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Studi

The Mixed Blessing of Psychological Explanations

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Abstract After the recent "cognitive turn" it is commonly assumed that the domain of the cognitive is much broader than the domain of the linguistic. Consequently, the quickly decreasing appeal of "linguistic idealism" is now totally clouded by the view that language is not necessary for thought. I here highlight how the target paper is fully attuned to this mainstream view, which originally and fundamentally rejects any linguistic idealist claim. Furthermore, I propose a new formulation of an "old" methodological concern about psychological explanations, which potentially challenges the efficacy of any argumentative strategy hinging on higher order cognitive capacities.
KEYWORDS: Psychological Explanation; Morgan's Canon; Cognitive Turn; Mentalizing; Nonlinguistic Thought.

Riassunto *Croce e delizia delle spiegazioni psicologiche* – Dopo la recente "svolta cognitiva" è diventata un'assunzione comune ritenere che il dominio della cognizione sia più ampio di quello del linguaggio. Di conseguenza, il repentino calo di attrattività da parte dell'"idealismo linguistico" è ora completamente oscurato dall'idea per cui il linguaggio non sia necessario per il pensiero. In questa sede vorrei sottolineare come le tesi dell'articolo target stiano in piena sintonia con questa concezione dominante, che rifiuta sin nei fondamenti ogni pretesa dell'idealismo linguistico. Vorrei inoltre proporre una nuova formulazione per una "antica" preoccupazione metodologica in materia di spiegazioni psicologiche, potenzialmente capace di porre in questione l'efficacia di ogni strategia argomentativa che faccia leva su capacità cognitive di ordine superiore.
PAROLE CHIAVE: Spiegazioni psicologiche; Canone di Morgan; Svolta cognitiva; Mentalizzazione; Pensiero non linguistico.

THE RECENT "COGNITIVE TURN" IN disciplines dealing with mind, brain, and behavior, has triggered many significant changes in the way in which both human and non-human cognition is currently understood. In the last few decades, empirical studies from different fields have provided us with sufficient evidence in support of the hypothesis

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that higher-order cognitive capacities are not unique to linguistic creatures.

Currently, research programs and practices in the study of animal behavior, early human development, and human evolution, typically share the common assumption that the domain of the cognitive is much broader than the domain of the linguistic. In other words, the turn has triggered a dramatic change in perspectives on language and its relation to thought. The view that thought depends on language, so that *the study of the thought is entailed by the study of language*, has been seriously challenged. A new tenet is currently dominating the scene: language is not necessary for thought. Accordingly, the study of thought does not proceed from the study of language.

Such context provides the standard theoretical framework for various disciplines. The study of animal behavior is now mainly shaped as cognitive ethology:[1] studies are often designed on the assumption that animals act in accordance with their intentions, desires, or fears; all the same, behavioral data are explained in terms of mental state attributions.[2] In developmental psychology, the widespread usage of the violation-of-expectation paradigm,[3] is an index attesting the deep influence of the cognitive turn in the study of prelinguistic children. In fact, the attribution of the capacity to make predictions to infants is taken as an a priori assumption at the very core of this specific methodological strategy, which aims at investigating infant knowledge, and conceptual understanding.

Evolutionary anthropology, cognitive archeology, and the study of human prehistory are also in accordance with the cognitive approach, as they look for data, along the hominid evolution, suggesting the possession of (higher-order) cognitive capacities far before the possible date of the emergence of language.[4] Finally, there is one more feature shaping the current debate on cognition, that is, the account of cognition and its relations to language is often tempered with an *evolutionary* stance.

