

WE THINK, THEREFORE YOU ARE

The more I was treated as a woman, the more woman I became. I adapted willy-nilly. If I was assumed to be incompetent at reversing cars, or opening bottles, oddly incompetent I found myself becoming. If a case was thought too heavy for me, inexplicably I found it so myself.

—Jan Morris, a male-to-female transsexual describing her posttransition experiences in her autobiography, *Conundrum* (1987)¹

Suppose a researcher were to tap you on the shoulder and ask you to write down what, according to cultural lore, males and females are like. Would you stare at the researcher blankly and exclaim, "But what can you mean? Every person is a unique, multifaceted, sometimes even contradictory individual, and with such an astonishing range of personality traits within each sex, and across contexts, social class, age, experience, educational level, sexuality, and ethnicity, it would be pointless and meaningless to attempt to pigeonhole such rich complexity and variability into two crude stereotypes"? No. You'd pick up your pencil and start writing.² Take a look at the two lists from such a survey, and you will find yourself reading adjectives that would not look out of place in an eighteenth-century treatise on the different duties of the two sexes. One list would probably feature communal personality traits such as *compassionate, loves children, dependent, interpersonally sensitive, nurturing*. These, you will note, are ideal qualifications for someone who wishes to live to serve the needs of others. On the

other character inventory we would see agentic descriptions like *leader, aggressive, ambitious, analytical, competitive, dominant, independent, and individualistic*. These are the perfect traits for bending the world to your command, and earning a wage for it.³ I don't have to tell you which is the female list and which is the male one: you already know. (These lists, as sociologists Cecilia Ridgeway and Shelley Correll have pointed out, also most closely match stereotypes of "white, middle-class, heterosexual men and women, if anyone.")⁴

Even if you, personally, don't subscribe to these stereotypes, there is a part of your mind that isn't so prissy. Social psychologists are finding that what we can consciously report about ourselves does not tell the whole story.⁵ Stereotypes, as well as attitudes, goals, and identity also appear to exist at an implicit level, and operate "without the encumbrances of awareness, intention, and control," as social psychologists Brian Nosek and Jeffrey Hansen have put it.⁶ The implicit associations of the mind can be thought of as a tangled but highly organized network of connections. They connect representations of objects, people, concepts, feelings, your own self, goals, motives, and behaviors with one another. The strength of each of these connections depends on your past experiences (and also, interestingly, the current context): how often those two objects, say, or that person and that feeling, or that object and a certain behavior have gone together in the past.⁷

So what does the implicit mind automatically associate with women and men? The various tests that social psychologists use to assess implicit associations work from the assumption that if you present your participant with a particular stimulus, then this will rapidly, automatically, and unintentionally activate strongly associated concepts, actions, goals, and so on, more than weakly associated ones. These primed representations become more readily accessible to influence perception and guide behavior.⁸ In one of the most widely used tests, the computer-based Implicit Association Test or IAT (developed by social psychologists Anthony Greenwald, Mahzarin Banaji, and Brian Nosek), participants

must pair categories of words or pictures.⁹ For example, first they might have to pair female names with communal words (like *connected* and *supportive*), and male names with agentic words (like *individualistic* and *competitive*). Participants usually find this easier than the opposite pairing (female names with agentic words, and male names with communal words). The small but significant difference in reaction time this creates is taken as a measure of the stronger automatic and unintended associations between women and communality, and men and agency.¹⁰

You probably have similar associations, regardless of whether you consciously endorse them. The reason for this is that the learning of these associations is also a process that takes place without the need for awareness, intention, and control. The principle behind learning in associative memory is simple: as its name suggests, what is picked up are associations in the environment. Place a woman behind almost every vacuum cleaner being pushed around a carpet and, by Jove, associative memory will pick up the pattern. This certainly has its benefits—it's an effortless and efficient way to learn about the world around you—but it also has its drawbacks. Unlike explicitly held knowledge, where you can be reflective and picky about what you believe, associative memory seems to be fairly indiscriminate in what it takes on board. Most likely, it picks up and responds to cultural patterns in society, media, and advertising, which may well be reinforcing implicit associations you don't consciously endorse. What this means is that if you are a liberal, politically correct sort of person, then chances are you won't very much like your implicit mind's attitudes. Between it and your conscious, reflective self there will be many points of disagreement. Researchers have shown that our implicit representations of social groups are often remarkably reactionary, even when our consciously reported beliefs are modern and progressive.¹¹ As for gender, the automatic associations of the categories male and female are not a few flimsy strands linked to penis and vagina. Measures of implicit associations reveal that men, more than women, are implicitly associated with science, math, career, hier-

your self-concept is active—turns out to be very sensitive to context. While sometimes your active self will be personal and idiosyncratic, at other times the context will bring one of your social identities hurtling toward the active self for use. With a particular social identity in place, it would not be surprising if self-perception became more stereotypic as a result. In line with this idea, priming gender seems to have exactly this effect.¹⁷

