Minding the Empathy Gap: How insights into brains and behaviors are placating polarization

by

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B.A. Biological Sciences Cornell University, 2014

SUBMITTED TO THE PROGRAM IN COMPARATIVE MEDI STUDIES/WRITING IN PARTIAL FULLFILMENT OF THE REQUIREMENTS FOR THE DEGREE OF

MASTER OF SCIENCE IN SCIENCE WRITING

SEPTEMBER 2019

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Submitted to the Program in Comparative Media Studies/Writing on May 17, 2019 in partial fulfillment of the requirements for the degree of Master of Science in Science Writing

ABSTRACT

The One America Movement is a nonprofit, bridge-building organization founded after the 2016 presidential election. The organization is committed to combating toxic polarization all over the country. On January 27, 2019, One America organized a meeting in South Jordan, Utah in which Latter-day Saints and Jews came together to foster empathy for the other faith. This thesis reports on the on the interfaith event and explores the science behind it and other conflict resolution strategies. Touching on neuroscience and social psychology, this thesis addresses how we come to define empathy, why and when we fail to express it, and how we can hope to recoup it.

Thesis Supervisor: Thomas Levenson

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Acknowledgments

This project would not have been possible without the generosity of those who gave their time and support.

A special thank you to my sources for lending their stories and expertise to this thesis.

Thank you to my thesis advisor, Tom Levenson, for helping me climb this mountain one chunk at a time and turn a very rough first draft into its polished final form.

To my wonderful classmates, Brittany, Devi, Emily M., Emily P., Eva, Gina, and Madeleine –you are all amazing and I'm so grateful I got the chance to work with and learn from each of you this year.

Thank you to my family and friends for not getting too angry about the unreturned phone calls and for the unconditional support through this crazy ride.

On Saturday, October 27, 2018 the Tree of Life synagogue in Pittsburgh, PA was attacked. A man carrying multiple firearms stormed into the heart of the congregation during morning Shabbat services and opened fire. He killed eleven people and wounded six others. It was the deadliest attack on the Jewish community in the history of the United States.¹

Before the attack, the accused gunman posted anti-Semitic statements on social media and witnesses of the shooting recall him shouting his desire to "kill Jews." The synagogue was in the midst of a "peaceful service" when congregants were bombarded and "brutally murdered by a gunman targeting them simply because of their faith," Robert Jones, F.B.I special agent in Pittsburgh told the *New York Times*.³

On the other side of the country in Salt Lake City, Utah, Nate Bagley responded to the tragedy in *The Salt Lake Tribune*. "The news made me want to vomit," he wrote.⁴

Bagley had been working to foster religious understanding in his own community. As the ward mission leader of his Latter-day Saints (LDS) congregation, Bagley heads the church's missionary work. But for Bagley, understanding people of other faiths is as important as proselytizing to them.⁵

"Rather than trying to go out and preach to people, I thought it would be a great opportunity to give our community, who often lives in a bubble, to spend time with people from other communities and understand what it's like to live as a minority in Utah," he says. Currently, LDS members account for nearly 62 percent⁶ of Utah's 3.1 million residents⁷, while Jews comprise less than 0.2 percent.⁸

¹ "Pittsburgh synagogue shooting: What we know, questions that remain." USA Today. 29 Oct. 2018. Web.

² "Pennsylvania Man Charged with Federal Hate Crimes for Tree of Life Synagogue Shooting." *The United States Department of Justice*. 31 Oct. 2018. Web.

³ "11 Killed in Synagogue Massacre; Suspect Charged with 29 Counts." *The New York Times*. 27 Oct. 2018. Web.

⁴ "How to prevent another tragedy like Pittsburgh." *The Salt Lake Tribune*. 31 Oct. 2018. Web.

⁵ Nate Bagley, ward mission leader of the Church Jesus Christ of Latter-day Saints in South Jordan, UT. Address to the attendees of the One America Movement event, 26 Jan. 2018.

⁶ "Fewer Mormons live in Utah's biggest county, new figures show." *The Spectrum*. 15 Dec. 2018.

⁷ https://www.census.gov/quickfacts/ut

⁸ Jewish Population in the United States by State. Jewishvirtuallibrary.org. Web. Oct. 2018

Nearly three months after the massacre at the Tree of Life, Bagley stands in front of a mixed assembly of Jews and his fellow LDS members. They have gathered in the chapel of the Church of Jesus Christ of Latter-day Saints just outside the city to hear Rabbi David Levinsky talk.

