This workshop was held at the 2017 Equal Justice Conference in Pittsburgh, Pennsylvania.

Title:
Innovating in Practice: Creating, Developing and Updating Pro Bono Projects that Serve Rural or Isolated Communities

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Lawyers are rarely taught the tools or provided the freedom needed to effectively evaluate, innovate, and improve our existing projects. In this session, participants will use a structured, creative problem-solving process to learn how to re-design pro bono service models to better serve rural and diverse client communities. Participants will have an opportunity to work in small groups to apply the tools they learn to their own projects.
Creating, Developing, & Updating Pro Bono Projects That Serve Rural Or Isolated Communities

Equal Justice Conference
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Welcome!

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Roadmap

1. Ice Breaker
2. Goals for this Session
3. Overview of Human Centered Design
4. Case Study - Bay Area Rural Justice Collaborative
5. Small Group Design Challenge
6. Report Back
7. Closing
Session Goals

Understand and apply principles of Human Centered Design to create, reevaluate, and renew existing pro bono projects.

Develop tools to proactively and creatively apply problem-solving techniques to existing pro bono programming.

Build capacity to identify and correct for implicit bias in pro bono programming.
Crumple and Toss
Human Centered Design

https://vimeo.com/106505300
Human Centered Design - Inspiration
Human Centered Design - Implementation
Case Study: Rural Justice Collaborative

- SF Bay Area APBCo IMPACT Project
- Launched May 2013
- Limited scope legal clinics staffed by pro bono attorneys
- Rural and isolated areas of the greater San Francisco Bay Area
- Regularly scheduled clinics
Case Study: Rural Justice Collaborative
Design Challenge!

1. Small Groups
2. Select:
   a. Interviewee
   b. Recorder
   c. Reporter
   d. Interviewer
3. Inspiration
4. Ideation
5. Implementation
6. Report Back
Report-Back
Conclusion
Thank you
THE FIELD GUIDE TO HUMAN-CENTERED DESIGN

DESIGN KIT
What Does It Mean to Be a Human-Centered Designer?

Embracing human-centered design means believing that all problems, even the seemingly intractable ones like poverty, gender equality, and clean water, are solvable. Moreover, it means believing that the people who face those problems every day are the ones who hold the key to their answer. Human-centered design offers problem solvers of any stripe a chance to design with communities, to deeply understand the people they’re looking to serve, to dream up scores of ideas, and to create innovative new solutions rooted in people’s actual needs.

At IDEO.org and IDEO, we’ve used human-centered design for decades to create products, services, experiences, and social enterprises that have been adopted and embraced because we’ve kept people’s lives and desires at the core. The social sector is ripe for innovation, and we’ve seen time and again how our approach has the power to unlock real impact. Being a human-centered designer is about believing that as long as you stay grounded in what you’ve learned from people, your team can arrive at new solutions that the world needs. And with this Field Guide, you’re now armed with the tools needed to bring that belief to life.
Adopt the Mindsets

Human-centered designers are unlike other problem solvers—we tinker and test, we fail early and often, and we spend a surprising amount of time not knowing the answer to the challenge at hand. And yet, we forge ahead. We’re optimists and makers, experimenters and learners, we empathize and iterate, and we look for inspiration in unexpected places. We believe that a solution is out there and that by keeping focused on the people we’re designing for and asking the right questions, we’ll get there together. We dream up lots of ideas, some that work and some that don’t. We make our ideas tangible so that we can test them, and then we refine them. In the end, our approach amounts to wild creativity, to a ceaseless push to innovate, and a confidence that leads us to solutions we’d never dreamed of when we started. In the Field Guide, we share our philosophy of design and the seven mindsets that set us apart: Empathy, Optimism, Iteration, Creative Confidence, Making, Embracing Ambiguity, and Learning from Failure.
Understand the Process

Human-centered design isn’t a perfectly linear process, and each project invariably has its own contours and character. But no matter what kind of design challenge you’ve got, you’ll move through three main phases: Inspiration, Ideation, and Implementation. By taking these three phases in turn, you’ll build deep empathy with the communities and individuals you’re designing for; you’ll figure out how to turn what you’ve learned into a chance to design a new solution; and you’ll build and test your ideas before finally putting them out into the world. At IDEO.org and IDEO, we’ve used human-centered design to tackle a vast array of design challenges, and though our projects have ranged from social enterprises to communication campaigns to medical devices, this particular approach to creative problem solving has seen us through each time.

