversible or causal for Dretske, given that covariation, though necessary for the system to perform its function, is in itself neither causal nor irreversible? It is quite simply the fact that the system has the function of representing certain properties of a domain of objects, while the objects in that domain do not have the function of representing the properties of states of the system. This, in effect, is what makes representation irreversible. It also is what makes it causal: given that S has the function of representing the F of an object, k , while k has not the function of representing the states of S, variations in the states of S are produced by variations in the F of k , though variations in the F of k are not produced by variations in the states of S. In other words, variations in the F of k cause variations in the states of S, but variations in the states of S do not cause variations in the F of k . This, by the way, is how Dretske answers Auletta's second question about the guarantee of correspondance between (mental) representations and external objects.

3. DRETSKE'S DISTINCTION BETWEEN REPRESENTATIONAL FACTS AND FACTS ABOUT REPRESENTATIONS

Dretske (1995) introduces a distinction between representational facts and (mere) facts about representations. Representational facts are facts about the function that a given representational system, S, has. Any other facts about S are facts about S as a representation but are themselves not representational facts. This is where the link which Auletta sees between the question of what a representation is a representation of and the question of the guarantee of a correspondance between a representation and what it is a representation of is too strong. The second question has to do with a representational fact (the function of S), while the first has to do with a non-purely representational fact. Indeed, according to Dretske, a representation represents an object (its reference) through a contextual relation, C. This contextual relation is external to the representation and is, indeed, the causal part of Dretske's account under the conditions indicated above (see the end of § 2). Thus, "the fact that it is k (rather than some other object or no object at all) that stands in relation C to the representation is not what the representation represents. Representations do not (indeed cannot) represent context" (Dretske, 1995, p. 25). This has a few interesting consequences: first of all, though facts about the function of S are representational facts, facts about the object represented are not — at best, they are *hybrid* facts —; then, though representational facts are available to introspection, facts about what object is represented are not, when the representation under consideration is mental; finally, there are two kinds of misrepresentations, one in which a

property is falsely attributed to an object by a representation (a representational fact) and one in which there is no object (at best, an hybrid fact). Thus, and this is where the link actually stands, k stands in relation C to S and, if S is functioning properly, there is an asymmetric covariation between the properties of k (the values of the F of k) and the states of S . These two things, the C relation between k and S , and the covariation of the F of k and of the states of S , are the answers provided by Dretske to Auletta's two questions. A last clarification is in order: Auletta claims that the function of S "is strictly dependent on either a derived or an intrinsic intentionality" (Auletta, 2003, p. ?). Though this sentence is not very clear, it seems to mean that S has the relevant function because either it was designed to have it (non-natural systems) or has evolved it (it is clearly Darwinian evolution which is meant by Dretske regarding natural systems). This indicates that Auletta takes *intentionality* (and associated expressions) in the vernacular sense (e.g. *I intend to buy a book*) rather than in the technical sense. If this is the case, I do not think that representations have an "intrinsic intentionality" on Dretske's account: non-natural representations are clearly intended in Auletta's sense, natural representations clearly are not.

4. AULETTA'S EXAMPLES OF REVERSIBILITY

Some of Auletta's examples — indeed, most of them — are used to derive conclusions which they quite obviously do not warrant. For instance, "If I only know Chirac through pictures and if I see him in the street, surely my first reaction will be to try and identify the person I see in the street by comparing him with the image I have acquired through magazine and newspapers pictures. In other words, here we have the real person who is somehow a representation of a picture of himself" (Auletta, 2003, p. ?). The last comment is quite mysterious: identifying a person through his/her representation is quite a standard use of the representation. It does not make the person a representation of the picture. Why should it? Unless the person somehow changes its appearance and unless this variation is directly caused by features of the picture (which, by the way, would make it the function of the person to represent the features in question, a debatable claim), it makes no sense to say that the person is a representation of his/her picture. The same is true of the passport photograph example. It is indeed because the photograph on a passport has the function of representing the bearer of the passport, that it makes sense to identify the bearer from the photograph. There is no reversibility there.