Rabbi Levinsky comes to the church from the Temple Har Shalom, one of only three Jewish houses of worship in the Salt Lake region—all more than 30 miles away from the LDS church. The temple and the traditions of those who worship there are largely unfamiliar to the LDS members in the room. Tonight, Rabbi Levinsky will try to change that.

At the altar, framed by concentric arches of purple and periwinkle, Levinsky describes the history and culture of Judaism. As he speaks his cadence is slow and casual—more reminiscent of *The Big Lebowski*'s The Dude than *Yentl*'s Rebbe Mendel. His light demeanor somehow gives more weight to what he says next. "Anti-Semitism is a reality. I guarantee you every single Jew in this room experienced verbal anti-Semitism. I bet most of the guys here tonight got in a fight over it when they were kids."

Among the those listening from the pews sits Andrew Hanauer, the man who introduced Levinsky to Bagley and organized the evening's program. Hanauer is the director of the One America Movement, a nonprofit organization committed to connecting people across racial, religious, political and geographic divides. ¹⁰ "Even when people are living side by side, they're not actually interacting with one another," says Hanaeur. ¹¹

For Hanauer, cultivating human connections hits close to home. He grew up in a secular Jewish home but converted to Christianity when he was in college. His progressive upbringing contrasts from his wife's, who was raised conservative. "I have everyone in my family," he says. "So, whoever's being attacked, it's someone I love." Hanauer says the interfaith workshop is not about converting people. "This is about having the humility to recognize that probably none of us are 100% right about everything. That we can have more constructive, productive conversations and action if we're actually working together," he says.

Across the country, One America is working to bring people together from many disparate backgrounds—not just religious ones. The organization opened its doors to combat the toxic polarization that ensued after the 2016 presidential election. They, along with other social activists and concerned scientists around the world, recognize intensifying conflicts all over the globe as crises that involve the clear denial of the humanity of others. As tensions rise in places like the U.S.-Mexico border over immigration reform or in Israel over sacred lands, renewed

⁹ David Lenvinsky, Saidye Rosner Bronfman Rabbinic Chair at the Temple Har Shalom in Park City, UT. Address to the attendees of the One America Movement event, 26 Jan. 2018.

¹⁰ "One America Movement." Repair the World. Accessed May 16, 2019. https://werepair.org/oneamerica/.

¹¹ Andrew Hanauer, director of the One America Movement. In-person interview, 26 Jan 2019.

attention has come to the question of empathy—what it means at a fundamental human level and how to evoke it reduce the severity and frequency of conflict.

One America meetings turn on a familiar concept of empathy; one that is often summarized with the age-old adage of putting yourself in someone else's shoes. But the question of what empathy truly is, how it leads us to respond with care to another's turmoil has divided philosophers and scientists alike. Among them was Adam Smith, who in *The Theory of Moral Sentiments* (1759), described how "persons of delicate fibres" who notice a beggar's sores and ulcers "are apt to feel an itching or uneasy sensation in the correspondent part of their own bodies." Another eighteenth century philosopher, David Hume, argued that the ability to sense another person's feelings was the basis of all social life and personal happiness. 13

Today, people employ the term *empathy* interchangeably to describe distinct faculties of the mind. Some use it loosely to describe our conscious ability to imagine what another person is thinking, while others define it as a visceral reaction from witnessing someone else suffer.

For example, pretend you meet a friend for brunch. You do this every weekend, but on this particular Sunday he seems a bit off. He is quiet and distant and you sense that something is wrong. Eventually he tells you that he's been laid off and begins to cry. You feel your heart drop and begin to tear up yourself. Seeing your friend upset makes you anxious and uneasy. You imagine what he must be going through and express that you're sorry for him. You may remember the time you lost your job and feel even worse. Most people might consider all these reactions to be a singular empathic response, but in actuality you've experienced a number of psychological states. The trouble with defining empathy is that each state can be thought of as a product of discrete neurological functions.¹⁴

Cognitive scientists and social psychologists are now rigorously teasing out the nuances of empathy. If they can figure out its different facets and learn how to motivate them to promote positive social behavior, it might just offer new possibilities in resolving the conflicts that divide us.

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To sift through the neural underpinnings of empathy, some scientists have narrowed in on how the brain processes pain—more specifically, how it deals with pain outside its own corporeal domain. As it turns out, it doesn't always compute the same way. "Things get tricky", says Claus

¹² Adam Smith, Theory of Moral Sentiments, I.i.1. Accessed May 16, 2019. http://knarf.english.upenn.edu/Smith/tms111.html.

