

## **BECOMING OUR SELVES**

Daniel has no eyes. Born with an aggressive eye cancer, they were removed before his first birthday. From an early age, Daniel realized that he could sense what objects are around him and where they are by clicking and listening for the echoes. Ever since then, like a bat, he uses echolocation to find his way around the world. It has allowed him to run around his neighborhood freely, climb trees, hike alone into the wilderness, and generally get around well as someone with perfect vision. "I can honestly say that I do not feel blind," he says.

In fact, he never thought of himself as "blind" until he met another boy named Adam at his elementary school. By then, Daniel was already riding bikes, packing his own lunch, and walking to school by himself. Adam, in contrast, had always attended a special school for the blind and had a constant supply of helpers to escort him through the world and guide him through his daily routines.

Daniel was frustrated with Adam's helplessness. He couldn't understand why Adam couldn't do things for himself or join in games on the playground. Even worse, the other kids started to mix Daniel

and Adam up. They were "the blind boys." For the first time, Daniel felt what it was like to have society define him as "blind." And he was shocked and frustrated to discover that society did not expect any more from him than they did from Adam.

He had trouble making sense of it until he found a book by sociologist Robert Scott called *The Making of Blind Men*. In that book, Scott suggests that blindness is socially constructed. From the first powerful paragraph onward, Scott argues that "the various attitudes and patterns of behavior that characterize people who are blind are not inherent in the condition but, rather, are acquired through ordinary process of social learning."

To most people, this sounds shocking and farfetched. How can blindness be "socially constructed"? Blindness seems to be a matter-of-fact physical reality, especially in the case of Daniel, who has no eyes. But Scott doesn't mean to question this physical reality. Instead, he wants to challenge the assumptions that create a social role for blind people as "docile, dependent, melancholy, and helpless." Throughout his research, he meets many people like Daniel who defy these expectations, but finds others who have been conditioned to fit the stereotype. "Blind men are made," Scott declares emphatically, "by the same process of socialization that have made us all."

Scott moves the discussion beyond blindness to point out that we are all "made." Our self-concept is our estimation of how others see us given our culture's core beliefs, expectations, and values. This self-concept in turn shapes how we perceive the world and engage with it. In other words, most of what we take as "reality" is socially constructed, "real-ized" through our unseen, unexamined assumptions about what is right, true, or possible.

Scott reveals three processes through which our realities – such as "blindness" – are real-ized.

1. **Beliefs and expectations:** The first is the process of enculturation through which we learn the basic "common sense" beliefs and values of our culture.

From an early age, people learn a set of stereotypical expectations and beliefs about blind people as "docile, dependent, melancholy, and helpless." Blind people take on these beliefs and expectations as part of their self-concept.

2. **Behaviors and interactions:** Second, these beliefs become guidelines for our behaviors and interactions with others. In this way, even if a blind person has the fortitude to reject the stereotypes of blindness put upon them, they might be denied opportunities for more independence by the expectations of others who do not allow the blind person to take on a job or do other things for themselves.
3. **Structures and institutions:** Third, these beliefs and behaviors are woven into larger institutions and other social structures through which the beliefs and behaviors are reinforced. Institutionalized norms, laws, behaviors, and services shape our beliefs about what is right, true, and possible.

Scott found that blind people were encouraged to attend special schools and follow specific job tracks designed to accommodate their disabilities. They were offered free rides, escorted by hand through their daily activities, and had many of their daily tasks done for them. While these are all well-intentioned services, Scott also noticed that they reinforced the message that "blind people can't do these things." When Scott did the original research for his book in the 1960s, nearly 2/3 of blind American students were not participating in gym class. He worried that by treating blind people as helpless, they were becoming more helpless.

Many studies support this concern. Even rats seem to change their behavior based on what people think of them. In a remarkably

clever experiment, psychologist Bob Rosenthal lied to his research assistants and told them that one group of rats was "smart" and another group "dumb." They were, in fact, the same kind of rats with no differences between them, yet the "smart" rats performed twice as well on the experimental tests as the "dumb" rats. Careful analysis found that the expectations of the experimenters subtly changed the way they behaved toward the rats, and those subtle behaviors made a big difference.

Other studies have found that teacher's expectations of students can raise or lower IQ scores and a study of military trainers found that their expectations can affect how fast a soldier can run. As psychologist Carol Dweck explains, we convey our expectations through very subtle cues, such as how far we stand apart and how much eye contact we make. These subtle behaviors make a difference in how people perform.