In one study, for example, a group of French high school students was asked to rate the truth of stereotypes about gender difference in talent in math and the arts before rating their own abilities in these domains. So, for these students, gender stereotypes were very salient as they rated their own ability. Next, they were asked to report their scores in math and the arts on a very important national standardized test taken about two years earlier. Unlike students in a control condition, those in the stereotype-salient group altered the memory of their own objective achievements to fit the well-known stereotype. The girls remembered doing better than they really had in the arts, while the boys inflated their marks in math. They gave themselves, on average, almost an extra 3 percent on their real score while the girls subtracted the same amount from their actual math score. This might not seem like a large effect, but it's not impossible to imagine two young people considering different occupational paths when, with gender in mind, a boy sees himself as an A student while an equally successful girl thinks she's only a B.¹⁸

If this method of priming gender doesn't seem very subtle, it's because it isn't. Of course that's not to say that it might not provide a useful proxy for the real world. Gender stereotypes are ubiquitous, sometimes even in settings where they shouldn't be. When the Scottish Qualifications Authority recently announced a drive to increase the dismally low numbers of high school girls in subjects like physics, woodworking, and computing, some teachers freely expressed doubt that it was worth the effort. "I think it is much better to realise that there are differences between boys and girls, and ways in which they learn," said a headmaster at a well-

known Edinburgh private school. "Overall, boys choose subjects to suit their learning style, which is more logic based."¹⁹ He was gracious enough to leave his audience to make the inference that girls' preferred learning style is an illogical one, rather than making the point explicitly. But importantly, gender identity can also be primed without the help of openly expressed stereotypes. Have you, for example, ever filled in a question on a form that looks something like this?

- ☐ Male
☐ Female

Even an innocently neutral question of this kind can prime gender. Researchers asked American university students to rate their mathematical and verbal abilities, but beforehand, some students were asked to note down their gender in a short demographics section, and others to mark their ethnicity.²⁰ The simple process of ticking a box had surprising effects. European American women, for example, felt more confident about their verbal skills when gender was salient (consistent with the prevailing belief that females have the edge when it comes to language skills) and rated their math ability lower, compared with when they identified themselves as European American. In contrast, European American men rated their math ability higher when they were thinking of themselves as men (rather than as European Americans), but their verbal ability better when their ethnicity had been made salient.

Even stimuli that are so subtle as to be imperceptible can bring about a change in self-perception. Psychologists Jennifer Steele and Nalini Ambady gave female students a vigilance task, in which they had to indicate with a key press, as quickly as possible, on which side of the computer screen a series of flashes appeared.²¹ These flashes, were, in fact, subliminal primes: words replaced so quickly by a string of Xs that the word itself couldn't be identified. For one group, the words primed "female" (*aunt, doll, earring, flower, girl*, and so on). The other group saw words like

uncle, hammer, suit, cigar, and boy. Then, the volunteers were asked to rate how much pleasure they found in both feminine activities (like writing an essay or taking a literature exam) and masculine tasks (like solving an equation, taking a calculus exam, or computing compound interest). The male-primed group of women rated both types of activity as equally enjoyable. But the female-primed group reported a preference for arts-related activities over math-based ones. The prime "changed women's lens of self-perception," the authors suggest.²²

We are not just influenced by the imperceptible, but also the intangible. The Australian writer Helen Garner noted that one can either "think of people as discrete bubbles floating past each other and sometimes colliding, or . . . see them overlap, seep into each other's lives, penetrate the fabric of each other."²³ Research supports the latter view. The boundary of the self-concept is permeable to other people's conceptions of you (or, somewhat more accurately, your perception of their perception of you). As William James put it, "a man has as many social selves as there are individuals who recognize him and carry an image of him in their mind."²⁴ By way of scientific support for James's idea, Princeton University psychologist Stacey Sinclair and her colleagues have shown in a string of experiments that people socially "tune" their self-evaluations to blend with the opinion of the self held by others. With a particular person in mind, or in anticipation of interacting with them, self-conception adjusts to create a shared reality. This means that when their perception of you is stereotypical, your own mind follows suit. For example, Sinclair manipulated one group of women into thinking that they were about to spend some time with a charmingly sexist man. (Not a woman-hater, but the kind of man who thinks that women deserve to be cherished and protected by men, while being rather less enthusiastic about them being too confident and assertive.) Obliging, the women socially tuned their view of themselves to better match these traditional opinions. They regarded themselves as more stereotypically feminine, compared with another group of women who were expecting

instead to interact with a man with a more modern view of their sex.²⁵ Interestingly, this social tuning only seems to happen when there is some sort of motivation for a good relationship. This suggests that close or powerful others in your life may be especially likely to act as a mirror in which you perceive your own qualities.