¹³ Adam Smith, Theory of Moral Sentiments, I.i.1. Accessed May 16, 2019. http://knarf.english.upenn.edu/Smith/tms111.html.

¹⁴ Decety, Jean, and William John. Ickes. *The Social Neuroscience of Empathy*. Cambridge, MA: MIT Press, 2011.

Lamm, the head of the Social, Cognitive and Affective Neuroscience Unit at the University of Vienna. ¹⁵ Lamm is interested in what causes the brain to veer in one direction or another. In his experiments, Lamm exposes people to vicarious experiences of pain and sees how different conditions imprint on their brains.

To peer inside the head, Lamm uses functional magnetic resonance imaging, or fMRI. In fMRI studies, subjects slide into the belly of the car-sized, doughnut-shaped magnet. Inside the tube, the person lies perfectly still while the machine clicks and thumps as it generates the strong magnetic field and radio waves that will penetrate the body and reveal the intricacies inside.

The technique works by measuring how blood flows to different regions in the brain as it handles specific mental functions. Like muscles in the body that increase circulation to fuel their movement, the brain also draws blood to power the neurons that constitute it. When particular bundles of neurons fire in the brain, blood flow increases to those areas—fMRI displays the shift in a spray of color, with red and yellow typically indicating the highest signal. The final images show pixelated blotches fading in and out distinct locations in the brain.

More and more fMRI studies provide evidence that the brain is not an all-purpose machine. Instead, it's divvied up into specialized functional systems. So far, scientists have identified distinct components implicated in different cognitive processes, including recognizing faces, hearing high-pitched sounds—and feeling pain.

When you experience pain—say, stubbing your toe on that godforsaken bedpost for the umpteenth time—electrical signals instantaneously shoot up from the tip of your toe to the top of brain and feed into a region called the sensory cortex. On the spongy folds of the brain, the sensory cortex covers a narrow band below where a pair of headphones might rest your head. This region discriminates where and how intense the pain is. It is the part that recognizes the incoming signal from your toe and sets off the alarm that it hurts like hell.

Buried beneath the sensory cortex lie the anterior cingulate cortex (ACC) and insula. They're nestled together behind the forehead—think the spot where a brain freeze might sting. These deeper cerebral structures process the sensation of pain and prepare a response to avoid or end the painful experience. In other words, the ACC and the insula are the ones that make you hop on the good foot while you rub and sooth the other.

It's a similar story when we experience others' pain. In one neuroimaging study, scientists showed participants pictures of hands or feet in either harmless or painful situations and measured the differences in their brain activity. One pair of pictures were close-ups of two hands slicing a zucchini with the right hand keeping the vegetable in place and the left holding the knife mid-plunge. When nothing was out of the ordinary, the participants' brains were

¹⁵ Claus Lamm, director of the Social, Cognitive and Affective Neuroscience Unit at the University of Vienna. Skype interview, 1 Feb. 2019.

unaffected. However, when the thumb of the right hand was in the trajectory of the knife, the ACC and the insula lit up in anticipation of a gruesome accident. Activity in these brain structures suggested that perhaps we hope to end others' suffering the same way we wish to avoid it for ourselves.¹⁶

Interestingly, however, changing the way you vicariously perceive an experience can alter how the pain contagion infects the brain. One crucial distinction lies in focusing on another's feelings versus explicitly adopting their point of view. Lamm explains that imagining yourself going through someone else's hardship is not the same as concentration on how they're feeling as they experience the pain.

To test this self-other distinction, Lamm and his colleagues repeated the stress-inducing handsand-feet experiment but with a twist. They asked participants to either imagine themselves or imagine another individual experiencing the situations they saw in the pictures and rate the level of pain they thought the experience would induce. Not surprisingly, those that adopted the selfperspective reported higher pain ratings and had faster response times.

In a follow-up investigation, another set of participants watched a series of video clips featuring painful medical procedures. They too were instructed to either imagine themselves as the patient undergoing the treatment or focus on the feelings of the person on-screen. Just as before, the participants that imagined themselves pricked and prodded, reported higher personal distress compared to those that concentrated on the pain of the other.¹⁷

"In the end, everything comes together in your brain," says Lamm. You have the ability to take either perspective. "The danger is that they fuse together," he says. Lamm uses the sorrow of heartbreak as an example. "Let's say you're crying because your partner just left you and you're very sad. I pick up on that and it reminds me unconsciously of my own experiences of being rejected or being left by a partner in the past. All of the sudden I think I'm feeling what you're feeling. But in reality, I'm just feeling my own sadness," Lamm says.

