aps ASSOCIATION FOR PSYCHOLOGICAL SCIENCE

Perspectives on Psychological Science
1–6

DOI: 10.1177/1745691619855638
www.psychologicalscience.org/PPS
SAGE

Implicit Bias Is Behavior: A Functional-Cognitive Perspective on Implicit Bias

Jan De Houwer
Ghent University

Abstract

Implicit bias is often viewed as a hidden force inside people that makes them perform inappropriate actions. This perspective can induce resistance against the idea that people are implicitly biased and complicates research on implicit bias. I put forward an alternative perspective that views implicit bias as a behavioral phenomenon. More specifically, it is seen as behavior that is automatically influenced by cues indicative of the social group to which others belong. This behavioral perspective is less likely to evoke resistance because implicit bias is seen as something that people do rather than possess and because it clearly separates the behavioral phenomenon from its normative implications. Moreover, performance on experimental tasks such as the Implicit Association Test is seen an instance of implicitly biased behavior rather than a proxy of hidden mental biases. Because these tasks allow for experimental control, they provide ideal tools for studying the automatic impact of social cues on behavior, for predicting other instances of biased behavior, and for educating people about implicitly biased behavior. The behavioral perspective not only changes the way we think about implicit bias but also shifts the aims of research on implicit bias and reveals links with other behavioral approaches such as network modeling.

Keywords

implicit bias, functional psychology, racism

In this brief article, I argue that there is merit in thinking about implicit bias as a behavioral phenomenon. I first discuss the more widespread perspective that views implicit bias as a latent mental construct and highlight two important downsides of this perspective. Next, I explain the alternative, behavioral perspective and discuss the potential advantages, limitations, and implications of that perspective.

Implicit Bias as a Latent Mental Construct

Implicit bias is often thought of as an unobservable structure in the mind of an individual (e.g., an association in memory) that drives behavior in an unconscious manner (e.g., Amodio & Mendoza, 2010). Because it cannot be observed directly, measures are needed that index the strength and nature of implicit bias. Several experimental tasks have been adopted for this purpose, such as the Implicit Association Test (IAT; e.g., Greenwald, McGhee, & Schwartz, 1998), evaluative priming tasks (e.g., Fazio, Jackson, Dunton, & Williams, 1995), and the affect-misattribution procedure (Payne, Cheng, Govorun, & Stewart, 2005).[1] These measures are then used to predict the behaviors that are assumed to be driven by an implicit bias (see Fig. 1). From this perspective, implicit bias thus qualifies as a latent mental construct.

This popular perspective on implicit bias has a number of downsides. First, it fosters a quite disturbing view on implicit bias: It is an uncontrollable, hidden force inside people that makes them perform inappropriate actions. Being told that we are implicitly biased can therefore threaten core beliefs about who we think we are and aspire to be (e.g., Sukhera, Milne, Teunissen, Lingard, & Watling, 2018). Although this disturbing view might not be an inevitable consequence of defining implicit bias as a hidden mental structure, it is likely to be an important source of the defensive reactions that many people display when being told that they are implicitly biased (e.g., Howell, Gaither, & Ratliff, 2015).

Corresponding Author:
Jan De Houwer, Ghent University, Henri Dunantlaan 2, B-9000 Ghent, Belgium
E-mail: jan.dehouwer@ugent.be

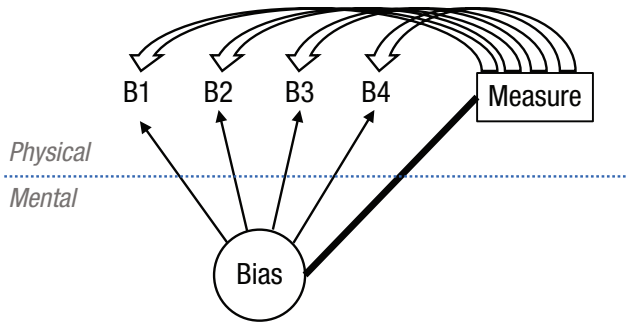

Fig. 1. Schematic representation of implicit bias as a latent mental construct that causally influences physical behavior (B1 . . . B4) and can be indexed using a measure that predicts behavior.