These shifts in the self-concept do not just bring about changes in the eye of the self-beholder. They can also change behavior. In her report of kindergarten children, sociologist Bronwyn Davies describes how one little girl, Catherine, reacts when the doll she is playing with is snatched away by a boy. After one failed attempt to retrieve the doll, Catherine strides to the dress-up cupboard and pulls out a man's waistcoat. She puts it on, and "marches out. This time she returns victorious with the dolly under her arm. She immediately takes off the waistcoat and drops it on the floor."²⁶ When adults pull a new active self out of the wardrobe, the change of costume is merely metaphorical. But might it nonetheless, as it did for Catherine, help us better fulfill a particular role or goal? Research suggests that it can.

In a recent series of experiments, Adam Galinsky at Northwestern University and his colleagues showed participants a photograph of someone: a cheerleader, a professor, an elderly man, or an African American man. In each case, some of the volunteers were asked to pretend to actually *be* the person in the photograph and to write about a typical day as that person. Control participants were told to write about a typical day in the person's life from a more dispassionate, third-person (he/she . . .) point of view. (This meant the researchers could see the effects of perspective-taking over and above any effects of priming a stereotype.) The researchers discovered that perspective-taking gave rise to "self-other merging." Asked to rate their own traits after the exercise, those who had imagined themselves as a cheerleader rated themselves as more attractive, gorgeous, and sexy, compared with controls. Those who imagined themselves as professors felt smarter, those who walked in the shoes of the elderly felt weaker and more dependent, and those who had temporarily lived life as an African American man

rated themselves as more aggressive and athletic. Self-perception absorbed the stereotypical qualities of another social group.²⁷

The researchers then went on to show that these changes in the self-concept had an effect on behavior. Galinsky and his colleagues found that pretending to be a professor improved analytic skills compared with controls, while a self-merging with cheerleader traits impaired them. Those who had imagined themselves as an African American man behaved more competitively in a game than those who had briefly imagined themselves to be elderly. The simple, brief experience of imagining oneself as another transformed both self-perception and, through this transformation, behavior. The maxim "fake it till you make it" gains empirical support.

No less remarkable effects on behavior were seen by Stacey Sinclair and her colleagues. You'll recall that women who thought they were about to meet a man with traditional views of women perceived themselves as more feminine than women who expected to meet a man with more modern opinions. In one experiment, Sinclair arranged for her participants to actually interact with this man. (Of course, he was really a stooge, but didn't know what each woman thought he thought about women.) Women who thought he was a benevolent sexist didn't just think themselves more feminine, they also behaved in a more stereotypically feminine way.²⁸ (As a psychologist who has worked for several years in philosophy departments, perhaps this is a good moment to suggest to any colleagues who have found tearoom conversations with me intellectually unsatisfying that they have only their low opinion of psychologists to blame.)

It's not hard to see just how useful and adaptable a dynamic sense of self can be.²⁹ As the pivot through which the social context—which includes the minds of others—alters self-perception, a changing social self can help to ensure that we are wearing the right psychological hat for every situation. As we've begun to see, this change in the self-concept can then have effects for behavior, a phenomenon we'll look at more closely in the chapters that follow.

With the right social identity for the occasion or the companion, this malleability and sensitivity to the social world helps us to fit ourselves into, as well as better perform, our current social role. No doubt the female self and the male self can be as useful as any other social identity in the right circumstances. But flexible, context-sensitive, and useful is not the same as "hardwired." And, when we take a closer look at the gender gap in empathizing, we find that what is being chalked up to hardwiring on closer inspection starts to look more like the sensitive tuning of the self to the expectations lurking in the social context.

justification motive, "whereby people justify and rationalise the way things are, so that existing social arrangements are perceived as fair and legitimate, perhaps even natural and inevitable" (Jost & Hunyady, 2002), p. 119.

27 (Broad & Green, 2009), p. viii.

28 (Drake, 1696), p. 20. I'm grateful to Jacqueline Broad for bringing this quotation to my attention.

29 (Smith, 1998), p. 159.