The self-other distinction is nuanced, but cognitive science suggests that not heeding the difference can lead to counterproductive emotional fatigue. In a series of fMRI experiments, neuroscientists from the University of College of London measured the brain activity of Matthieu Ricard, a scientist-turned-Buddhist-monk, as he entered a meditative state that purportedly conserved his compassion for others but detached him from completely mirroring their anguish. Ricard described his meditative experience as "a warm positive state associated with a strong prosocial motivation (the inclination to help or benefit others)." The parts of the brain that normally light up in non-meditators when they think about others' pain were dormant

¹⁶ Decety, Jean, and William John. Ickes. *The Social Neuroscience of Empathy*. Cambridge, MA: MIT Press, 2011.

¹⁷ Lamm, C., Batson, C. D., & Decety, J. (2007). The Neural Substrate of Human Empathy: Effects of Perspective-taking and Cognitive Appraisal. *Journal of Cognitive Neuroscience*, 19(1), 42-58. doi:10.1162/jocn.2007.19.1.42

in Ricard. When he was asked to switch into a more immersive empathic state, the circuits associated with empathetic distress were activated. "The empathic sharing," Ricard said, "very quickly became intolerable to me and I felt emotionally exhausted, very similar to being burned out." 18

Further studies found similar results. At the Max Planck Institute of Human Cognitive Brian Sciences, participants were divided into two groups—one that received "empathy training" and the other the received "compassion training." The former focused on the capacity to experience the suffering of others, while the latter focused on responding to suffering with feelings of warmth and care—much like Ricard's meditation. According to the authors, "empathy training" led to negative mental states observed both in activation of pain-related brain circuits and in higher levels of self-reported distress. "Compassion training" on the other hand, was accompanied by positive feelings that the authors suggested would motivate more helping behavior.¹⁹

Lamm supports the more sustainable form of empathy. "This is the goal of empathy in the way we define it—being able say, 'that's what you're feeling, this is what I am feeling; they overlap a great deal, but I'm still a very well aware of what your feelings are and what mine are.' You have to be accurate and not attribute things that are not part of the situation," he says.

Lamm's work offers evidence that the difference might be detectable in the brain. In his experiments, the participants who deliberately projected themselves onto the patient's experience and consequently confused their emotions, had stronger signals not only the ACC and the insula but a region called the right temporoparietal junction (RTPJ).²⁰ Separate studies have linked the RTPJ with the ability to understanding what others are thinking, but its precise role in empathy is not definitely understood. "What exactly that region is doing is not entirely clear yet," says Lamm.

Neuroscience has begun to tease out fundamental knowledge about the social phenomenon of empathy. As the field continues to decipher it in the brain, the hope is that future fMRI studies will inform the work of social scientists who are working to understand and manifests empathy in context of real-world conflicts.

¹⁸ Levenson, Robert W., Paul Ekman, and Matthieu Ricard. "Meditation and the Startle Response: A Case Study." *Emotion*12, no. 3 (2012): 650-58. doi:10.1037/a0027472.

¹⁹ Klimecki, Olga M., Susanne Leiberg, Matthieu Ricard, and Tania Singer. "Differential Pattern of Functional Brain Plasticity after Compassion and Empathy Training." *Social Cognitive and Affective Neuroscience*9, no. 6 (2013): 873-79. doi:10.1093/scan/nst060.

²⁰ Decety, Jean, and William John. Ickes. *The Social Neuroscience of Empathy*. Cambridge, MA: MIT Press, 2011

The tendency to connect with others—to care about and help those in need—seems to be ingrained in our biology. Even as infants we recognize sadness, fear and pain in other people and are motivated to alleviate their stress.²¹ Yet, the empathic reflex is not universal. People routinely fail to react to others' suffering when the victims are distant in space, time or kinship, and especially when they belong to a different racial, political or social group.²²

Psychological studies have consistently documented this relative gap in empathy. In one experiment, White and Asian adults who displayed normal empathic capacity in test settings had lower brain activity in their ACC and insula when watching people of a different race being pricked by a needle.²³

Some evolutionary biologists suggest that the motivation to prioritize the well-being of our own tribe and express hostility towards any outsider who threatens it is hard-wired in our nature. One theory proposes that animosity isn't spurred by malice, but instead presents as a side-effect of the human tendency to protect and defend.²⁴ An inherent sense of tribalism might have galvanized the most ardent ancient warriors to fight for their nations. If they won, that innate inclination might have passed on as the warriors became fathers. In this argument, perhaps it is not a "lack of empathy that makes it very easy for us to plunge into wars," as President Barack Obama said, but rather an imbalance of it.