Thus, the latent-mental-construct perspective has undoubtedly contributed to the controversy that surrounds the notion of implicit bias. It is also likely to hamper attempts to reduce implicit bias in society, not only because of the controversy it instills but also because the metaphor of a hidden mental structure encourages the idea that implicit bias is a stable entity that is difficult to change and control (e.g., Sukhera et al., 2018).

Second, a latent-mental-construct perspective complicates the measurement of implicit bias and thus research on this topic. As indicated by the thick line in Figure 1, measures of implicit bias are assumed to directly tap into the unobservable structure and hence to provide a proxy of this structure. The fact that these measures are used to predict biased behaviors is based on the assumption that variations in the measurement outcome reflects variations in the underlying implicit bias. It is, however, notoriously difficult to validate this assumption (e.g., De Houwer, Teige-Mocigemba, Spruyt, & Moors, 2009). In fact, because implicit measures are likely to reflect multiple mental constructs and processes, it is highly unlikely that differences in measurement outcomes reflect differences in one specific mental construct. This is not a problem if the measure does exactly what it is expected to do (e.g., it adequately predicts biased behavior). But in those (frequent) cases in which the measure does not conform with expectations, it is very difficult to determine whether this is due to a problem with the measure (e.g., it does not capture implicit bias adequately) or with the theory about the construct (i.e., ideas about when and how implicit bias influences behavior; for a discussion of this issue in the context of attitudes research; see De Houwer, Gawronski, & Barnes-Holmes, 2013).

Implicit Bias as a Behavioral Phenomenon

These important downsides can be circumvented by adopting an alternative, behavioral perspective on implicit bias. The cornerstone of this perspective is the idea that implicit bias is a behavioral phenomenon rather than a mental structure. In other words, implicit bias is something that people do rather than something that people possess. More specifically, implicit bias can be defined as implicit group-based behavior, which is behavior that is influenced in an implicit manner by cues that function as an indicator of the social group to which others belong. For instance, saying that someone is racially biased means that part of what that person does (e.g., whether the person smiles at someone, shakes hands with someone, hires someone for a job) is influenced by cues indicative of the racial group of others (e.g., skin color). The influence of these social cues can be labeled as implicit when it occurs quickly, effortlessly, unintentionally, unconsciously, or in a way that is difficult to control (see Moors, 2016, and De Houwer et al., 2009, for more details).[2] For instance, someone shows an implicit racial bias when he or she quickly and unintentionally responds fearfully to the presence of another person because of the skin color of that person. Implicit group-based behavior can be referred to as biased in that behavior is influenced (by social cues) in a systematic way. Note that the behavioral perspective is thus amoral in the sense that it does not require a judgment about whether the impact of social cues on behavior is inappropriate according to some norm. It allows for moral debates but separates them from the behavioral phenomenon in itself. It also does not assign blame for biased behavior but simply implies that the behavior is a function of social cues in the environment. In the remainder of this section, I discuss potential advantages, downsides, and implications of a behavioral perspective on implicit bias.

Accepting implicit bias

Compared with implicit bias as seen from a latent-mental-construct perspective, people might be more willing to entertain the possibility that their behavior is implicitly biased in a behavioral sense. The behavioral perspective implies only that social cues can have automatic effects on behavior. It does not require people to accept a specific theory for why their behavior might sometimes be biased (e.g., the idea that behavior can be controlled by hidden entities within a person) or to accept the idea that biased behavior necessarily violates some norm. Moreover, implicit bias as behavior is probably seen as more malleable than implicit bias as a hidden mental structure and might therefore heighten the belief that the problem of implicit bias can be remedied. Of course, people will invest effort into trying to prevent or counteract implicit bias only if they perceive it to be potentially inappropriate in some respect. As noted earlier, a behavioral perspective on

implicit bias allows for debates on these normative issues but separates them from debates about whether behavior can be influenced automatically by social cues. Thus, adopting a behavioral perspective is likely to help dampen some of the controversy that surrounds the notion of implicit bias (e.g., Jost et al., 2009).