While we all understand the power of our own belief on our own behavior, these studies demonstrate that other people's beliefs can also affect us. This link between belief and behavior can become a vicious circle. A teacher's low expectations make a student perform poorly. The poor performance justifies and re-enforces the low expectations, so the student continues to perform poorly, and so on.

Daniel Kish was raised by a mother who refused to let society's expectations of blindness become Daniel's destiny. She let him roam free and challenged him to find his own way to make his way in the world. As a result, Daniel's mastery of echolocation allowed him to "see" and distinguish trees, park benches, and poles. He now enjoys hiking in the woods, bike rides, and walking around town without any assistance or seeing aids.

These abilities are reflected in his brain. Brain scans show that Daniel's visual cortex lights up as he uses echolocation. His mind is actually creating visual imagery from the information he receives through echolocation, so despite not having any eyes, he can see. Recent studies suggest that he actually *sees* with the same visual acuity as an ordinary person sees in their peripheral vision. In other words,

he may not be able to read the words in a book, but he knows the book is there.

The story of Daniel Kish is a fitting opening for this lesson, because it reveals how a trio of forces – beliefs, behaviors, and structures – can shape how we see the world and ourselves. From an early age we are immersed in beliefs, behaviors and structures that tell us how to be a man or a woman, what it means to be "white," "black," or "Asian," and what qualifies as "handsome," "beautiful," or "sexy" among many other ideals and values that will form the backdrop against which we will form our sense of who we are.

### **GENDER: BIOLOGY OR CULTURE?**

In the toy section of a store, you are likely to find an aisle of soft "girly" colors like pink and purple populated with dolls and playhouses. The next aisle has colder colors and sharper edges with guns and cars. Before they can put together a full sentence, most children will know which toys are for boys and which are for girls. Do these different interests of boys and girls reflect innate biological differences, or is the socialization of boys and girls so powerful that it already starts to appear at a very young age?

An issue of *Ladies Home Journal* in 1918 assigned blue to girls and pink to boys. It wasn't until the 1940s that American culture settled into the now familiar and taken-for-granted idea that pink is for girls and blue is for boys. But while the color of the toys is obviously a cultural construction, the boy's affinity for cars and trucks and the girl's affinity for dolls continues to be the subject of wide-spread debate in neuroscience, biology, psychology, and the social sciences.

In 1911, Thorndike suggested that the reason boys like trucks and girls like dolls is that men are more interested in "things and their mechanisms" and women are more interested in "persons and their feelings." Though highly controversial, a meta-study by Su, Rounds, and Armstrong in 2009 that analyzed dozens of studies on the topic found that men and women across multiple cultures see themselves

differently, as "Women reported themselves to be higher in Neuroticism, Agreeableness, Warmth, and Openness to Feelings, whereas men were higher in Assertiveness and Openness to Ideas."

The differences were modest but statistically significant, and they seemed to confirm gender stereotypes. Other studies reveal similar results. Though there is no total scientific consensus, there is a strong contingent of scientists concluding that there are small but significant differences between men and women in their personality traits and interests. Conforming to the expectations of gender stereotypes, on average, women are slightly better than men when it comes to verbal reasoning, feeling, and empathy, while men on average are slightly better at systems thinking and spatial visualization. On average, women are more agreeable while men are more aggressive and assertive. The largest difference is that on average, women are more interested in people while men are more interested in things.

These differences are subtle, and there is a lot of overlap between men and women. If you were to pick a man or woman at random and try to guess if they would be above average in any of these traits, you would only improve your odds very little if you went with the stereotype. But even a small difference can matter a great deal when looking at what roles and careers people choose to pursue; indeed, a small difference in an average can make a big difference at the extremes. These subtle differences might potentially explain why women are so vastly under-represented in STEM fields but make up the majority of nurses and clinical psychologists (due to an interest in people vs. things). They might also explain why women are less well-represented in leadership positions (due, potentially, to men being more aggressive and less agreeable).

Are these differences real and permanent? Are they biological or cultural? The stakes of this debate are high. If these gender differences are real, innate, and unchangeable, then there may be little reason to suspect wide-spread discrimination and bias as the reason behind gender inequality. It might instead be a product of gendered choices and inclinations. Proponents of this position argue that we

already have equal opportunity laws in place and a culture that promotes and champions the freedom to pursue your dreams. They suggest that perhaps the gender gap and apparent inequality is just a product of individual choices.