**INSPIRATION**
In this phase, you’ll learn how to better understand people. You’ll observe their lives, hear their hopes and desires, and get smart on your challenge.

**IDEATION**
Here you’ll make sense of everything that you’ve heard, generate tons of ideas, identify opportunities for design, and test and refine your solutions.

**IMPLEMENTATION**
Now is your chance to bring your solution to life. You’ll figure out how to get your idea to market and how to maximize its impact in the world.
Use the Tools

Though no two human-centered design projects are alike, we draw from the same kit of tools for each of them. For example, to build deep empathy with the people we’re trying to serve, we always conduct interviews with them. To maintain creativity and energy, we always work in teams. To keep our thinking generative, sharp, and because it helps us work things through, we always make tangible prototypes of our ideas. And because we rarely get it right the first time, we always share what we’ve made, and iterate based on the feedback we get. The 57 methods in the Field Guide offer a comprehensive set of exercises and activities that will take you from framing up your design challenge to getting it to market. You’ll use some of these methods twice or three times and some not at all as you work through your challenge. But taken as a set, they’ll put you on the path to continuous innovation while keeping the community you’re designing for squarely at the center of your work.
Trust the Process Even if It Feels Uncomfortable

Human-centered design is a unique approach to problem solving, one that can occasionally feel more like madness than method—but you rarely get to new and innovative solutions if you always know precisely where you’re going. The process is designed to get you to learn directly from people, open yourself up to a breadth of creative possibilities, and then zero in on what’s most desirable, feasible, and viable for the people you’re designing for. You’ll find yourself frequently shifting gears through the process, and as you work through its three phases you’ll swiftly move from concrete observations to highly abstract thinking, and then right back again into the nuts and bolts of your prototype. We call it diverging and converging. By going really big and broad during the Ideation phase, we dream up all kinds of possible solutions. But because the goal is to have a big impact in the world, we have to then identify what, among that constellation of ideas, has the best shot at really working. You’ll diverge and converge a few times, and with each new cycle you’ll come closer and closer to a market-ready solution.
Create Real Impact

Human-centered design is uniquely situated to arrive at solutions that are desirable, feasible, and viable. By starting with humans, their hopes, fears, and needs, we quickly uncover what’s most desirable. But that’s only one lens through which we look at our solutions. Once we’ve determined a range of solutions that could appeal to the community we’re looking to serve, we then start to home in on what is technically feasible to actually implement and how to make the solution financially viable. It’s a balancing act, but one that’s absolutely crucial to designing solutions that are successful and sustainable.
Creative Confidence

Creative confidence is the notion that you have big ideas, and that you have the ability to act on them.

—David Kelley, Founder, IDEO

Anyone can approach the world like a designer. Often all it takes to unlock that potential as a dynamic problem solver is a bit of creative confidence. Creative confidence is the belief that everyone is creative, and that creativity isn’t the capacity to draw or compose or sculpt, but a way of understanding the world.

Creative confidence is the quality that human-centered designers rely on when it comes to making leaps, trusting their intuition, and chasing solutions that they haven’t totally figured out yet. It’s the belief that you can and will come up with creative solutions to big problems and the confidence that all it takes is rolling up your sleeves and diving in. Creative confidence will drive you to make things, to test them out, to get it wrong, and to keep on rolling, secure in the knowledge that you’ll get where you need to go and that you’re bound to innovate along the way.

It can take time to build creative confidence, and part of getting there is trusting that the human-centered design process will show you how to bring a creative approach to whatever problem is at hand. As you start with small successes and then build to bigger ones, you’ll see your creative confidence grow and before long you’ll find yourself in the mindset that you are a wildly creative person.
Make It

You’re taking risk out of the process by making something simple first.
And you always learn lessons from it.

—Krista Donaldson, CEO, D-Rev

As human-centered designers, we make because we believe in the power of tangibility. And we know that making an idea real reveals so much that mere theory cannot. When the goal is to get impactful solutions out into the world, you can’t live in abstractions. You have to make them real.

Human-centered designers are doers, tinkerers, crafters, and builders. We make using anything at our disposal, from cardboard and scissors to sophisticated digital tools. We build our ideas so that we can test them, and because actually making something reveals opportunities and complexities that we’d never have guessed were there. Making is also a fantastic way to think, and it helps bring into focus the feasibility of our designs. Moreover, making an idea real is an incredibly effective way to share it. And without candid, actionable feedback from people, we won’t know how to push our ideas forward.