30 E. L. Thorndike, "Sex in Education," *The Bookman*, XXIII, 213. Quoted in (Hollingworth, 1914), p. 511.

31 (Mill, 1869/1988), p. 22.

32 Cora Castle, "A statistical study of eminent women," *Columbia University contributions in philosophy and psychology*, vol. 22, no. 27 (New York: Columbia University, 1913), pp. vii, 1-90. Quoted in (Shields, 1982), p. 780.

33 (Malebranche, 1997), p. 130. I'm grateful to Jacqueline Broad for alerting me to this hypothesis.

34 See (Russett, 1989).

35 A phrase that originated with (Romanes, 1887/1987), p. 23. See (Russett, 1989), p. 36.

36 (Russett, 1989), p. 37.

37 See discussion in (Kane, 2006).

38 (Kitayama & Cohen, 2007), p. xiii.

39 M. R. Banaji, "Implicit attitudes can be measured," in H. L. Roediger III, J. S. Nairne, I. Neath, & A. Surprenant (eds.), *The nature of remembering: Essays in honor of Robert G. Crowder* (Washington, DC: American Psychological Association, 2001), pp. 117-150. Quoted in (Banaji, Nosek, & Greenwald, 2004), p. 284.

40 (Silverberg, 2006), p. 3.

41 (Grossi, 2008), p. 100.

42 (Fausto-Sterling, 2000), p. 118.

43 (Rivers & Barnett, 2007), para. 4.

44 See (Fine, 2008).

45 Quoted in (Pierce, 2009), para. 8.

46 A point made, for example, by (Bleier, 1984). She suggests that "Paradoxically, it is not our brains or our biology but rather the cultures that our brains have produced that constrain the nearly limitless potentialities for behavioral flexibility provided us by our brains" (p. viii).

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1 (Morris, 1987), p. 140.

2 Sociologists Cecilia Ridgeway and Shelley Correll point out that there is

something curious about how our gender beliefs can be so narrow "since no one ever has the experience of interacting with a concrete person who is just a man or just a woman in a way that is not affected by a host of other attributes such as the person's race or level of education" (Ridgeway & Correll, 2004), p. 513.

3 See (Rudman & Glick, 2008), chapter 4. This book provides a compelling and comprehensive account of the social psychology of gender.

4 (Ridgeway & Correll, 2004), p. 513. Much of the research discussed in this book, it should be acknowledged, is restricted to the white, middle-class, heterosexual wedge of society. But then, it is the disparity between the male and female halves of this privileged group that is most likely to be taken as evidence for the "naturalness" of gender roles.

5 For overview see (Nosek, 2007a).

6 (Nosek & Hansen, 2008), p. 554, references removed.

7 For theoretical discussions, see for example (Gawronski & Bodenhausen, 2006; Smith & DeCoster, 2000; Strack & Deutsch, 2004).

8 For example (Banaji & Hardin, 1996). For brief overview see (Bargh & Williams, 2006).

9 To experience the Implicit Association Test yourself, and find out more about it, visit Harvard University's Project Implicit Web site: <http://implicit.harvard.edu/implicit/>.

10 (Rudman & Kilianski, 2000).

11 Brian Nosek notes that correlations between implicitly measured social attitudes (such as toward minority groups) and self-reported attitudes are especially weak when participants are highly egalitarian university students, whereas in less egalitarian groups the relationships are stronger (Nosek, 2007a). The nature of the relationship between explicit and implicit attitudes and other constructs—to what extent are they distinct?—is still not clear, and subject to debate.

12 For example (Mast, 2004; Nosek et al., 2009; Rudman & Kilianski, 2000).

13 (Dasgupta & Asgari, 2004).

14 For example (Kunda & Spencer, 2003). Or see (Fine, 2006).

15 I was alerted to this quotation, in the context of understanding the self, in an interview with Brian Nosek.

16 See (Wheeler, DeMarree, & Petty, 2007).

17 This is especially predicted by John Turner's self-categorization theory, which is most explicit in distinguishing between personal identity and social identity. While both self-categorization theory and the active-self account (and other similar models, such as the notion of a working self-concept) regard the self as dynamic and context-dependent, self-categorization theory proposes that "the self should not be equated with enduring personality structure" because an infinite number of different social identities could become active, depending