The powerful bonds of empathy aren't necessarily bound by blood. They can form even when the boundaries between rivals are completely arbitrary. Children randomly assigned to "blue" and "red" teams tend to show greater empathy towards like-cladded peers than to those wearing a different colored shirt.²⁵ This "us" versus "them" mentality is referred to as the intergroup empathy bias—with people who share the same identity as part of the in-group and those who oppose it as the out-group. Intergroup empathy biases are most salient when groups are in direct competition with each other.

²¹ Batson, C. Daniel. "These Things Called Empathy: Eight Related but Distinct Phenomena." *The Social Neuroscience of Empathy*, 2009, 3-16. doi:10.7551/mitpress/9780262012973.003.0002.

²² Cikara, M., E. Bruneau, J.j. Van Bavel, and R. Saxe. "Their Pain Gives Us Pleasure: How Intergroup Dynamics Shape Empathic Failures and Counter-empathic Responses." *Journal of Experimental Social Psychology*55 (2014): 110-25. doi:10.1016/j.jesp.2014.06.007.

²³ Xu, X., X. Zuo, X. Wang, and S. Han. "Do You Feel My Pain? Racial Group Membership Modulates Empathic Neural Responses." *Journal of Neuroscience*29, no. 26 (2009): 8525-529. doi:10.1523/jneurosci.2418-09.2009.

²⁴ Choi, Jung-Kyoo, and Samuel Bowles. "The Coevolution of Parochial Altruism and War." *Science*318, no. 5850 (2007): 636-40. doi:10.1126/science.1144237.

²⁵ Masten, Carrie L., Cari Gillen-O'Neel, and Christia Spears Brown. "Children's Intergroup Empathic Processing: The Roles of Novel Ingroup Identification, Situational Distress, and Social Anxiety." *Journal of Experimental Child Psychology* 106, no. 2-3 (2010): 115-28. doi:10.1016/j.jecp.2010.01.002.

Consider the rivalry between Red Sox and Yankees fans. In an fMRI study, fans scanned as they watched the rival team fail to score, weren't just apathetic, they actually reported feeling pleasure and showed activity in the circuits of the brain involved in reward.²⁶

The German word "schadenfreude"—literally translated to "damage" "joy"—is used to describe the pleasure derived from an another's misery. Giving into schadenfreude not only prevents empathy from taking hold, it can be so powerful as to override self-interest. In other words, people feel pleasure at rivals' misfortunes, even when the misfortunes have negative implications for society at large. For example, Democrats who strongly identified with their political party, reported considerable schadenfreude after reading an article describing an economic downturn that occurred during a Republican administration—a fall that could have affected them as negatively as their political rivals.²⁷

Just because of who they are and not necessarily because of something they have done, groups reliably show diminished empathy across the divide. In the absence of empathy, intergroup conflicts generate more aggression than interpersonal discord and hinder pro-social behaviors, like helping in times of need. Take the aftermath of Hurricane Katrina. People who attributed fewer human emotions like anguish and mourning to victims of the opposite race after the storm wreaked havoc on the city of New Orleans, were less willing to volunteer for relief efforts to help those victims.²⁸

Still, understanding how and why the fabric of empathy rips doesn't mean much if we can't find a way to sow it back together. For many students of empathy and advocates in bridge building organizations, like One America, the strategy is to use advances in research to mitigate intergroup conflict—whether it's between sports fans, different nations, or political parties.

Hence, on that cold January night in Utah, Hanauer brought ideas from social science to bear on the conversations between local LDS members and Jews. Down the hall from the chapel in the recreational space of the church, a darkened scoreboard hangs on the wall as the attendees huddle around tables placed across the basketball court. In small groups, the participants discuss their impressions and experiences with the other faith. Their chatter fills the high ceilings of the basketball-court-turned-safe-space until Hanaeur calls for everyone's attention. He introduces what he believes to be part of the reason the country is so divided: the idea of metaperceptions.

²⁶ Cikara, Mina, and Susan T. Fiske. "Stereotypes and Schadenfreude." *Social Psychological and Personality Science*3, no. 1 (2011): 63-71. doi:10.1177/1948550611409245.

²⁷ Combs, David J.y., Caitlin A.j. Powell, David Ryan Schurtz, and Richard H. Smith. "Politics, Schadenfreude, and Ingroup Identification: The Sometimes Happy Thing about a Poor Economy and Death." *Journal of Experimental Social Psychology* 45, no. 4 (2009): 635-46. doi:10.1016/j.jesp.2009.02.009.