As you move through the human-centered design process, it doesn’t matter what you make, the materials you use, or how beautiful the result is, the goal is always to convey an idea, share it, and learn how to make it better.

Best of all, you can prototype anything at any stage of the process from a service model to a uniform, from a storyboard to the financial details of your solution. As human-centered designers, we have a bias toward action, and that means getting ideas out of our heads and into the hands of the people we’re looking to serve.
Learn from Failure
Don’t think of it as failure, think of it as designing experiments through which you’re going to learn.

—Tim Brown, CEO, IDEO

Failure is an incredibly powerful tool for learning. Designing experiments, prototypes, and interactions and testing them is at the heart of human-centered design. So is an understanding that not all of them are going to work. As we seek to solve big problems, we’re bound to fail. But if we adopt the right mindset, we’ll inevitably learn something from that failure.

Human-centered design starts from a place of not knowing what the solution to a given design challenge might be. Only by listening, thinking, building, and refining our way to an answer do we get something that will work for the people we’re trying to serve. “Fail early to succeed sooner” is a common refrain around IDEO, and part of its power is the permission it gives to get something wrong. By refusing to take risks, some problem solvers actually close themselves off from a real chance to innovate.

Thomas Edison put it well when he said, “I have not failed. I’ve just found 10,000 ways that won’t work.” And for human-centered designers, sorting out what won’t work is part of finding what will.

Failure is an inherent part of human-centered design because we rarely get it right on our first try. In fact, getting it right on the first try isn’t the point at all. The point is to put something out into the world and then use it to keep learning, keep asking, and keep testing. When human-centered designers get it right, it’s because they got it wrong first.
Empathy

In order to get to new solutions, you have to get to know different people, different scenarios, different places.

—Emi Kolawole, Editor-in-Residence, Stanford University d.school

Empathy is the capacity to step into other people’s shoes, to understand their lives, and start to solve problems from their perspectives. Human-centered design is premised on empathy, on the idea that the people you’re designing for are your roadmap to innovative solutions. All you have to do is empathize, understand them, and bring them along with you in the design process.

For too long, the international development community has designed solutions to the challenges of poverty without truly empathizing with and understanding the people it’s looking to serve. But by putting ourselves in the shoes of the person we’re designing for, human-centered designers can start to see the world, and all the opportunities to improve it, through a new and powerful lens.

Immersing yourself in another world not only opens you up to new creative possibilities, but it allows you to leave behind preconceived ideas and outmoded ways of thinking. Empathizing with the people you’re designing for is the best route to truly grasping the context and complexities of their lives. But most importantly, it keeps the people you’re designing for squarely grounded in the center of your work.
Embrace Ambiguity

We want to give ourselves the permission to explore lots of different possibilities so that the right answer can reveal itself.

—Patrice Martin, Co-Lead and Creative Director, IDEO.org

Human-centered designers always start from the place of not knowing the answer to the problem they’re looking to solve. And in a culture that can be too focused on being the first one to the right answer, that’s not a particularly comfortable place to be. But by starting at square one, we’re forced to get out into the world and talk to the people we’re looking to serve. We also get to open up creatively, to pursue lots of different ideas, and to arrive at unexpected solutions. By embracing that ambiguity, and by trusting that the human-centered design process will guide us toward an innovative answer, we actually give ourselves permission to be fantastically creative.

One of the qualities that sets human-centered designers apart is the belief that there will always be more ideas. We don’t cling to ideas any longer than we have to because we know that we’ll have more. Because human-centered design is such a generative process, and because we work so collaboratively, it’s easy to discard bad ideas, hold onto pieces of the so-so ones, and eventually arrive at the good ones.

Though it may seem counterintuitive, the ambiguity of not knowing the answer actually sets up human-centered designers to innovate. If we knew the answer when we started, what could we possibly learn? How could we come up with creative solutions? Where would the people we’re designing for guide us? Embracing ambiguity actually frees us to pursue an answer that we can’t initially imagine, which puts us on the path to routine innovation and lasting impact.
Optimism

Optimism is the thing that drives you forward.

—John Bielenberg, Founder, Future Partners

We believe that design is inherently optimistic. To take on a big challenge, especially one as large and intractable as poverty, we have to believe that progress is even an option. If we didn’t, we wouldn’t even try. Optimism is the embrace of possibility, the idea that even if we don’t know the answer, that it’s out there and that we can find it.