As noted by a reviewer, many people also might resist the idea that they act in biased ways. They might even resist the idea that biased behavior can be changed. Although this is certainly possible, a behavioral perspective is likely to engender less resistance than a latent-mental-construct perspective. Both perspectives entail the possibility of implicitly biased behavior, but only the latter requires assumptions about hidden mental causes of biased behavior. Both perspectives allow for the idea that when one is vigilant, implicitly biased behavior can be prevented or counteracted, but the latent-mental-construct perspective puts the spotlight on stable mental structures rather than on malleable behavior. Moreover, the behavioral perspective allows one to clearly separate implicit bias as a behavioral phenomenon from the often heated debates about the appropriateness of biased behavior. Finally, as will be argued in the next section, experimental tasks can be used to objectively reveal (changes in) biased behavior and thus to weaken resistance against the idea of (changes in) biased behavior. Ultimately, empirical research will have to determine whether a behavioral perspective increases acceptance of the idea of implicit bias. However, by putting forward the behavioral perspective as a promising alternative for the latent-mental-construct perspective, the current article already sets the stage for this research.

Examining implicit bias

The idea that implicit bias is a behavioral phenomenon also removes the need for measures that tap into a latent mental construct. Instead, so-called measures of implicit bias can simply be viewed as instances of implicit bias, that is, as specific examples of behavior that is influenced automatically by cues indicative of the social group of others (e.g., see Ciarrochi et al., 2016, and De Houwer et al., 2013 for related ideas). For instance, saying that performance on a race-related version of the IAT is an instance of implicit racial bias implies that IAT performance (more specifically, differences in the speed of responding in the different blocks of the IAT) is influenced automatically by the racial cues of the stimuli on the screen. From this perspective, IAT performance, as well as performance on several other experimental tasks (e.g., the evaluative priming task; Fazio et al., 1995), is simply implicit group-based behavior that is observed under well-controlled conditions.

Although a behavioral perspective on implicit bias strips performance on experimental tasks from its privileged position as a proxy of hidden mental structures, it continues to assign a prominent role to these tasks. Most importantly, the tasks provide ideal tools to examine whether and when behavior is implicitly biased. From a behavioral perspective, the presence of implicit bias can be established by showing an impact of social cues on behavior under conditions of automaticity. Because experimental tasks allow researchers to (a) vary the presence of social cues while controlling for possible confounds, (b) establish conditions of automaticity, and (c) carefully register changes in behavior, they are ideally suited to study implicit bias. Although it can be challenging to demonstrate the automatic impact of social cues on behavior even in experimental tasks, a behavioral perspective frees research on implicit bias from the need for proxies of hidden mental constructs, thereby side-stepping debates about whether and when variations in task performance reflect variations in hidden mental structures. The focus of research is no longer on the hidden mental structures but on the behavior itself.[3]

On the basis of the plausible assumption that different instances of a particular type of implicit bias (e.g., racial bias, gender bias) are related to each other (e.g., persons likely to emit certain types of racial behavior are also more likely to emit other types of racial behavior), one can also continue to explore the potential of experimental tasks as tools to predict real-life biased behavior. From a behavioral perspective, the predictive utility of performance in these tasks will depend on the extent to which performance is influenced by the same cues under the same conditions as real-life biased behavior (see Ciarrochi et al., 2016). One could say that performance in experimental tasks such as the IAT is related to real-life instances of implicit bias as driving in a driving simulator is related to driving in real life. Because the two elements of each pair are instances of the same phenomenon that occur under different circumstances, it is likely that the relation between both elements will depend on how similar those circumstances are. Just as the relation between driving in a simulator and real-life driving can be examined without having to assume that driving in a simulator taps into the latent mental construct that determines real-life driving, so too can the relation between performance in experimental tasks and real-life biased behavior be examined without the need to assume that the former is a measure of a hidden mental structure that determines real-life biased behavior (see Fig. 1).

Finally, a behavioral perspective on implicit bias also facilitates the use of experimental tasks for educational purposes. For instance, rather than having to interpret a race IAT score as an index of a hidden mental structure that biases behavior, it can simply be described as an example of how behavior (i.e., response times) can be influenced by race-related cues even when people do not have the intention to be influenced by those cues. As noted above, such a behavioral framing of performance in experimental tasks is likely to engender less defensive reactions than a framing in terms of hidden mental structures. Because experimental tasks can be used to provide objective information about actual differences in performance, they are well suited for demonstrating implicit group-based behavior.

