Diskussion/Discussion

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Comment on Ausonio Marras: Intentionality and Physicalism: a Resolvable Dispute *(Analyse & Kritik 1/80)**

Abstract: This paper explores the nature of the dispute between the competing theses of intentionality and physicalism, as discussed by A. Marras in his paper "Intentionality and Physicalism: a Resolvable Dispute". Although as originally conceived neither thesis is viable, it is apparent that a physicalist account of human behavior must take into consideration the intentionality of human behavior. This paper reviews a recent attempt to give a physicalist reconstruction of intentionality and shows that such an approach succeeds in providing scientifically acceptable explanations of human behavior without needing to answer the metaphysical questions that this dispute implies.

I.

The antagonism Ausonio Marras identifies in his paper "Intentionality and Physicalism: a Resolvable Dispute" (1980), between intentionalism and physicalism is primarily a dispute about the adequacy of models purporting to explain human behavior. Physicalists argue that the only scientifically valid explanations of human behavior are those framed in terms of observable physical phenomena. In opposition to this view, intentionalists argue that an adequate account of human behavior must also include reference to mental phenomena, phenomena that are uniquely characterized by the logical property of intentionality. The controversy, hence, takes the form of a dispute about the ultimate constituents of reality. Does physical matter solely constitute the whole of scientifically significant reality or are there, in addition, non-physical or mental phenomena which must be appealed to in attempting to explain conscious behavior?

For Brentano intentionality (or intentional inexistence) is important because it stands as a logical mark that can be used to distinguish mental or psychological phenomena from non-mental or physical phenomena, and as such suggests a dualist metaphysics. The logical property of intentionality, according to Brentano, "is exclusively peculiar to psychical phenomena. No physical phenomena show anything similar. Consequently, we can define mental phenomena by saying that they are such phenomena as include an object intentionally within themselves" (1874).

Chisholm, in adopting a linguistic variant of the thesis of intentionality, argued that in order to *describe* psychological phenomena it is necessary to use intentional language, which we do not need to use when describing non-psychological or physical phenomena (1958). In other words, the language we use to describe psychological phenomena is not only unique to this phenomena, but because it is intentional it cannot be analyzed into a language using purely physical terms. Thus in order to give an adequate account of human behavior we must use language that makes reference to non-physical or intentional phenomena. Chisholm concludes that if this linguistic formulation of the thesis of intentionality is true "then followers of Brentano would have a right to take some comfort in this fact" (1958). Indeed, he asserts that if it could be shown that *only* psychological phenomena can be described by intentional language "then the basic thesis of physicalism and the unity of science is false" (1967).

The thesis of physicalism has historically had various formulations from Lucretius through Hobbes, and as its name suggests, the essential ingredient of each is the thesis that physical phenomena are the basic constituents of reality. Generally, it is implied that the only acceptable explanations of human behavior are those framed in terms of the language of physical things. In contemporary analytic philosophy, the linguistic version of the thesis of physicalism is identified with the Vienna Circle and the view advanced primarily by Carnap (1932) that the language of physical things — expressed as quantitative descriptions of observable space-time points — is the language into which every meaningful statement can be translated. On this view, all the statements of science are equivalent to sentences in the physical language. "In other words, every sentence of any branch of scientific language is equipollent to some sentence of the physical language, and can therefore be translated into the physical language without changing its content" (Carnap 1932). This latter view, known as the unity of science, entails that the significant propositions of psychology can be expressed in or are logically reducible to the physical language, a view Brentano had rejected. Accordingly, because intentional sentences describing psychological phenomena cannot be logically translated into sentences in the physical language they are, on this view, epistemologically deficient, i.e. they do not add to our knowledge about significant aspects of our world. By using terms that refer to non-physical phenomena, intentional sentences are unverifiable and would therefore lack cognitive content. Hence, there is no good reason to believe that the mental entities referred to in these sentences exist. And although Carnap eschewed such metaphysical speculations, indeed, if the only significant propositions about psychological phenomena are those expressible in the physical language, then this seems to suggest that the psychological phenomena these sentences describe are nothing but physical phenomena. If so, then we can give complete explanations of human conduct in purely physical terms without need to mention mental activities. In short, those who follow Hobbes and defend a materialist view of reality could take "some comfort" in the companion thesis of physicalism and the unity of science.

Clearly, the thesis of intentionality and the thesis of physicalism, as described here, and the ontologies they suggest, are mutually exclusive and, hence, are logically incompatible points of view. There is, consequently, no non-contradictory resolution of this dispute that allows for the truth of both intentionalism and physicalism.

II.