This is not surprising, as the signs of the cognitive turn trace back to the writings of Charles Darwin, who first thematized the research hypothesis, currently most widely accepted, that differences in intellect, communication, social skills, emotions, etc., across species are a matter of degree, rather than a matter of kind. Likely, such an hypothesis is the most striking one, when the differences between human and non-human animals are at issue. Hinges and threats of the cognitive approach are both envisaged in the following comment on vultures by Charles Darwin:

> These voltures certainly may be called gregarious, for they seem to have pleasure in society, and are not solely brought together by the attraction of a common prey. On a fine day a flock may often be observed at a great height, in the most graceful evolutions. This is clearly performed for the mere pleasure of the exercise, or perhaps is connected with their matrimonial alliances.[5]

This comment allows us to appreciate Darwin's "mentalizing" about vultures (they behave out of mere *pleasure*), as well as his more cautious premises ("...they *seem* to have pleasure..."), and afterthoughts ("...or *perhaps* is connected with their matrimonial alliances"). Here, one critical aspect of the study of behavior, and more generally, of the treatment of third-person data, becomes quite obvious: are we allowed to infer higher-cognitive capacities from observed behavior? In other words, is it methodologically correct, to interpret third-person data in terms of beliefs, desires, hopes, and even consciousness and self-awareness?

This type of methodological problem has been discussed throughout the last century, and certainly the paradigm shift has dispelled suspicion about psychological explanations of nonlinguistic behavior. The body of evidence about supposedly displayed higher-order mental abilities in animals from vari-

ous species as well as in young infants, argues in favor of a more naturalistic approach to cognition, one in which the role of language is not as pervasive in thought as it was once considered to be. Lately, and in accordance with the principles of the paradigm shift, the view that thought is essentially grounded in language, as is consciousness, is no longer so popular.

Cosentino and Ferretti's contribution is very well attuned to the recent turn to the cognitive, which regards *thought* as *independent from language*. Along the lines of the mainstream perspective, they provide a criticism of the position, labeled as "linguistic idealism", which despite being a minor one, still enjoys the strong support of philosophers including, among others, Daniel Dennett, Peter Carruthers, and Andy Clark. Their assessment of linguistic idealism is mainly based on the argument that some high-order capacities, namely, the capacity for metarepresentation, and so-called *Mental Time Travel* (MTT), are not uniquely human; in support of such a conclusion, the authors present and discuss a collection of empirical data, suggesting that both metare-presentation and MTT are indeed displayed to a certain degree by non-linguistic creatures.

Thus, they conclude, (i) it is not the case that the capacity for metarepresentation and for MTT depend on language, and (ii) they should rather be understood as precursors of language. As a result, the claim of linguistic idealism, that thought is dependent on language, is replaced by the claim that (iii) language is dependent on thought. More importantly, the discussion of metarepresentative capacities is used by the authors in support of an original account of the origin of human subjectivity, or sense of the self.

Given the role traditionally attributed to metarepresentative capacities and MTT with respect to the formation of human subjectivity, they argue, from (i) and (iii), it follows that (iv) human subjectivity is also independent from language in some essential way. From (iv) one can also infer the implicit claim that concepts such as "subjectivity" and "sense of the self" should not in principle be confined to the domain of the human: if the origin of (human) subjectivity, understood as sense of the self, is autonomous and independent from language, then (v) it is possible that the sense of the self also applies to nonlinguistic creatures (although to a different degree).

Notably, (v) places itself at the most extreme frontiers of the cognitivist horizon, if even the most optimistic Griffin cannot but denounce the intrinsic difficulties entailed by the question of subjective consciousness:

> The behavioristic admonition that scientists cannot learn anything at all about nonhuman consciousness is rapidly becoming obsolete [...] But determining the content of an animal's conscious awareness remains formidably difficult.[6]

Moreover, as a common thread of the current dominant view on cognition, Griffin recalls the Darwinian tenet that any difference between human and non-human subjective consciousness «is probably one of degree rather than kind».[7] The resonance of the Darwinian tenet looms large in the target paper. In the light of the above reflections, the main challenge for the account proposed by the authors is not really linguistic idealism, and its potential arguments against the cognitive approach.