Moreover, because the aim is to illustrate a type of behavior rather than to measure a latent mental construct, education on implicit bias no longer needs to refer to assumptions about hidden mental structures and how those structures relate to task performance and real-life biased behavior. The claim that an individual or group of individuals is displaying implicit group-based behavior can be based solely on performance during the experimental task. In principle, any automatic effect of any social cue on any type of behavior would suffice to demonstrate implicit bias. Because of the amoral nature of the behavioral perspective, it is not necessary also to argue that performance on the experimental task is inappropriate in some normative sense. Of course, the extent to which a demonstration of implicit bias will have an impact is likely to depend on the extent to which additional evidence shows that within the global population or a section of the population, biased performance in the experimental task is related to important and normatively inappropriate real-life instances of biased behavior. Accumulating this additional evidence will require effort, but this work needs to be done anyway, regardless of the perspective on implicit bias that one takes. In sum, a behavioral perspective facilitates education on implicit bias by shifting the focus toward actual behavior.

What about feelings and thoughts?

Some readers might worry that a behavioral perspective misses out on the fact that feelings and thoughts are crucial in implicit bias. When considering conscious feelings and thoughts, this problem can easily be circumvented by adopting a broad definition of behavior. Behavior is not necessarily limited to the movement of muscles and glands. In addition, conscious feelings and thoughts can be observed (be it only by the person who has them) and thus treated as instances of (covert) behavior (Skinner, 1953). Hence, it is possible to establish and study whether and when conscious feelings and thoughts are influenced automatically by social cues such as skin color. From a behavioral perspective, such feelings and thoughts would be seen as instances of implicitly biased behavior, which, like other instances of biased behavior, are things that people do rather than possess. Studying implicitly biased feelings and thoughts does not require a definition of implicit bias as a latent mental construct.

What about unconscious feelings and thoughts? Because it is not possible to observe or intervene in these feelings and thoughts directly, they are typically considered to fall outside the scope of behavioral research. However, adopting a behavioral perspective on implicit bias does not deny the possibility of adopting a cognitive perspective. Whereas behavioral research on implicit bias can be seen as directed at documenting the environmental conditions under which implicit group-based behavior occurs (i.e., the moderators of implicit bias), cognitive research on implicit bias can be seen as focused on documenting the mental processes that mediate implicit group-based behavior (i.e., the mental mediators of implicit bias). Because the two approaches have different aims, they do not compete but complement each other. I thus subscribe to a functional-cognitive framework for research on implicit bias that allows one to reconcile behavioral and cognitive research (De Houwer, 2011; Hughes, De Houwer, & Perugini, 2016). In fact, it can be argued that cognitive research on implicit bias will benefit from clearly separating the phenomenon to be explained (i.e., implicit group-based behavior) from mental theories of that phenomenon (e.g., the idea that associations in memory are responsible for implicit group-based behavior; for more details, see De Houwer et al., 2013; De Houwer, Hughes, & Barnes-Holmes, 2017; Hughes et al., 2016).

Rather than denying the possibility of a cognitive perspective on implicit bias, a behavioral perspective on implicit bias firmly shifts the focus from the mental level to the behavioral level. I believe that such a shift in focus is appropriate not only because of the practical implications described elsewhere in this article but also because it brings the concept of implicit bias in line with the aims of many researchers who study implicit bias. From a behavioral perspective, the problem of implicit bias in society is ultimately a behavioral problem. It is all about (changing) what people do. It is not primarily about the mental causes of biased behavior. Having theories about the mental causes of biased behavior can be useful, not in the least because theories can generate ideas about how to change the biased behavior, but ultimately, the phenomenon itself is a behavioral one. Just consider the fact that most (applied) researchers would be happy with finding ways to

reduce biased behavior even if they do not have a good cognitive theory of implicit bias (for a discussion of the idea that applied topics in psychology are always primarily about behavior in a broad sense, see De Houwer et al., 2017).