²⁸ Cuddy, Amy J. C., Mindi S. Rock, and Michael I. Norton. "Aid in the Aftermath of Hurricane Katrina: Inferences of Secondary Emotions and Intergroup Helping." *Group Processes & Intergroup Relations* 10, no. 1 (2007): 107-18. doi:10.1177/1368430207071344.

"Metaperceptions are what I think the other side thinks about me. So, for instance, what do Republicans think Democrats think of Republicans," he says. "As it turns out, when we believe the other side doesn't like us, we don't like them back. And even if our initial impression was wrong, it creates a feedback cycle that makes it worse and worse."

Hanauer opens the floor for participants to air their concerns with metaperceptions in their own lives. One woman describes her resigned frustration from being called an "immigrant sewer rat" in Texas before moving to Utah. "I should probably say something to them, but I don't," she says. "I think it comes back to education in most instances. Because I don't understand where they're coming from."

Another woman stands and talks about how the topic of religion can be a source of contention in her family. "When we just focus on (religion), we don't like each other. And it's hard, and it's difficult, and love is not present," she says. "But if we broaden our perspectives, we realize that we are really similar and that we're all experiencing this human mortal journey at the same time."

Despite these feel-good sentiments and as well-intentioned as Hanaeur and One America may be, it is hard to assess how effective such strategies are on people who seem open-minded to begin with. This isn't to cheapen the organization's efforts, but to acknowledge the possibility that perhaps those that showed up to the interfaith workshop are more prone to empathy than the highly polarized members of their respective groups—people who might forgo even the first step on the bridge to the other side. As it turns out, eliciting empathy from more obstinate individuals is often a more difficult endeavor.

In such circumstances, conflict-resolution and prejudice-reduction programs similar to One America's can backfire. For example, encouraging people to engage in metaperceptions (also referred to as metastereotypes) doesn't always work. When a person imagines how they're perceived by their rival, the ideas that come to mind might cause the metaperceiver to become self-conscious about their part in the conflict. As they reconsider how their behavior affects the impression of others, they confront a type of cognitive dissonance. To deal with it, an aversion reflex kicks in, defenses go up, and they stand even more firmly behind their biased beliefs.²⁹

In 2014, Paul Bloom a professor of psychology and cognitive science at Yale University drew attention to such risks in his book *Against Empathy: The Case for Rational Compassion*.³⁰ In that work, Bloom emphasized the biased nature of empathy. It is narrow, he argued, and only connects us to particular individuals—again, those who look like us or share our ethnic national background. He contended that selective empathy impedes rational judgment by clouding the

²⁹ Vorauer, Jacquie D., and Stacey J. Sasaki. "Helpful Only in the Abstract?" *Psychological Science*20, no. 2 (2009): 191-97. doi:10.1111/j.1467-9280.2009.02265.x.

³⁰ Bloom, Paul. Against Empathy: The Case for Rational Compassion. Londres: Vintage, 2018.

mind so that it cannot see long term or in large scale. Perhaps it is why we are happy to donate to save an individual but shy away from raising our taxes when it could help larger numbers of people. "It's the reason why the whole world cares more about a baby stuck in a well than about global warming," Bloom told *The Atlantic*.³¹

Bloom argues that empathy be set aside and replaced with non-empathic compassion, or what he sees as a more distanced concern for others—one motivated by emotion but steered mainly by reason and systematic deliberation. In effect, Bloom suggests empathy has no role in moral judgment, which might mean forsaking the individual for the greater good.

Advocates of empathy counter that judgment is not improved when emotion and reason are separated. Denise Cummins, a cognitive scientist and elected Fellow of the Association for Psychological Science published a rebuttal to Bloom in the *Psychology Today*. In it she says, "It was the cold light of reason—based of course on false beliefs—that gave us laws permitting slavery, burning human beings at the stake, and bear baiting as a form of entertainment. It was empathy for the victim that ended these practices." Nevertheless, Cummings acknowledges the shortcomings of modern empathy as a discriminatory practice. "We can certainly see all mankind as our family. The problem is that we don't," she writes. The prevailing solution, and Cummings agrees, is not to scrub out empathy altogether, but train it to extend beyond its hardened boundaries.³² To this end, scientists are refining their approaches to promote empathy where it matters the most.