If the cognitive approach, as well as the view defended in the target paper, attracts enemies, it is perhaps more likely, I would argue, that they will be found "in the house". Admittedly, Griffin exactly points this out:

> However, scientists reluctant to infer subjective consciousness in animals often claim that whatever an animal, or a human, does *might* be accomplished unconsciously [...] Total certainty is not attainable, even when we inquire about the thoughts and feelings of our human companions.[8]

To put it briefly, the cognitive paradigm seems to be intrinsically affected by the traditional philosophical disease of epistemic solipsism, which in the contemporary debate extends well beyond the domain of the human. Yet, this disease is not really life-threatening, given that, differently from Descartes, we might well be content even with a *less* than certain knowledge.

In the current context, the behavioristic assumption that the mind and the mental should not be invoked when providing explanations of observable data, has been dismissed at once. However, the methodological concern directly related to the old philosophical disease, and affecting the turn to the cognitive at its very foundations, now calls for explanation.

In fact, one main side effect of the cognitive turn is the common usage of psychological explanations applied to nonlinguistic creatures, be they young children, or non-human animals. When discussing the results of empirical studies in experimental psychology, comparative psychology, or ethology, researchers make use of mental terms for explaining observed behavior. The attribution of thoughts (beliefs, desires, hopes, fears, etc.) to nonlinguistic creatures constitutes the common *practice of explanation*, without which the cognitive research paradigm would not exist.

In 1804, Lloyd Morgan thematized a methodological principle for experimental psychologists and comparative psychologists in particular, which is known as Morgan's Canon. One of the formulations of the principle is expressed in evolutionary terms:

> MC: In no case is an animal activity to be interpreted in terms of higher psychological processes, if they can be fairly interpreted in terms of processes which stand lower in the scale of psychological evolution and development.[9]

Morgan's Canon might certainly be used to cast doubt on the very foundation of the cognitive turn, as it provides the grounds for rejecting the practice of explaining the behavior of non-speaking creatures in terms of beliefs and desires. However, such a methodological principle is not to be intended as a version of the claim typical of logical behaviorism that the mental should be paraphrased away and reduced to behavioral attitudes, nor it is suggested that we should get rid of psychological explanations entirely. A more cautious interpretation of Morgan's Canon is offered by Bermudez:

> But, at minimum, Morgan was suggesting that we should not trust psychological explanations of behavior unless we are convinced that those explanations are indispensable – that is to say, unless we are convinced that the behavior in question cannot be explained in nonpsychological terms.[10]

Thus, Morgan's Canon constitutes more a cautious methodological principle, rather than a reason for abandoning the cognitive approach to the study of nonlinguistic behavior. Similar to the precious role played by Ockham's razor in limiting any metaphysical redundancy, the Canon functions as a measure for limiting recourse to "the mental". In brief, and above all, the Canon indicates methodological prudence: the suggestion is to avoid using psychological explanations when they are not strictly necessary.

The implicit assumption is, clearly, that *psychological explanations* are placed at the higher levels on an explanatory scale; more-over, it is also automatically entailed that at the lower levels of the scale one finds simpler features, which are less demanding from both a methodological and metaphysical point of view.

It should be noted that Morgan's Canon can be extended so as to incorporate the Darwinian tenet about degrees. The extended formula might sound like this:

> MC^{+}: in no case is an animal activity to be interpreted in terms of higher psychological processes, if it can be fairly interpreted in terms of processes which stand lower in

> the scale of psychological evolution and development. Moreover, assuming that higher psychological processes themselves come in degrees, in no case is an animal activity to be interpreted in terms of higher-level psychological pro-cesses, if it can be fairly interpreted in terms of lower-level psychological processes.

In particular, MC^+ entails the idea that when explaining behavior in terms of, for example, subjective consciousness, it is good practice to acknowledge the fact that subjective knowledge comes in degrees.