Implications

Although it is difficult to foresee how exactly the field of implicit bias research will change as the result of adopting a behavioral perspective, the impact is bound to be substantial. First, it will change the way we communicate about implicit bias. As noted above, there are good reasons to assume that this shift will weaken the controversy surrounding the concept of implicit bias and thus increase willingness to tackle the problem of implicit bias, which, at its core, is a behavioral problem. Second, the behavioral perspective will facilitate research on implicit bias by eliminating the need for measures that can function as proxies of hidden mental biases. Experimental tasks will still be used to examine implicit bias, predict real-life biased behaviors, and educate people about implicit bias, but the focus of this research will be shifted to actual behavior, more specifically, the conditions under which behavior is influenced by cues indicative of social groups as well as the conditions under which different biased behaviors are related.

Adopting a behavioral perspective on implicit bias will also bring research on implicit bias into contact with other approaches in science that focus on behavior rather than latent mental constructs. One particularly interesting approach is offered by networks models. In their most basic form, network models are graphic ways of describing covariations or causal relations between different environmental events, including different behaviors (Borsboom & Cramer, 2013; Robins, 2013). For instance, a network model of depression reveals how different symptoms of depression relate to each other and change over time into stable states (Cramer et al., 2016). Such a network perspective provides ways to talk about and examine depression that do not require one to assume a common latent mental cause of all symptoms. Just as network models have revolutionized research on psychopathology (e.g., Borsboom & Cramer, 2013; Borsboom, Cramer, & Kalis, 2019), they have the potential to change the face of research on implicit bias. Most importantly, network models of implicit bias do not require the assumption that all instances of biased behavior depend on a common latent mental cause. Instead, they can reveal how instances of (racial) behavior causally influence each other (e.g., whether and when frequency of contact with outgroups leads to racial bias in hiring).

Conclusion

As Machado and Silva (2007) elegantly argued, science in general and psychology in particular have much to gain from conceptual analyses. In this article, I put forward a new perspective on a psychological concept that had a huge impact on society during the past decade: implicit bias. More specifically, I put forward the idea that implicit bias can be thought of as implicit group-based behavior. Adopting this behavioral perspective implies not only a shift in thinking about implicit bias but also has important implications for the aims and practices of research on implicit bias.

Action Editor

Laura King served as action editor for this article.

ORCID iD

Jan De Houwer https://orcid.org/0000-0003-0488-5224

Acknowledgments

I thank Sean Hughes and Pieter Van Dessel for their helpful comments on earlier drafts of the manuscript. An outline of this article was presented at the NSF Implicit Bias Conference, Alexandria, Virginia, on September 28, 2017.

Declaration of Conflicting Interests

The author(s) declared that there were no conflicts of interest with respect to the authorship or the publication of this article.

Funding

The preparation of this article was made possible by Methusalem Grant BOF16/MET_V/002 of Ghent University

Notes

1. I use the term *experimental task* in a broad sense that applies to any task that allows researchers to exert control over the situation that people are exposed to and to register behavior in a standardized manner.
2. I thus equate the term *implicit* with the term *automatic* and define *automatic* as an umbrella term that refers to different automaticity features that do not necessarily overlap.
3. Critics of the behavioral view could emphasize the challenges that it raises. Note, however, that a latent-mental-construct perspective raises the same challenges because performance on experimental tasks can be a proxy of hidden mental biases only if it is related to social cues in the environment. Hence, the use of proxies not only requires demonstrating the automatic impact of social cues on behavior (e.g., that IAT performance is influenced by skin color rather than familiarity of the faces presented on a computer screen) but also raises the additional challenge of showing that this effect is related in a particular way to hidden mental biases.

References

Amodio, D. M., & Mendoza, S. A. (2010). Implicit intergroup bias: Cognitive, affective, and motivational underpinnings. In B. Gawronski & B. K. Payne (Eds.), *Handbook of implicit social cognition* (pp. 353–374). New York, NY: Guilford.

