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## IDENTITY POLITICS IN SCIENCE

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In principle, the goal of science is to collect and assess evidence relevant to the truth value of factual claims to more accurately describe and predict the universe. In practice, science is the process of convincing ourselves and others of a *position* regarding the truth value of factual claims. Scientific positions can consist of narrow factual claims (e.g., the Higgs boson exists), but they often accumulate into classes of positions, called *perspectives* (e.g., string theory and general relativity). Perspectives make it possible to categorize complimentary sets of positions and groups of researchers, rendering the communication of positions more efficient while defining theoretical battlegrounds. Perspectives gain dominance when advocates convince students and lay-people of the truth value of their positions, and there are two general patterns to this process. First, the totality of evidence may favor the positions within one perspective over others, and conscientious consumers of science may allow their beliefs to track this evidence, even as it disconfirms previous beliefs. In this bottom-up pattern, disagreements can arise because not all consumers will have equivalent knowledge of or access to the relevant scientific findings, and individuals will not be equally confident in different methodologies and logical arguments. Second, consumers may come to identify with a scientific perspective (often because it aligns with political, moral, or practical preconceptions) and experience motivation to maintain and endorse that identity. Identification can lead to the top-down development of scientific beliefs, whereby commitment to an identity systematically alters the perception of scientific findings and the pattern of consumption (e.g., confirmation bias, cherry-picking, straw-manning).

Patterns of agreement and disagreement can arise from differences in knowledge and confidence across scientific disciplines, but identities produce additional, reflexive agreements and reflexive disagreements as a consequence of psychological bias. When the experience of agreement or disagreement arises prior to the consideration of confirming or disconfirming evidence, it can be considered reflexive. For example, if we had replaced the term “psychological bias” with “tribal psychology” in the first sentence of this paragraph, it could be taken as support for an evolutionary perspective on human psychology, leading some readers to experience reflexive disagreement with our thesis because we have indicated that we do not share their identity. The same effect could produce reflexive disagreement among evolutionary psychologists if we had instead written “social comparison psychology.” Notice that however it is written, the above sentence will be a factual claim and agreement or disagreement may be gained with a review of the literature and future research. One could argue that passion and partisanship in science is necessary for worthwhile ideas to survive scrutiny. For example, imagine if Darwin and his peers had been less devoted to their theoretical framework. Perhaps the acceptance of evolution by natural selection would have been postponed without some degree of zealotry. Yet, the friction that Darwin battled against was that same zealotry, consensus, and political investment that the general scientific community had placed in the existing paradigm. Consider the men and women who will stumble upon the next paradigm shifts in science. Are they more or less likely to succeed in developing and communicating those ideas if our first reaction is to consider the degree to which their ideas align with our own, the reputation of their institution, and the political implications of their findings? If we want a more nimble and pluralistic scientific enterprise, we might begin with learning to identify and resist reflexive agreements and disagreements.

However, perhaps we shouldn't want a perfectly nimble and pluralistic scientific enterprise. The issue of identity politics in science is distinct from the issue of whether there are topics available for study which, if we pursued them, would produce net harms to the well-being of conscious creatures. In other words, scientific progress is not an inherent good, and it is reasonable to worry that some areas of study are more hazardous than others. Weaponized nuclear fission may be a technology better left unstudied, as it has contributed to enduring geopolitical instability and may hasten human extinction. Yet, gene therapy, genetically modified crops, vaccines, and artificial intelligence have not (yet?) begun to produce the harms predicted by past and present skeptics. One responsibility of modern science is to predict and hedge against future harms to the well-being of conscious creatures. Some of the most polarizing topics in current psychological science are present in the Evolutionary Studies in Imaginative Culture questionnaire. Foremost among these is race differences in cognitive abilities. For lack of expertise, we cannot provide adequate commentary on the validity of the research suggesting that, for example, white Americans have higher average scores on IQ tests than black Americans, and that Asian Americans have higher average scores than white Americans. Debate centers on whether we are methodologically equipped to be adequately judicious in our definitions and measurement of intelligence and race.

Given what we know about human phenotypic diversity, we have no *a priori* reason to doubt that there can be average differences in cognitive abilities between populations defined by race, including average differences in general intelligence. If black Americans have lower average scores than white Americans on IQ tests and these differences are not explained by systematic biases in the tests or sampling, or differences in shared and non-shared environments, we can allow our belief to track the evidence suggesting genetically-informed group differences in IQ that correspond with race. Again, we don't pretend to be qualified to declare the debate settled, and there remain reasonable empirical criticisms, but for the sake of our argument, we will imagine that race differences in average IQ scores do exist and are demonstrable. If such effects are published, it is certain that many scientists and lay-people would experience reflexive disagreement on the grounds that such effects seem to contradict previously held political beliefs about the equality of races. On the other hand, many other scientists and lay-people would experience reflexive agreement on the grounds that such effects seem to confirm their impressions of race differences and/or because publishing such findings could help push the boundaries of academic freedom. This is a precarious situation not only because opinions have become divided and politicized, but because the truth of the matter is consequential.

Other traits are known to differ, on average, between the races without much controversy, but intelligence is perhaps the most highly valued single human trait in the industrialized world. If blacks are, on average, less intelligent than whites, and data on this effect fully emerges into public awareness, we could expect the social, political, and economic standing of blacks to degrade and for negative attitudes towards blacks to become further entrenched. Imagine the potential effects on hiring, renting, and insuring practices, the self-perceptions of black men and women, the judicial system and policing, school environments and dropout rates. We should not underestimate these possible harms. On the other hand, this research may lead to identifying the genetic components of intelligence, to techniques for alleviating disparities in intelligence, and to the more sensitive and appropriate research methodologies (e.g., culture-fair tests of intelligence,

adoption/twin studies). Without a larger discussion, there is also no opportunity to debunk the racist narrative that is erroneously linked with differences, and reflexively denying the findings may only drive racist conversations further underground. In other words, this topic could clarify an important lesson: average differences on any trait do not identify individual differences and neither do they justify moral/political differences in fair treatment.

If it is the responsibility of the scientific community to conduct the research that will tend to promote the well-being of present and future conscious creatures, we are unsure as to whether research on race differences in intelligence will accomplish that aim. This question itself requires further research. Imagine that we discover and publish race differences and find that we have produced greater harms than benefits. Those who reflexively disagreed with the proposition of race differences (those who were committed to the conclusion that the races are equal) would not only have been found incorrect, but they would be in no position to criticize those who conducted the research. In fact, those who are assured that the races are equivalent should be the most interested in conducting the research to debunk racist myths. Those who reflexively agreed with the proposition of race differences will find their predictions confirmed, but will live in a world that is worse-off because of their commitments. If the worst-case scenario is realized, our identity politics will have done nothing to protect us.

To summarize our position, identity politics not only degrade the quality and pace of science, but they also fail to provide an intellectually honest rationale for responsible research. Scientific responsibility does not mean deferring to a liberal interpretation, or to a humanistic interpretation, or to academic freedom. It means formulating a utility function for the impact of research on the well-being of conscious creatures and inviting revisions to that formulation. If scientists working on controversial topics can intercept their reflexive interpretations and have honest conversations about the likely utility of the research, they will at least have grounds for a debate, even if they don't end up agreeing.