In addition to driving us toward solutions, optimism makes us more creative, encourages us to push on when we hit dead ends, and helps all the stakeholders in a project gel. Approaching problems from the perspective that you’ll get to a solution infuses the entire process with the energy and drive that you need to navigate the thorniest problems.

Human-centered designers are persistently focused on what could be, not the countless obstacles that may get in the way. Constraints are inevitable, and often they push designers toward unexpected solutions. But it’s our core animating belief—that every problem is solvable—that shows just how deeply optimistic human-centered designers are.
Iterate, Iterate, Iterate

By iterating, we validate our ideas along the way because we’re hearing from the people we’re actually designing for.

—Gaby Brink, Founder, Tomorrow Partners

As human-centered designers, we adopt an iterative approach to solving problems because it makes feedback from the people we’re designing for a critical part of how a solution evolves. By continually iterating, refining, and improving our work, we put ourselves in a place where we’ll have more ideas, try a variety of approaches, unlock our creativity, and arrive more quickly at successful solutions.

Iteration keeps us nimble, responsive, and trains our focus on getting the idea and, after a few passes, every detail just right. If you aimed for perfection each time you built a prototype or shared an idea, you’d spend ages refining something whose validity was still in doubt. But by building, testing, and iterating, you can advance your idea without investing hours and resources until you’re sure that it’s the one.

At base, we iterate because we know that we won’t get it right the first time. Or even the second. Iteration allows us the opportunity to explore, to get it wrong, to follow our hunches, but ultimately arrive at a solution that will be adopted and embraced. We iterate because it allows us to keep learning. Instead of hiding out in our workshops, betting that an idea, product, or service will be a hit, we quickly get out in the world and let the people we’re designing for be our guides.
INSPIRATION

The Inspiration phase is about learning on the fly, opening yourself up to creative possibilities, and trusting that as long as you remain grounded in desires of the communities you’re engaging, your ideas will evolve into the right solutions. You’ll build your team, get smart on your challenge, and talk to a staggering variety of people.

THIS PHASE WILL HELP YOU ANSWER
How do I get started?
How do I conduct an interview?
How do I keep people at the center of my research?
What are other tools I can use to understand people?
IDEATION

In the Ideation phase you’ll share what you’ve learned with your team, make sense of a vast amount of data, and identify opportunities for design. You’ll generate lots of ideas, some of which you’ll keep, and others which you’ll discard. You’ll get tangible by building rough prototypes of your ideas, then you’ll share them with the people from whom you’ve learned and get their feedback. You’ll keep iterating, refining, and building until you’re ready to get your solution out into the world.

THIS PHASE WILL HELP YOU ANSWER
How do I make sense of what I’ve learned?
How do I turn my learnings into an opportunity for design?
How do I make a prototype?
How do I know my idea is working?
IMPLEMENTATION

In the Implementation phase you’ll bring your solution to life, and to market. You’ll build partnerships, refine your business model, pilot your idea, and eventually get it out there. And you’ll know that your solution will be a success because you’ve kept the very people you’re looking to serve at the heart of the process.

THIS PHASE WILL HELP YOU ANSWER
How do I plan for what’s next?
How do I make my concept real?
How do I assess if my solution is working?
MINI DESIGN CHALLENGE:
DESIGN A BETTER PRO BONO EXPERIENCE

Adapted from +ACUMEN HCD WORKSHOP/IDEO.org

Human-centered design begins with in-depth interviews and qualitative research. This helps us get a better sense for the people we’re designing for. For this activity, divide into groups of four (or five, if your workshop team has an odd number of people).

CASE STUDY: Think about an experience you’ve had either pitching, accepting, or working on a pro bono case/opportunity. Get yourself into the memory of what that experience was like: in either handing over the case/opportunity to a pro bono attorney, accepting a case/opportunity as a pro bono attorney yourself, and/or working on a pro bono case/opportunity.

STEP ONE: DISCOVER

Interview: Interview the member of the group selected as interviewee. Begin by understanding their experience with the pro bono case/opportunity. Ask not just about logistics, though: find out how things made them feel, what they wish could have been different, what they enjoyed, what got in their way. Your job is to listen and learn, so DISCOVER – and don’t be afraid to ask “Why?”

A few techniques you might try

• Try asking “Why?” in response to five consecutive answers from the interviewee.
• Ask the interviewee to visualize the pro bono experience with a drawing or a diagram.
MINI DESIGN CHALLENGE:  
DESIGN A BETTER PRO BONO EXPERIENCE

Adapted from +ACUMEN HCD WORKSHOP/IDEO.org

STEP TWO: IDEATE

Interpreting needs: Read over your notes from the interview as a group. Write down answers to the questions below.