- on the social context (Onorato & Turner, 2004), p. 259. Evidence for self-stereotyping under conditions of gender salience comes, for example, from (Hogg & Turner, 1987; James, 1993).
- 18 (Chatard, Guimond, & Selimbegovic, 2007).
- 19 Quoted in (Horne, 2007).
- 20 (Sinclair, Hardin, & Lowery, 2006).
- 21 (Steele & Ambady, 2006).
- 22 (Steele & Ambady, 2006), p. 434.
- 23 (Garner, 2004), p. 177.
- 24 William James (1890), *The Principles of Psychology*, p. 294. Quoted in p. 529 of (Sinclair, Hardin, & Lowery, 2006).
- 25 (Sinclair, Hardin, & Lowery, 2006; Sinclair et al., 2005; Sinclair & Lun, 2006), p. 529.
- 26 (Davies, 1989), p. 17.
- 27 (Galinsky, Wang, & Ku, 2008).
- 28 (Sinclair et al., 2005).
- 29 For a sociological perspective on this idea, see (Pacchter, 2007).

2. WHY YOU SHOULD COVER YOUR HEAD WITH A PAPER BAG IF YOU HAVE A SECRET YOU DON'T WANT YOUR WIFE TO FIND OUT

- 1 (Brizendine, 2007), p. 161.
- 2 A claim made in the blurb of Brizendine's book.
- 3 (Baron-Cohen, 2003), p. 2.
- 4 The Autism Research Centre was the source of the Empathy Quotient and Systemizing Quotient questionnaires: <http://www.autismresearchcentre.com/tests/default.asp>.
- 5 See (Baron-Cohen, Knickmeyer, & Belmonte, 2005), table 1, p. 821. Sixty percent of men report an S-type brain, compared with 17 percent of women. (Percentages include "extreme" E and S brain types).
- 6 (Schaffer, 2008), entry 3 ("Empathy queens"), para. 5.
- 7 (Eisenberg & Lennon, 1983).
- 8 Quoted in (Schaffer, 2008), entry 3 ("Empathy queens"), para. 8.
- 9 (Davis & Kraus, 1997), p. 162.
- 10 (Ames & Kammrath, 2004), p. 205; (Realo et al., 2003), p. 434.
- 11 (Voracek & Dressler, 2006).
- 12 Both the EQ and the Reading the Mind in the Eyes test, also from Simon Baron-Cohen's lab, ask participants to state their sex before beginning the questionnaire. As will become clear later in the chapter, it's possible that the correlation between the two arises because the salience of gender-related

norms increases both self-reported empathy and empathic performance, to a greater or lesser degree in different participants.

- 13 (Ickes, 2003), p. 172.
- 14 (Levy, 2004), p. 322.
- 15 (Voracek & Dressler, 2006). If you used information about whether someone scored below or above average on the test to try to guess his or her sex you would be correct barely more often than chance.
- 16 These and further details of the PONS and its interpretation, as well as the IPT, are summarized in (Graham & Ickes, 1997). To give you an idea of the size of the gender difference on the PONS, which Graham and Ickes describe as "respectable" (p. 123), the average woman on this test (scoring at the 50th percentile) is equivalent to a slightly superior man (scoring at the 66th percentile for the male population). In their discussion of the greater female advantage for "leaky" channels of communication, they are referring to the work (and term) of R. Rosenthal and B. DePaulo, "Sex differences in eavesdropping on nonverbal cues," *Journal of Personality and Social Psychology* 37 (1979), pp. 273-285.
- 17 (Brizendine, 2007), p. 160.
- 18 This hypothesis again refers to the work of Rosenthal & DePaulo, cited in (Graham & Ickes, 1997).
- 19 (Graham & Ickes, 1997), p. 126.
- 20 (Ickes, 2003), quotations from pp. 125 and 126, respectively.
- 21 (Ickes, Gesn, & Graham, 2000).
- 22 (Ickes, 2003), p. 135.
- 23 (Klein & Hodges, 2001). Men also scored equivalently to women when the sympathy rating was requested *after* the empathic accuracy test.
- 24 (Thomas & Maio, 2008), p. 1173. This effect was only found for an easy-to-read target, not a difficult-to-read target.
- 25 (Koenig & Eagly, 2005), p. 492.
- 26 (Marx & Stapel, 2006c), p. 773.
- 27 (Seeger, Smith, & Mackie, 2009), p. 461.
- 28 (Ryan, David, & Reynolds, 2004). Gilligan's work and critiques summarized here also.
- 29 This claim also found support in (Ryan, David, & Reynolds, 2004), study 1.
- 30 (Ryan, David, & Reynolds, 2004), pp. 253 and 254, respectively, references removed.

3. "BACKWARDS AND IN HIGH HEELS"

- 1 For meta-analysis, see (Voyer, Voyer, & Bryden, 1995).
- 2 (Moore & Johnson, 2008; Quinn & Liben, 2008). It's worth noting that the