

Title: On the Application of Carnap's Internal/External Distinction to the Realism/Anti-Realism Controversy

Long Abstract: In *Empiricism, Semantics, and Ontology* (1950), Carnap introduces a distinction between what he calls "internal" and "external" questions. The internal questions for Carnap are relatively straightforward since they arise within a language and are amenable to our ordinary methods of proof. In contrast, external questions are interpreted as practical questions that ask whether we should adopt a certain language based on its expected benefits. While Carnap had originally made this distinction to avoid metaphysical worries that the use of semantics posed to empiricist philosophers (1950), he later extended the application of the distinction to speak about theoretical entities as well (1966/1974). This way, Carnap contributed to the debate between scientific realists and anti-realists by considering it as an external dispute of selecting a preferred language. However, a straightforward application of the distinction to the Realism/Anti-realism controversy may be more problematic than what Carnap may think.

In recent scholarship, Penelope Maddy, made an objection to Carnap's extended use of the distinction using the example of the atomic hypothesis and argued that not only the internal/external distinction was unsuccessful for talking about atoms, but that it should be dismissed altogether (2008). According to her criticism, Carnap's distinction would make the reality of atoms a mere external question of adopting an "atom-language" for practical merits. This would undermine the remarkable significance of Perrin-Einstein experiments which decisively proved the existence of atoms. With the refinement of our ordinary methods of evidence based on Brownian motion, Perrin and Einstein settled the seemingly intractable debate between energeticists and atomists in favour of the latter. For Maddy, our acceptance of the atomic hypothesis gives us good reasons to dismiss Carnap's distinction as being confused and overly simplistic since it makes the reality of atoms a matter of convenience only and undermines the novel achievement by Einstein and Perrin.

According to William Demopoulos, however, we can develop an understanding of the distinction that does not reduce the atomic hypothesis to a mere linguistic proposal (2011). Moreover, the external debate between the realists and anti-realists could still be understood as a dispute about a preference of language. Both the realist and anti-realist would agree that atoms are real as a matter of fact, but differ in their understanding of the "atom-language" which they adopt to speak about atoms. Anti-realists may understand the truth of a theory as warranted assertability, while the realists would go for stronger notions of truth. In this way, the significance of Einstein and Perrin analysis would still be preserved while the difference between realists and anti-realists would be seen in how they understand the truth of theories.

In my talk, I will use Crispin Wright's pluralist account of truth (1992) to propose other semantic ways that realists and anti-realists could differ from each other beyond what Demopoulos has already suggested (2011). While Demopoulos relies on Dummett's semantic framework to develop an improved understanding of Carnap's internal/external distinction, I will be exploring Wright's more general framework to further illuminate Carnap's division of "internal" and "external" questions. Both Wright and Carnap under my interpretation ought to share a common worry: "What is at stake between the realist and anti-realist if both agree the statements of the contested discourse are irreducibly apt for truth and falsity? Won't the [significance of the]

debate be undermined” if it is not understood metaphysically? To avoid the trivialization of the debate between realists and anti-realists, Wright proposes a more general framework that allows for Dummett’s view on the debate to be viewed as one possible direction that could be taken among many feasible paths. To show this, Wright indicates several viable metaphysically neutral concepts of truth, which all have in common a set of, what he calls, “minimal truth” properties. According to Wright, both the realist and anti-realist accept these properties as essential of a theory’s truth. The differences between realists and anti-realists arise as additional properties are also accepted, which may justifiably inspire a variety of realist viewpoints—some stronger than others depending on the surplus properties of truth. I will show that Wright’s various criteria of objectivity not only helps in explaining the historical importance of the disputes between a variety of scientific realists and anti-realists, it also allows for a more nuanced and stable understanding of Carnap’s internal/external distinction.