What were three unique aspects of the interviewee’s experience? What were three needs that the interviewee faced?

__________________________________________  _________________________________________

__________________________________________  _________________________________________

__________________________________________  _________________________________________

__________________________________________  _________________________________________

__________________________________________  _________________________________________

STEP THREE: IDEATE

Brainstorm: Now’s your chance to imagine some new solutions that might address the interviewee’s needs. Work with your group and sketch four to six radical new ways to improve the pro bono experience the interviewee described. As a group, work collaboratively and try to come up with a few ideas that might improve the pro bono experience the interviewee described. Don’t worry about being perfect; draw your ideas quickly to capture them. Use more paper if you need it!
MINI DESIGN CHALLENGE:
DESIGN A BETTER PRO BONO EXPERIENCE

Adapted from +ACUMEN HCD WORKSHOP/IDEO.org

STEP FOUR: PROTOTYPE
Prototype:
Okay, time to get tangible. Making something visual or physical will help you better imagine the possibilities and the pitfalls of your solution, as well as explain it more easily to others. Your prototype can be a model, a diagram, or a more detailed drawing. It’s great to grab some scissors, construction paper, tape, and markers (or anything else around you) and make that idea visual. work together as a group.

STEP FIVE: PROTOTYPE
Feedback: Share your favorite ideas with another team. Get feedback from them. Don’t sell your ideas; explain them simply, and find out what they really think. What excites them about your ideas? How would they change or improve them?
MYTH: Implicit bias is nothing more than beliefs people choose not to tell others. They know how they feel; they just know they cannot or should not say those beliefs aloud, so they hide them.

**BUSTED** Implicit bias differs from suppressed thoughts that individuals may conceal for social desirability purposes. Implicit biases are activated involuntarily and beyond our awareness or intentional control. Implicit bias is concerned with unconscious cognition that influences understanding, actions, and decisions, whereas individuals who may choose not to share their beliefs due to social desirability inclinations are consciously making this determination.

MYTH: Implicit bias is nothing more than stereotyping.

**BUSTED** Implicit biases and stereotyping are closely related concepts that can be easily confused. Both implicit biases and stereotypes are types of associations that can be positive and negative. While it is true that implicit associations may form as a result of exposure to persistent stereotypes, implicit bias goes beyond stereotyping to include favorable or unfavorable evaluations toward groups of people. Additionally, implicit biases are activated involuntarily, whereas stereotyping may be a deliberate process of which you are consciously aware.

MYTH: Having implicit biases makes me a bad person.

**BUSTED** Bias is a natural phenomenon in that our brains are constantly forming automatic associations as a way to better and more efficiently understand the world around us. No one is a “bad” person for harboring implicit biases; these are normal human processes that occur on an unconscious level. Some implicit biases are even positive in nature. In terms of the existence of unwanted, negative implicit biases, fortunately our brains are malleable, thus giving us the capacity to mitigate their effect though research-based debiasing strategies.
How Does It Operate?

**MYTH:** I am not biased; I have diverse friends and I believe in equal treatment.

Actually, we all have implicit biases. Research shows that all individuals are susceptible to harnessing implicit associations about others based on characteristics like race, skin tone, income, sex, and even attributes like weight, and accents. Unfortunately, these associations can even go as far as to affect our behavior towards others, even if we want to treat all people equally or genuinely believe we are egalitarian.

**MYTH:** I am fully aware of my thoughts and actions, and I make all of my decisions based on facts and evidence; therefore, implicit bias does not affect my behavior.

By their very nature, implicit biases operate outside of our conscious awareness. Thus, it is possible that your thoughts and actions are being influenced by implicit associations beyond your recognition. In fact, researchers have found that sometimes implicit associations can more accurately predict behavior than explicit beliefs and thoughts.

**MYTH:** I’m Black; I can’t have bias against Black people. I’m also a woman, so it does not make sense that I would have implicit biases against my own sex.

Researchers have discovered that many Americans, regardless of race, display a pro-White/anti-Black bias on the Implicit Association Test. Similarly, some research has documented the prevalence of pro-male/anti-female implicit biases in both men and women. This occurs because implicit biases are robust and pervasive affecting all individuals, even children. We are all exposed to direct and indirect messages throughout the course of our lifetime that can implicitly influence our thoughts and evaluations of others.