As with most philosophically interesting disputes, this dispute is interesting, in part, because of its irreconcilability. However, disputes are also dynamic and often force a Hegelian synthesis. Carnap, for example, was forced to revise his physicalism in some fundamental ways because proposed specimen translations of propositions expressing the universal laws of science and those containing its theoretical and dispositional terms could not be adequately produced. His later view amounted to an abandonment of a strictly physicalist language in favor of a view that introduced non-physical terms referring to abstract entities and other non-observable phenomena "as theoretical constructs rather than as intervening variables of the observation language. This means that a sentence containing a term of this kind can neither be translated into a sentence of the language of observables nor deduced from such sentences, but at best inferred with high probalitiy" (Carnap 1958). In short, the reconstructed thesis of physicalism entails that the "physical" language can no longer be considered a strictly extensional language.

With this revision of physicalism, the dispute with the thesis of intentionality is resolvable on two counts. First, psychological statements, although intentional, would, nevertheless, be compatible with a "physicalist" language, provided that psychological terms referring to mental entities are understood as theoretical terms, similar to abstract terms of physics and mathematics, some of which are nomologically related or reducible to terms in the observation language. Hence, the intentionality or non-extensionality of these sentences would no longer be a sufficient reason for denying the epistemological significance of these sentences nor for excluding them from the "physical" language. Secondly, the acceptance of an intentional language of psychological and mentalistic terms does not commit one to the existence of mental entities. For Carnap, the introduction of theoretical terms into the "physical" language needed no justification because nothing is implied concerning the reality of the entities in question. Questions about the reality of entities referred to in the expanded physical language are *external* questions which cannot be answered within the bounds of the accepted linguistic framework (Carnap 1950). Thus a *reformed* physicalist could accept an intentional language without risking any commitment to the ontological status of the phenomena referred to in this language.

III.

However, a thoroughgoing physicalist concerned with developing a scientifically adequate explanation of human behavior would not find the abandonment of a purely physicalist language acceptable or desirable. The extensionality of a purely physical language that makes reference only to observable phenomena has the advantage of yielding clear cut criteria for validating claims intended to explain human behavior. Without this test any putative explanation would be no more than probable, and not always easily distinguishable from those with only partial or no explanatory value. It is, certainly, crucial that *some* of the theoretical terms of this new language are nomologically related to terms making up its observation base. It is, moreover, critical that we can draw some observational conclusions that test these explanations. But as Marras correctly shows we cannot experimentally exhaust the meanings of these non-physical terms, and since only a subset of these terms is anchored in the physical language, how are we to assure that their implied observational consequences are sufficient to justify a physicalist theory of human behavior? In other words, on what basis can we conclude that the competing explanations offered by mentalist psychologists are inherently inadequate? Moreover, if the reconstructed physical language must use terms that refer to non-physical phenomena, how is it possible to avoid an implicit commitment to entities that expand the framework of reality to include the existence of non-physical phenomena? The reply that our language is metaphysically neutral can be no more than a subterfuge aimed at denying the proponents of the thesis of intentionality their due. Generally, then, this revision of physicalism, particularly the acceptance of a non-extensional language, seems more a capitulation than a resolution of the controversy with intentionalism.

IV.

This conclusion is warranted, however, only on the assumption that the thesis of intentionality merits our acceptance. But as it is well known, the correctness of this thesis has been challenged on a number of grounds. The most important challenges are those focusing on Chisholm's attempt to specify necessary and sufficient conditions for identifying intentional sentences (Chisholm 1958). These criteria have proven inadequate to the task they were designed for because they are satisfied by sentences not exclusively about the psychological. Sentences using modalities such as "It is necessary that . . ." or other sentences like "The fire needs some coal" or "The frost may bring it about that the cliff will fall" are intentional by Chisholm's criteria, but clearly these are not sentences describing psychological phenomena. Thus some have rejected the thesis of intentionality on the grounds that no proposed set of criteria for intentional sentences identify all and only psychological sentences.

In defense of the adequacy of his criteria, and hence of intentionalism, Chisholm argues that "These sentences are not examples counter to our thesis. Anyone who understands the language can readily transform them into conditionals which are not intentional" (1958). Chisholm has, however, never specified the sense in which these non-intentional sentences would be "transforms" of the original intentional non-psychological sentence. On one plausible interpretation, this attempt to respond to criticisms concerning the adequacy of his criteria is shown to fail (Flores 1978), but a recent attempt to reconsider this defense under another interpretation seems more promising (Marras 1981). It depends, however, on methods which are themselves problematic, so, it is doubtful that it will convincingly prove the adequacy of Chisholm's criteria. Regardless, if the criteria of intentionality require these or similar special qualifications in order to account for non-psychological intentional sentences that run counter to the thesis of intentionality, this cannot but lessen the plausiblitiy which we can reasonably attach to this thesis.

