How could we reduce political polarization without legislation?

Diagnose the problem:

As a society, we don't understand *how to understand* people. This is not our fault - although we know that our behavior is completely dependent on our neurobiology, our natural bias is to impute non-biological explanations for behavior (for example, saying someone is a "bad person" instead of thinking about how the development of their brain has produced a certain behavior) (Forstmann & Burgmer, 2015). Related research tells us that our (mistaken, neuroscientifically speaking) instinctive belief in free will and personal agency is an evolutionarily-evoked trait that exists to allow us to punish and ascribe blame without the associated guilt (Clark et al, 2014). Therefore, I believe that it is a *lack of knowledge* of the "other side" - the developmental origins of their behavior, moral systems, and beliefs - that is at the root of (or at least a very important factor in) political polarization. This lack of knowledge allows us to blindly interpret the motivation of those holding opposing viewpoints as too ill-intentioned or wrongly-informed to try and understand. However, as John Stuart Mill wrote in 1895: "He who knows only his own side of the case knows little of that" (Mill, 1895, p. 35).

NYU social psychologist and Professor of Ethical Leadership Jonathan Haidt explores the roots of political polarization in his book *The Righteous Mind: Why Good People are Divided By Politics and Religion*. The book explores the evolutionary origins of our "tribal" tendencies to form political identities (based on his Moral Foundations Theory). The essence of his message is that a person's moral belief system (and by extension, political leaning) can be traced back to a variety of different environmental factors - genes, parental and social influences, etc. A fan of Haidt neatly sums up his message in this cartoon - "How to Make a Conservative and How to Make a Liberal". If we don't at least try to understand *why* the views on the "other side" might differ, it is likely that we will resort to a stereotypical (and perhaps derogatory) conclusion about why liberals act the way they do or why conservatives act the way they do.

Our tendency to resort to simplistic and stereotypical explanations for opposite-party belief systems and behavior also applies to our society's conception of moral responsibility. Our legal system is set up such that in order to hold someone accountable for their actions, we have to confirm that they "could have done otherwise". In other words, there were no external influences coercing the person to commit a crime (e.g. they did not have a gun to their head) or the person did not merely act out of uncontrollable urges (e.g. insanity). We have a tendency to do the same thing when we think about other people: our baseline assumption is that people do have agency, and as a result, we are quick to assign personal blame for failure, poverty, and other misfortunes. However, there is a wealth of published research that provides us with higher level explanations of human behavior, that doesn't resort to arguments like "x is poor because he lacked *drive*".[1] Interestingly, conservatives are more likely to adopt this kind of argument than liberals - conservative ideology is positively associated with free will belief and blame tendencies (think "pulling yourself up by the bootstraps") (Carey & Paulhus, 2013).

[1] An example of one line of thinking contributing to our understanding of how the environment contributes to behavior: the classic diathesis-stress framework, which views some individuals as particularly vulnerable to adversity, informs virtually all psychiatric research on behavior-gene-environment (G x E) interactions (Belsky et al, 2009).

If we were able to encourage people to be less punitive, blame-ascribing, and agency-attributing, we could potentially become a more thoughtful and therefore tolerant society. If people understood each other (*truly* understood each other, in the *neurobiological* sense), productive cross-party conversation, as well as disagreement, would be more easily facilitated.

Offer potential solutions:

In my first paragraph, I argued that the root of political polarization is strongly connected with a profound *lack of knowledge* of the origins of opposite-party mental models. Fortunately, recent research has assessed the plausibility of shifts in social attitudes by means of education - specifically, ***neuroscience* education**. Shariff et al. (2014) employed a naturalistic method by which people learn about mechanistic causes underlying human action: university neuroscience classes. Through a series of studies, they found that students enrolled in an introductory cognitive neuroscience course were less likely to support retributive punishment. Interestingly, retributivism was strongly negatively correlated with students' self-reported knowledge of the brain from the first to the last class. In other words, the decrease in punitiveness directly corresponded to what students believed they had learned in the neuroscience class. Therefore, it seems that shifting from a belief in free will toward a more mechanistic view of human behavior reduces retributivism. Importantly, these results suggest that shifting people's philosophical worldview about free will - even by simply learning about the brain - can affect their attitudes about moral responsibility, with potentially broad social consequences.