What Can We Do About It?

**MYTH:** If bias is natural, there is obviously nothing we can do about it.

Just because bias is a natural tendency does not mean that we are helpless to combat it. Indeed, unwanted implicit biases can be mitigated. Researchers have demonstrated the efficacy of various intervention strategies, such as intergroup contact, perspective-taking, and exposure to counter-stereotypical exemplars. By taking the time to understand your personal biases, you can begin to mitigate their effects.

**MYTH:** It’s a waste of time to try to mitigate my implicit biases. They do not impact anyone anyways.

Extensive research has documented the real-world effects of implicit biases in the realms of health care, criminal justice, education, employment, and housing, among others. For example, implicit biases can affect the quality of care a patient receives, the level of encouragement students receive from their teachers, whether or not an individual receives an interview or promotion, and more. Implicit biases have huge implications; thus, it is important to identify your own biases and then actively engage in debiasing techniques to address them.
Primer on Implicit Bias

Implicit bias refers to the attitudes or stereotypes that affect our understanding, actions, and decisions in an unconscious manner. These biases, which encompass both favorable and unfavorable assessments, are activated involuntarily and without an individual’s awareness or intentional control (Blair, 2002; Rudman, 2004a). Residing deep in the subconscious, these biases are different from known biases that individuals may choose to conceal for the purposes of social and/or political correctness. Rather, implicit biases are not accessible through introspection (Beattie, 2013; J. Kang et al., 2012). Internationally acclaimed social scientist David R. Williams grounds the conceptual in real world realities when he states, “This is the frightening point: Because [implicit bias is] an automatic and unconscious process, people who engage in this unthinking discrimination are not aware of the fact that they do it” (Wilkerson, 2013, p. 134).

Everyone is susceptible to implicit biases (Nosek, Smyth, et al., 2007; Rutland et al., 2005). Dasgupta likens implicit bias to an “equal opportunity virus” that everyone possesses, regardless of his/her own group membership (Dasgupta, 2013, p. 239). The implicit associations we harbor in our subconscious cause us to have feelings and attitudes about other people based on characteristics such as race, ethnicity, age, and appearance. These associations are generally believed to develop over the course of a lifetime beginning at a very early age through exposure to direct and indirect messages (Castelli, Zogmaister, & Tomelleri, 2009; J. Kang, 2012; Rudman, 2004a, 2004b). Others have written that implicit ingroup preferences emerge very early in life (Dunham, Baron, & Banaji, 2008). In addition to early life experiences, the media and news programming are often-cited origins of implicit associations (J. Kang, 2012). Dasgupta (2013) writes that exposure to commonly held attitudes about social groups permeate our minds even without our active consent through “hearsay, media exposure, and by passive observation of who occupies valued roles and devalued roles in the community” (Dasgupta, 2013, p. 237).
A FEW KEY CHARACTERISTICS OF IMPLICIT BIASES

- Implicit biases are **pervasive and robust** (Greenwald, McGhee, & Schwartz, 1998; J. Kang et al., 2012; J. Kang & Lane, 2010; Nosek, Smyth, et al., 2007). Everyone possesses them, even people with avowed commitments to impartiality such as judges (Rachlinski et al., 2009).

- Implicit and explicit biases are generally regarded as **related but distinct mental constructs** (Dasgupta, 2013; J. Kang, 2009; Wilson, Lindsey, & Schooler, 2000). They are not mutually exclusive and may even reinforce each other (J. Kang et al., 2012). Some research suggests that implicit attitudes may be better at predicting and/or influencing behavior than self-reported explicit attitudes (Barth & Chartrand, 1999; Beattie, Cohen, & McGuire, 2013; Ziegert & Hanges, 2005). Moreover, some scholars suggest that implicit and explicit attitudes should be considered in conjunction in order to understand prejudice-related responses (Son Hing, Chung-Yan, Hamilton, & Zanna, 2008).

- The implicit associations we hold arise outside of conscious awareness; therefore, they **do not necessarily align with our declared beliefs** or even reflect stances we would explicitly endorse (Beattie et al., 2013; Graham & Lowery, 2004; Greenwald & Krieger, 2006; J. Kang et al., 2012; Reskin, 2005).

- We generally tend to hold implicit biases that **favor our own ingroup**, though research has shown that we can still hold implicit biases against our ingroup (Greenwald & Krieger, 2006; Reskin, 2005). This categorization (ingroup vs. outgroup) is often automatic and unconscious (Reskin, 2000).