Auletta enters into a rather fuzzy discussion of the fact that different pictures can represent the same object². It is hard to see what this is supposed to be an objection to. Let me just say that presumably he has forgotten the very precise discussion of Dretske between the *sense* of a representation (the properties it represents an object — whether existent or not — as having) and the *reference* of the representation (the object it is a representation of). Given that an object can be represented as having such and such properties, different representations of the same object can represent it as having different sets of properties (think about different modalities, or of representations in the same modality but at different times).

Another rather fuzzy discussion in Auletta's paper is to the effect that "the same thing or the same medium can also represent different referents" (Auletta, 2003, p. ?). His example is of stones used in representing the relative positions and movements of cars in a car crash. The same stones could then be used to represent something else. Auletta thinks that this example shows that structural complexity (contrary to what Dretske says, he claims) is not necessary to representation because none of the stones has representational parts. This first criticism

² He also inserts some fashionable cultural relativity in the discussion. It is hard to see its relevance in this context. The fact that Amerindians might not know the function of photographs or ignore the mechanism of a camera is quite irrelevant to the discussion.

seems, to say the least, misguided: each stone represents a given vehicle in virtue of the representational system it is a part of and that system has representational parts (the different stones). The second criticism is even more misguided as the following quotation shows: "abstractly, (...), could the same stone represent, in two different contexts, represent different things? The answer is obviously yes" (Auletta, 2003, p. ?). Indeed it is and this is just a vindication of what Dretske says about the C relation between representation and represented: it is a contextual relationship. Nothing important seems in question here. More interesting are the issues of models or blueprints on the one hand and of misrepresentation on the other hand.

5. DRETSKE'S DISTINCTION BETWEEN SYSTEMATIC AND ACQUIRED INDICATOR FUNCTIONS

Dretske distinguishes between *systematic indicator functions* (those indicator — or representational — functions which a state derives from the system it is a state of) and *acquired indicator functions* (those indicator — or representational — functions which it acquires from the type of state of which it is a token). Typical examples of the first are *qualia* (phenomenal and non conceptual states). Typical examples of the second are *concepts* and presumably some conventional means of representation (e.g., language). You can have misrepresentation in systematic indicator functions when the system does not work properly and the misrepresentations that you get in such situations can be of the two sorts discussed above (false attribution of properties or absent object). Such misrepresentations are not an objection to Dretske's account: the very fact that the account is centered on the notion of function makes it partly teleological, hence normative, hence open to the possibility of misrepresentation.

Misrepresentations arising from acquired indicator function are most interesting in that they can be willfully produced: this is the case (in different ways, see Reboul, 1990, 1999) for both lies and fiction. More explicitly, the acquired function is supposed to indicate that the corresponding systematic function is realized. This opens the door to willful misrepresentations, because it opens the possibility of having the acquired indicator function without having the corresponding systematic function. This is how both fiction and lies are produced. It may also be the case that it is what underlies models and blueprints.

Here, I think that a few words are indicated regarding relations of fit. It seems clear that representations with systematic indicator function can have only one relation of fit: the world-representation one (i.e. the state of the world determines the state of the representational system). This is clearly the case for experience and, as pointed out above, misrepresentation in such cases, though possible, cannot be willful. However, representations with acquired indicator functions can have both directions of fit: world-representation and representation-world. This will depend on whether the acquired function in the representation is supposed to indicate that the corresponding systemic function is realized or whether it is not supposed to indicate such a thing. Clearly, descriptions, whether truthful or not, pictures (drawings and pictures³), etc. are acquired indicator functions which are supposed to indicate that the corresponding systemic functions are realized. Just as clearly, models or blueprints are not, just as orders and wishes are not: they are (or use) acquired indicator functions to indicate what states of affairs should be realized for the corresponding systematic indicator functions to be realized. Again, this does not seem to be a menace for Dretske's account of representation.

³ Note that, by the Dretske's definition, photographs are presumably systematic indicator functions.

6. CONCLUSION

Dretske's account of representation may not be a good account of representation, but Auletta has failed to show that it is not. It also may not be the best account of representation that we have, but Auletta again has failed to show that it is not. Maybe the best thing to say about Auletta's arguments then is *much ado about nothing*...

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