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Boaz Hameiri is a social cognitive scientist in the Peace and Conflict Neuroscience (PCN) Lab at the Annenberg School for Communication at the University of Pennsylvania. He has designed and implemented interventions for regions involved in intractable conflicts, including the one in his home country of Israel. In 2013, Hameiri set out to soften the hardline mindset of 161 Jewish Israelis affected by the Israeli-Palestinian conflict³³.

Hameiri was aware of the problems studied in earlier interventions. Previous studies attempted to induce a healthy sense of skepticism by presenting people with information that was inconsistent with their stagnant beliefs. But not unlike metaperceptions, these experiments often failed. Challenging a person's beliefs, especially during times of conflict, can create an internal tension that people often resolve by doubling-down.

³¹ https://www.theatlantic.com/video/index/474588/why-empathy-is-a-bad-thing/

 $^{^{32}\} https://www.psychologytoday.com/us/blog/good-thinking/201310/why-paul-bloom-is-wrong-about-empathy-and-morality$

³³ Hameiri, B., R. Porat, D. Bar-Tal, A. Bieler, and E. Halperin. "Paradoxical Thinking as a New Avenue of Intervention to Promote Peace." *Proceedings of the National Academy of Sciences* 111, no. 30 (2014): 10996-1001. doi:10.1073/pnas.1407055111.

For that reason, Hameiri took a different approach. Instead of confronting people with views that directly opposed their own, he pushed their established beliefs to the extreme. This strategy is based on paradoxical thinking, or the practice of exaggerating ideas almost to the point of absurdity. For the Jewish Israelis this meant telling them they actually needed the conflict to persist in order to feel positively about themselves.

Perhaps surprisingly, Hameiri's shock tactic worked. The researchers found that participants who were exposed to the intervention expressed more conciliatory attitudes regarding the conflict. Even more noteworthy was the lasting effect of the intervention. During the 2013 Israeli general elections that took place after the study, participants who were exposed to paradoxical thinking reported that they were more inclined to vote for parties that advocated for peaceful resolution to the conflict.

Hameiri attributes the success of the campaign to the social phenomenon he calls unfreezing. "When people are put in spot they don't want to be in, they begin to reassess and reevaluate their views," he says. "When you get them there, they become more open to different viewpoints. If you get them to unfreeze then you can eventually change their minds."³⁴

Hameiri and the PCN Lab are currently designing interventions to address other conflicts around the world. They have been collaborating with social psychologists in Colombia to create a campaign to help integrate ex-FARQ members into society now that the peace agreement between the country's government and the rebel group has been signed. "We are first trying to understand what attitudes Colombian civilians feel towards ex-FARQ members. From there we can find a target for intervention," Hameiri says.

As Hameiri's work suggests, conflict resolution isn't about winners and losers. "In the real world you often increase everybody's outcome if you negotiate well," says Jay Van Bavel, a professor psychology and the director of Social Perception and Evaluation Laboratory at New York University.³⁵

Van Bavel gives an example of twin sisters fighting over the last orange in the kitchen pantry. The two bicker and both are reluctant to hear the other's argument—each convinced that she deserves the prized fruit. An exasperated parent might slice the orange down the middle and hand each sister an even half—believing this to be the most equitable solution. But what if one sister wanted the orange for its refreshing juice while the other wanted it for its zesty peel to make a cake?

³⁴ Boaz Hameiri, postdoctoral researcher at Peace and Conflict Neuroscience (PCN) Lab at the Annenberg School for Communication at the University of Pennsylvania. Skype interview, 29 Jan. 2019.

³⁵ Jay Van Bavel, director of Social Perception and Evaluation Laboratory at New York University. Phone interview, 2 April 2019.

"If you actually had a conversation you'd realize, well peel the orange and then one person gets the full orange for the orange juice and the other person gets the full peel for the cake and they both win," says Van Bavel. "And that's similar to the way the real world works. Often, if you try to understand the other person and have a healthy dialogue, you can realize there's these win-win opportunities rather than just cutting resources in half and treating it like a zero-sum game."

Van Bavel emphasizes this is particularly the case when the conflict doesn't just revolve around resources. He points to a different set of experiments carried out with Palestinian and Israeli participants (in which neither he nor Hameiri were involved). The scientist who conducted the research were looking to find out what happens when people try to resolved their conflicts over sacred values—specifically the land. They found that offering material incentives, actually heightened violent opposition to compromise. In other words, if you offered money to people for the land as a kind of reparation, it actually made the conflict worse. "In those situations where there's conflict over sacred values, you need a gesture that is on the same dimension," Van Bavel says. "It's not always a battle over economic resource. In fact, sometimes giving people access to those resources can actually backfire."