Borsboom, D., Cramer, A., & Kalis, A. (2019). Brain disorders? Not really: Why network structures block reductionism in psychopathology research. *Behavioral & Brain Sciences*, *42*, Article e2. doi:10.1017/S0140525X17002266

Borsboom, D., & Cramer, A. O. J. (2013). Networks: An integrative approach to the structure of psychopathology. *Annual Review of Clinical Psychology*, *9*, 91–121.

Ciarrochi, J., Brockman, R., Duguid, J., Parker, P., Sahdra, B., & Kashdan, T. (2016). Measures that make a difference: Optimizing psychological measurement to promote well-being and reduce suffering. In R. Zettle, S. Hayes, T. Biglan, & D. Barnes-Holmes (Eds.), *Handbook of contextual behavioral science* (pp. 320–347). Malden, MA: John Wiley.

Cramer, A. O. J., van Borkulo, C. D., Giltay, E. J., van der Maas, H. L. J., Kendler, K. S., Scheffer, M., & Borsboom, D. (2016). Major depression as a complex dynamic system. *PLOS ONE*, *11*(12), Article e0167490. doi:10.1371/journal.pone.0167490

De Houwer, J. (2011). Why the cognitive approach in psychology would profit from a functional approach and vice versa. *Perspectives on Psychological Science*, *6*, 202–209.

De Houwer, J., Gawronski, B., & Barnes-Holmes, D. (2013). A functional-cognitive framework for attitude research. *European Review of Social Psychology*, *24*, 252–287.

De Houwer, J., Hughes, S., & Barnes-Holmes, D. (2017). Psychological engineering: A functional-cognitive perspective on applied psychology. *Journal of Applied Research in Memory and Cognition*, *6*, 1–13.

De Houwer, J., Teige-Mocigemba, S., Spruyt, A., & Moors, A. (2009). Implicit measures: A normative analysis and review. *Psychological Bulletin*, *135*, 347–368.

Fazio, R. H., Jackson, J. R., Dunton, B. C., & Williams, C. J. (1995). Variability in automatic activation as an unobtrusive measure of racial attitudes: A bona fide pipeline? *Journal of Personality and Social Psychology*, *69*, 1013–1027.

Greenwald, A. G., McGhee, D. E., & Schwartz, J. L. K. (1998). Measuring individual differences in implicit cognition: The implicit association test. *Journal of Personality and Social Psychology*, *74*, 1464–1480.

Howell, J. L., Gaither, S. E., & Ratliff, K. A. (2015). Caught in the middle: Defensive responses to IAT feedback among Whites, Blacks, and Biracial Black/Whites. *Social Psychological & Personality Science*, *6*, 373–381.

Hughes, S., De Houwer, J., & Perugini, M. (2016). The functional-cognitive framework for psychological research: Controversies and resolutions. *International Journal of Psychology*, *51*, 4–14.

Jost, J. T., Rudman, L. A., Blair, I. V., Carney, D. R., Dasgupta, N., Glaser, J., & Hardin, C. D. (2009). The existence of implicit bias is beyond reasonable doubt: A refutation of ideological and methodological objections and executive summary of ten studies that no manager should ignore. *Research in Organizational Behavior*, *29*, 39–69. doi:10.1016/j.riob.2009.10.001

Machado, A., & Silva, F. J. (2007). Toward a richer view of the scientific method: The role of conceptual analysis. *American Psychologist*, *62*, 671–681. doi:10.1037/0003-066X.62.7.671

Moors, A. (2016). Automaticity: Componential, causal, and mechanistic explanations. *Annual Review of Psychology*, *67*, 263–287.

Payne, B. K., Cheng, C. M., Govorun, O., & Stewart, B. D. (2005). An inkblot for attitudes: Affect misattribution as implicit measurement. *Journal of Personality and Social Psychology*, *89*, 277–293.

Robins, G. (2013). A tutorial on methods for the modeling and analysis of social network data. *Journal of Mathematical Psychology*, *57*, 261–274.

Skinner, B. F. (1953). *Science and human behavior*. New York, NY: MacMillan.

Sukhera, J., Milne, A., Teunissen, P. W., Lingard, L., & Watling, C. (2018). The actual versus idealized self: Exploring responses to feedback about implicit bias in health professionals. *Academic Medicine*, *93*, 623–629.