- Implicit biases have **real-world effects on behavior** (see, e.g., Dasgupta, 2004; J. Kang et al., 2012; Rooth, 2007).

- Implicit biases are **malleable**; therefore, the implicit associations that we have formed can be gradually unlearned and replaced with new mental associations (Blair, 2002; Blair, Ma, & Lenton, 2001; Dasgupta, 2013; Dasgupta & Greenwald, 2001; Devine, 1989; J. Kang, 2009; J. Kang & Lane, 2010; Roos, Lebrecht, Tanaka, & Tarr, 2013).

MEASURING IMPLICIT COGNITION

The unconscious nature of implicit biases creates a challenge when it comes to uncovering and assessing these biases. Years of research led to the conclusion that self-reports of biases are unreliable, because we are generally weak at introspection and therefore often unaware of our biases (Greenwald et al., 2002; J. Kang, 2005; Nisbett & Wilson, 1977; Nosek, Greenwald, & Banaji, 2007; Nosek & Riskind, 2012; Wilson & Dunn, 2004). Moreover, self-reports are often tainted by social desirability concerns due to impression management tactics through which some individuals modify their responses to conform with what is regarded as “socially acceptable” (Amodio & Devine, 2009; Dasgupta, 2013; Dovidio

With these constraints in mind, researchers from several fields have developed assessments that seek to measure implicit cognition. One avenue of exploration focuses on physiological instruments that assess bodily and neurological reactions to stimuli, such as through use of functional Magnetic Resonance Imaging (fMRI). These studies often focus primarily on the amygdala, a part of the brain that reacts to fear and threat and also has a known role in race-related mental processes (Davis & Whalen, 2001; A. J. Hart et al., 2000; Pichon, Gelder, & Grèzes, 2009; Whalen et al., 2001). Findings from these studies indicate that amygdala activity can provide insights into unconscious racial associations (see, e.g., Cunningham et al., 2004; Lieberman et al., 2005; Phelps et al., 2000; Ronquillo et al., 2007). Other researchers have utilized techniques such as facial electromyography (EMG) and cardiovascular and hemodynamic measures as other physiological approaches to measure implicit prejudices (Blascovich, Mendes, Hunter, Lickel, & Kowai-Bell, 2001; Vanman, Saltz, Nathan, & Warren, 2004).

Another avenue for measuring implicit cognition has included priming methods in which a subliminal initial prime influences or increases the sensitivity of a respondent’s subsequent behaviors (Goff et al., 2008; Tinkler, 2012). Finally, response latency measures that analyze reaction times to stimuli can provide insights into how strongly two concepts are associated (Amodio & Devine, 2009; J. Kang & Lane, 2010; Rudman, 2004a).

The premise of response latency measures undergirds one of the groundbreaking tools for measuring implicit associations—the Implicit Association Test (IAT). The IAT, debuted by Anthony Greenwald and colleagues in 1998, measures the relative strength of associations between pairs of concepts though a straightforward series of exercises in which participants are asked to sort concepts (Greenwald et al., 1998). This matching exercise relies on the notion that when two concepts are highly associated, the sorting task will be easier and therefore require less time than it will when the two concepts are not as highly associated (Greenwald & Nosek, 2001; Reskin, 2005). Any time differentials that emerge through these various sorting tasks provide insights into the implicit associations the test-taker holds. These time differentials (known as the IAT effect) have been found to be statistically significant and not simply a result of random chance (J. Kang, 2009). Moreover, an extensive range of studies have examined various methodological aspects of the IAT, including its reliability (Bosson, William B. Swann, & Pennebaker, 2000; Dasgupta & Greenwald, 2001; Greenwald & Farnham, 2000; Greenwald & Nosek, 2001; J. Kang & Lane, 2010; Nosek, Greenwald, et al., 2007), validity (Greenwald; Greenwald, Poehlman, et al., 2009; Jost et al., 2009), and predictive validity (Blanton et al., 2009; Egloff & Schmukle, 2002; Fazio & Olson, 2003; Greenwald & Krieger, 2006; Greenwald, Poehlman, et al., 2009; McConnell
Generally speaking, this scrutiny has led to the conclusion that the IAT is a methodologically sound instrument. In the words of Kang and Lane (2010), “After a decade of research, we believe that the IAT has demonstrated enough reliability and validity that total denial is implausible” (J. Kang & Lane, 2010, p. 477).