Of course, this is not in conflict with the points made by Cosentino and Ferretti. At the same time, MC^+ suggests prudence also in the consideration that a certain cognitive capacity (e.g., pretense play, metare-presentation, deception, etc.) may possibly manifest dramatically diverse features across the various degrees. Incidentally, my intuition is that the *taxonomy* of cognitive capacities (often shaped as "modules") requires further investigation, as it constitutes the starting point for the practice of psychological explanation in empirical studies.

Finally, the problems at issue might also be stated in epistemological terms. Suppose that nonlinguistic creatures do have thoughts (beliefs, desires, hopes, etc.): how are we *to know* their mental contents, given that we only have access to third-person data, as behavior or patterns of behavior?

Clearly, the inference that is made by researchers when attributing thoughts to nonlinguistic creatures on the sole basis of the collected behavioral data, resembles the inference at work on a daily basis for each of us, when engaged in explaining, and predicting people's behavior (leaving aside our own behavior).

However, what makes the case of thought attributions to nonlinguistic creatures methodologically problematic, is that we currently lack a proper understanding of how the thought of a nonlinguistic creature might differ from the thought of a linguistic creature.

Moreover, it should be noted that the very idea that the study of thought depends on the study of language – a view only apparently related to the thesis of linguistic idealism – is *not necessarily* incompatible with the existence of nonlinguistic thought. In fact, it may well be that a thinker entertains a thought without being able to express it. This is the place in which the methodological problem turns into a metaphysical one: in order to find strong support for the methodology entailed by the cognitive research program, we would first need to explain the metaphysics of nonlinguistic thought.

If thought can be understood independently from language, then a better grasp of the distinctive traits of nonlinguistic thought, as well as a clearer idea of the extent to which nonlinguistic thought differs from linguistic thought, is especially desirable.

Notes

[1] See D.R. GRIFFIN, *Animal Minds: Beyond Cognition to Consciousness*, University of Chicago Press, Chicago 2001.

[2] The effects of the cognitive turn on the study of animal behavior are almost ubiquitous. See, a.o. M. BEKOFF, C. ALLEN, G.M. BURGHARDT (eds.), *The Cognitive Animal: Empirical and Theoretical Perspectives on Animal Cognition*, MIT Press, Cambridge (MA) 2002; C. ALLEN, M. BEKOFF, *Species of Mind: the Philosophy and Biology of Cognitive Ethology*, MIT Press, Cambridge (MA) 1997. The recourse to mentalistic terms for data explanation is also coupled with biological and neuroscientific data (e.g., S. WATANABE, T. TSUJII, J.P. KEENAN (eds.), *Comparative Social Cognition*, Keio University Press, Tokyo 2007).

[3] See R. BAILLARGEON, E.S. SPELKE, S. WASSERMAN, *Object Permanence in Five-Month-Old Infants*, in: «Cognition», vol. XX, n. 3, 1985, pp. 191-208.

[4] See M. CORBALLIS, E.G.L. LEA, *The Descent of Mind: Psychological Perspectives on Hominid Evolution*, Oxford University Press, Oxford 1999.

[5] C. DARWIN, *The Voyage of the Beagle*, (*Excerpts from Charles Darwin, Journal of Researches into the Natural History and Geology of the Countries Visited During the Voyage of H.M.S. Beagle Round the World: Under the Command of Capt. Fitz Roy*

(1845), White Star Publishers, Vercelli 2006, p. 89.
[6] D.R. GRIFFIN, '*Afterword: What Is It Like*?', in: M. BEKOFF, C. ALLEN, G.M. BURGHARDT (eds.), *The Cognitive Animal*, cit, pp. 471-473, here p. 471.
[7] *Ivi*, p. 472.
[8] *Ibidem*.
[9] L. MORGAN, *An Introduction to Comparative Psychology*, Walter Scott, London 1903, p. 59.
[10] J.L. BERMUDEZ, *Thinking Without Words*, Oxford University Press, Oxford-New York 2003, p. 7.