A myopic perspective isn't some isolated affliction in far-off corners of the globe. Examples in the U.S. can crop up every day—whether it's funding for "the wall," the Kavanaugh hearings, or sports players taking a knee during the national anthem. You only have to turn on a TV or look at your phone to see a wholly polarized discourse.

In his current work, Van Bavel is focusing on how inflammatory language cultivates a selective brand of empathy—especially in social media where every voice can be amplified instantaneously. "When people use moral emotional language in their tweets, those tweets are shared more, but only among other people who share their ideology," he says. This is what is commonly known as the echo chamber effect.

We are living in a time when digital "likes" and "dislikes" filter our feeds and almost exclusively reflect our values back to us. The posts, comments, and shares we see every day are often charged with emotional language—language that reinforces our believes and blocks those of others. "It's really good language for mobilizing your base or your tribe, but also for alienating or disconnecting from the other tribe," says Van Bavel.

In his TEDx Talk, Van Bavel discusses the crux of the matter: "How are we going to agree if we're seeing radically different interpretations of reality?" For over a decade, Van Bavel has been taking an approach that blends theory and methods from social psychology and cognitive neuroscience to investigate how social perceptions are grounded in brain. In his 2008 fMRI study on the neural functions underlying in-group bias he concludes, "humans are a fundamentally social species, and understanding the neural processes that underlie intergroup perception and

evaluation promises to yield important insights into how people navigate their complex social worlds."³⁶

Van Bavel now offers some of those insights to resolve intergroup conflicts.

"One of the most powerful (strategies) that is not that hard to do, is to create a shared identity," says Van Bavel. This happens naturally in the real world all the time. President George W. Bush's approval ratings jumped from around 60% to a steady 80-90% in the months following the September 11 attacks. Van Bavel says that in the time of national crisis, "people suddenly stop thinking as Republicans and Democrats and start thinking of themselves in terms of American."

Banding together behind a common goal doesn't have to be a consequence of a disaster. It can be a measure to prevent it. "People who are competing with one another in groups show little empathy for the outgroup," Van Bavel says. "But the moment that they start listening to each other and working together, empathy comes back online."

Hanauer agrees. "We want to build cross-cutting identities," he says. "Say I'm a Democrat, and you're a Republican, but we both care about homelessness. Through action together we can build that identity and that builds the relationship and trust where you can then get at the harder issue."

Fostering common identities might be a silver bullet for conflict in an ideal world. But these are not ideal times. In the current era of polarization, the combination of mass media and destructive weaponry means that whenever there are pathological failures of empathy both the damage done and the noise made can be enormous in ways that weren't true just a few short decades ago.

On April 27, 2019, exactly six months after the Tree of Life massacre, a shooting erupted in another house of worship across the country. The incident occurred in the Chabad of Poway synagogue in a suburb of San Diego, California on the morning of the final day of Passover. One person was killed and three others were wounded. As in Pittsburgh, reports say a document posted online by the arrested gunman is full of anti-Semitic and anti-Muslim views.³⁷

Clearly, there is no limit to the number of tragedies caused by the human capacity for hate. The one constant between extreme acts of violence and pervasive conflicts seems to be a tendency to define opponents not simply as people with different views, but as illegitimate others.

If peaceful resolutions for the most intractable conflicts is to be reached, it will almost certainly require collaboration between neuroscience and increasingly sophisticated social psychology. As much as fMRI has allowed us to look inside and understanding where our attention and care for

³⁶ Bavel, Jay J. Van, Dominic J. Packer, and William A. Cunningham. "The Neural Substrates of In-Group Bias." *Psychological Science*19, no. 11 (2008): 1131-139. doi:10.1111/j.1467-9280.2008.02214.x.

³⁷ "Here's what we know so far about the Poway synagogue shooting." *Vox.* 29 April 2019. Web.

others originates, levering that knowledge to affect behavior has proven to be a complicated endeavor. Thus, Van Bavel advocates for a combined approach—one that uses social dynamics to give insight into the human mind as well as applies functional understanding of the brain to generate large-scale collective action.

"I find MRI very useful, because it lets you look under the hood. If your car is broken, you don't know if the starter is not working or the spark plug, or the fan belt. You take into a mechanic; they lift up the hood and can see what part of it is broken. It's the same as understanding human psychology behavior," says Van Bavel. "We still need to do research using all the tools that we have at all these different levels of analysis that really build a better picture of how to resolve these issues."