Marras has suggested another approach that deserves mention (1980). Since many of these counter-examples only satisfy Chisholm's third criterion, he suggests that we drop this condition and use only the first two criteria for identifying intentional sentences, but strengthened by the following condition: "A sentence is intentional if it entails another sentence that satisfies the first or the second criterion." But this suggestion is not without problems. First, since sentences intentional on the first two criteria *entail* many non-intentional sentences, why not adopt a parallel condition where these non-intentional implications of intentional sentences would similarly be considered "intentional", i.e., "A sentence is intentional if it is entailed by another sentence that satisfies the first or second criterion"? Under this condition, the non-intentional sentence "Diogenes exist(ed)" which is entailed by the intentional sentence "Diogenes sought an honest man" would now be regarded as an "intentional" sentence. Obviously, this is unacceptable because this is not a sentence about psychological phenomena. But if we reject this condition, as we should, then we must answer the following question regarding the transitivity of intentionality: why is it sufficient to say of a non-intentional sentence that it is "intentional" if it entails an intentional sentence, but this is something we would refuse to say about the non-intentional sentences entailed by intentional sentences? This question may be academic, because on Marras' suggested condition there are numerous non-intentional sentences implying sentences satisfying Chisholm's first two criteria, but these are sentences proponents of the thesis of intentionality would *not* want to accept as "intentional" because they are not about the psychological. For example, the sentence "It is true that Diogenes sought an honest man" entails the sentence "Diogenes sought an honest man", which is intentional on the first of Chisholm's criteria for intentionality. Under this proposed condition, the former sentence would also be considered "intentional"; however this would be an unhappy result since it is not a sentence consistent with the thesis of intentionality.

The problems associated with specifying criteria that identify all and only psychological sentences as intentional have been so intractable that it is doubtful

that it can be shown that intentionality is a mark exclusively peculiar to psychological phenomena.

V.

Thus, as originally conceived the dispute between physicalism and intentionalism cannot be regarded seriously, since neither position can withstand the force of criticisms leveled against it. And the attempted "linguistic turn" which these two views take as a strategy for developing a model purporting to explain human behavior, appears, in the final analysis, to fail.

In recent years, however, the prediction that the mathematician John von Neuman made, nearly a half century ago, that developments in computer science would resolve questions as to whether human behavior is the result of mental or physical processes, seems more encouraging. As a result of an interdisciplinary approach by scholars from philosophy, psychology, linguistics, neuroscience, and artificial intelligence, the possibility of developing a mechanical model of cognitive behavior that adequately accounts for the intentionality it exhibits has produced some promising results (see: Sayre 1976; Dennett 1978; and Chomsky 1980).

But what has proven promising is the adequacy of the *explanations* that this functionalist or cognitivist model generates, rather than its answer to questions regarding the ontological status of "minds". As Marras correctly indicates, the question as to whether minds are really physical is left open and unanswered. However, as an explanatory strategy, it grants the intentionalists' claim that the intentionality of human behavior must be accounted for, but denies that only non-physical phenomena can exhibit such a quality. By conceiving of the "mind" as a very sophisticated computer to which we can ascribe "intentional" states, scientifically respectable explanations of human behavior can be given that make reference to the meaningfulness of "mental" processes and their causal role in behavior. But because these "mental" processes are understood as functional states of a physical system, there is no problem of any implicit commitment to an ontology of unobservables. The "intentionality" of these processes results from the organized, cooperative interactions of various structural components of the physical system, and the power of this empirical base explains the preferability of these explanations to those offered by mentalist or behaviorist psychology. In other words, for psychology it "gives an emprically legitimate (testable) way of talking and theorizing about phenomena regarded as meaningful; hence that psychology does not have to choose between the supposedly disreputable method of introspection, and a crippling confinement to purely behavioral description" (Haugeland 1978).

Thus, as a model for developing viable explanations of human behavior, this functionalist or cognitivist approach is superior to the proposed revision of physicalism mentioned above. It illustrates, too, how epistemological questions can be separated from and answerable independently of how questions regarding the metaphysical status of persons are answered. Although the analogy between per-

sons and computers is rather suggestive of a materialist conception of minds, it is, nonetheless, compatible with the possibility that minds and mental processes form an ontologically separate category. And regardless of whether or how this latter question is answered, it cannot be the impediment to our developing scientifically acceptable explanations of human behavior that it once appeared to be.

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