Therefore, my main proposed solution is more widespread neuroscience education. Other related, more **tangible solutions** that stem directly from this idea of neuroscience education could look like:

- ➔ 1. Development of a **standardized neuroscience curriculum** for use in college and/or high school classrooms
- ➔ 2. A ***Freakonomics* podcast episode** highlighting any of the following: novel neuroscience or genetics x environment (G x E) research, Motivated Free Will Belief, Jonathan Haidt's Moral Foundations Theory (encouraging listeners to step outside of their "Moral Matrix" to understand the true origins of moral belief systems)
- ➔ 3. Creation & dissemination of more **comics & infographics** (like "How to Make a Conservative and How to Make a Liberal") that simplify traditionally "academic" concepts
- ➔ 4. Encourage popular/prominent figures to **utilize social media** to get the conversation going about the importance of neuroscience and its relevance to our lives

How I would approach the problem as a XXX team member:

As a XXX team member, my chief concern would be to ensure that the development of any solution to a problem (for example, neuroscience education material) is evidence-based and data-driven. Facilitating research that elucidates our understanding of *how* people view a particular problem, in addition to *why* they view it that way, has the potential to equip us with better, more targeted ideas for intervention.

For example, are there certain kinds of education materials (in addition to a standardized neuroscience curriculum) that would be more practical to disseminate over others? Suppose our XXX team had made a decision to first target a selection of conservative online platforms for intervention & information circulation (based on the Carey & Paulhus (2013)'s finding that conservative ideology is positively associated with free will belief and blame tendencies). Is there a *kind* of information that our target group might be more receptive to and/or respond more positively to? A research-based approach to this question could leave us with this (and other potentially useful) information to consider when creating our education materials:

Cacioppo et al. (1986) found that individuals low in *need for cognition* (a "tendency to engage in effortful thought" that is correlated with political conservatism and predicts support for punitive responses to crime) are persuaded more by peripheral cues (e.g. source expertise) than by persuasive arguments. Therefore, offering "compelling arguments" might be an ineffective approach for a conservative target audience. Relying on strategies that assume little cognitive effort on the part of the message recipients (e.g., ensuring that the source of the persuasive appeal is well-liked and an expert), however, may be a more effective way to convince our target audience Therefore, solution (4) from the above list of solutions might be the most effective implementation as a first step.

After evidence-based generation of ideas for intervention, as well as determination of the scale on which we would execute the project, it would be important to employ some metric to determine the overall impact that our project has had over the designated timeframe. For example, to assess the utility of a standardized neuroscience curriculum, we could implement a much more large-scale version of Shariff et al. (2014)'s naturalistic research paradigm. The project would entail assessing traits like punitiveness, blameworthiness, and free will belief both before and after exposure to a year-long standardized neuroscience curriculum. As a team at XXX, we could then analyze & visualize the data, write a report of our findings, and share the report with the team for feedback. Finally, we would use our findings to refine our approach and start the brainstorming process again.

Although I have described a research protocol that relies largely on data from psychological research, I also want to stress that there are other (potentially better, more efficient) methods to accumulate the empirical evidence required for a successful and impactful intervention project. The use of *big data*, for example, would be extremely advantageous - both because of its cost-efficiency (no research funding required) and its potential to yield more generalizable, exploratory, and unique insights. For example, to provide support for the finding that conservatives tend to have stronger free will beliefs than liberals, I might write a web scraper to extract a large amount of liberal and conservative language data, and hypothesize that conservatives would use a larger amount of agency-related language in their speech than liberals on an online platform. If executed properly, this kind of project would generate an extremely valuable insight that could be used to inform a potential solution. Therefore as a XXX team member, I would also make it a priority to incorporate creative, big data approaches into my work as an analyst.

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