The IAT has been used to assess implicit biases across a range of topics, including gender, weight, sexuality, and religion, among others. Of particular interest to the Kirwan Institute are findings related to race. The popular Black/White IAT analyzes the speed with which participants categorize White and Black faces with positive and negative words. The racial group that individuals most quickly associate with the positive terms reflects a positive implicit bias towards that group. Extensive research has uncovered a pro-White/anti-Black bias in most Americans, regardless of their own racial group (Dovidio, Kawakami, & Gaertner, 2002; Greenwald et al., 1998; Greenwald, Poehlman, et al., 2009; McConnell & Liebold, 2001; Nosek et al., 2002). Moreover, researchers have even documented this bias in children, including those as young as six years old (Baron & Banaji, 2006; Newheiser & Olson, 2012; Rutland et al., 2005).

**DEBIASING**

Given that biases are malleable and can be unlearned, researchers have devoted considerable attention to studying various debiasing techniques in an effort to use this malleability property to counter existing biases. Debiasing is a challenging task that relies on the construction of new mental associations, requiring “intention, attention, and time” (Devine, 1989, p. 16). Banaji and Greenwald use the analogy of a stretched rubber band when discussing how debiasing interventions must be consistently reinforced. They write, “Like stretched rubber bands, the associations modified... likely soon return to their earlier configuration. Such elastic changes can be consequential, but they will require reapplication prior to each occasion on which one wishes them to be in effect” (Banaji & Greenwald, 2013, p. 152). Emphasizing the need for repeated practice and training, others assert these new implicit associations may stabilize over time (Glock & Kovacs, 2013).

Moreover, debiasing is not simply a matter of repressing biased thoughts. Research has indicated that suppressing automatic stereotypes can actually amplify these stereotypes by making them hyper-accessible rather than reducing them (Galinsky & Moskowitz, 2000, 2007; Macrae, Bodenhausen, Milne, & Jetten, 1994).

Several approaches to debiasing have emerged, yielding mixed results. Among those for which research evidence suggests the possibility of successful debiasing outcomes include:

- **Counter-stereotypic training** in which efforts focus on training individuals to develop new associations that contrast with the associations they already hold
Another way to build new associations is to expose people to counter-stereotypic individuals. Much like debiasing agents, these counterstereotypic exemplars possess traits that contrast with the stereotypes typically associated with particular categories, such as male nurses, elderly athletes, or female scientists. (see, e.g., Dasgupta & Asgari, 2004; Dasgupta & Greenwald, 2001; J. Kang & Banaji, 2006)

Intergroup contact generally reduces intergroup prejudice (Peruche & Plant, 2006; Pettigrew, 1997; Pettigrew & Tropp, 2006). Allport stipulates that several key conditions are necessary for positive effects to emerge from intergroup contact, including individuals sharing equal status and common goals, a cooperative rather than competitive environment, and the presence of support from authority figures, laws, or customs (Allport, 1954).

Education efforts aimed at raising awareness about implicit bias can help debias individuals. The criminal justice context has provided several examples of this technique, including the education of judges (J. Kang et al., 2012; Saujani, 2003) and prospective jurors (Bennett, 2010; Roberts, 2012). These education efforts have also been embraced by the health care realm (Hannah & Carpenter-Song, 2013; R. A. Hernandez et al., 2013; Teal et al., 2012).

Having a sense of accountability, that is, “the implicit or explicit expectation that one may be called on to justify one’s beliefs, feelings, and actions to others,” can decrease the influence of bias (T. K. Green & Kalev, 2008; J. Kang et al., 2012; Lerner & Tetlock, 1999, p. 255; Reskin, 2000, 2005).

Taking the perspective of others has shown promise as a debiasing strategy, because considering contrasting viewpoints and recognizing multiple perspectives can reduce automatic biases (Benforado & Hanson, 2008; Galinsky & Moskowitz, 2000; Todd, Bodenhausen, Richeson, & Galinsky, 2011).

Engaging in deliberative processing can help counter implicit biases, particularly during situations in which decision-makers may face time constraints or a weighty cognitive load (Beattie et al., 2013; D. J. Burgess, 2010; J. Kang et al., 2012; Richards-Yellen, 2013). Medical professionals, in particular, are encouraged to constantly self-monitor in an effort to offset implicit biases and stereotypes (Betancourt, 2004; Stone & Moskowitz, 2011).