There are high stakes for men as well. Gender stereotypes that propose that men are more violent, courageous, and strong-willed, along with gender roles that ask men to provide for the family, serve the country, and sacrifice themselves for others while showing no signs of emotion or weakness, lead to many negative outcomes for men. While it is easy to look at the fact that 80% of all political leadership positions and 93% of the Fortune 500 CEOs are men and think that men have all the privilege, we should also consider the effect of gender stereotypes on the vast majority of men. Men's Rights Activists point out that men make up 97% of combat fatalities. They do more dangerous work, making up 93% of all work fatalities. Because they are stereotyped to be less nurturing, they lose custody in 84% of divorces. They also struggle more in school, making up just 43% of college enrollments. The problems start early, as they are nearly twice as likely as girls to repeat kindergarten.

With such high stakes, a constant flurry of articles, blog posts, YouTube videos, and message boards create a highly contentious and polarized cultural space where the origin and value of stereotypes is vehemently argued.

Contrary to what we would expect if these differences were biological and innate, they differ in magnitude across cultures. However, contrary to what we might expect if the differences were cultural, they are more pronounced in cultures where sex roles are more egalitarian and minimized, such as in European and American cultures. In Northern Europe, where gender equality is highest, gender differences in career choice are the most pronounced. Proponents of the biological thesis suggest that this is definitive proof that these differences are innate and not socially constructed.

But there are many critics of these studies. They point out a number of flaws in the studies that replicate gender stereotypes while

offering little evidence that the stereotypes are actually true. For example, many of the most-cited studies ask participants to self-report on their level of empathy or respond hypothetically to prompts such as "I really enjoy caring for people" or "When I read the newspaper, I am drawn to tables of information, such as football league scores or stock market indices." Critics have found that in research situations in which people are reminded of their gender and gender stereotypes, the differences are magnified, but in situations where their gender is minimized the differences go away. A careful review of these studies by scholars like Cordelia Fine have found these self-report studies are unreliable in predicting actual behavior or actual ability, and the content of the questions themselves signal gender stereotypes (men like football and stock markets) that reveal little about how men and women actually think and more about how they have been culturally conditioned.

In short, the studies that attempt to suggest that gender differences are entirely rooted in biology continually come up short, but that is not to say there are not real biological differences. As biologist Anne Fausto-Sterling has summarized the situation, the brain "remains a vast unknown, a perfect medium on which to project, even unwittingly, assumptions about gender." But despite these unwitting assumptions, the cutting-edge research in psychology and neuroscience have demonstrated that there are real sex differences in the brain that should not be overlooked. Ongoing research is focusing less on whether gender is strictly biological or strictly cultural, and instead how biology and culture intersect in the creation of gender, trying to understand gender as a biocultural creation.

### **ARE GENDER STEREOTYPES UNIVERSAL?**

Gender roles and stereotypes are pervasive in all cultures, and while there is some variation, there is also considerable overlap. All over the world and across almost all cultures, men hold more

positions of leadership in economic, political, and religious domains, while women are most often the primary caregivers. Throughout much of human history, women would have been the primary source of sustenance for growing babies through breast feeding, leaving it to the man to do more work outside the home to bring home food. Men tend to be associated with public activities, while women are more associated with domestic activities. These differences usually also entail differences in status and power, so that globally we see pervasive inequality between men and women.

In Nimakot, Papua New Guinea, traditional religious beliefs practiced until the 1980s were centered around the great ancestress Afek. Temples throughout the region marked key places where she literally "gave birth" to the key elements of the culture. Women's reproductive powers were highly revered and feared. Menstrual blood was seen as dangerous and polluting. During their periods, women were required to stay in a small menstrual hut away from the main village, and women were never allowed into the men's house, where the most sacred rituals surrounding the ancestress took place. So while it may appear that women are given a lofty status in light of the culture revolving around an ancestress, in practice women were locked out of positions of sacred and political power, and forced into confinement for three days of every month.

There are a wide range of approaches and opinions on these matters, even within the same culture or religion. Some Muslim women, for example, see the wearing of the *hijab* head-covering as oppressive, refuse to wear it, and encourage other women to give it up as well. But other Muslim women argue that it is their right and choice to wear the *hijab* as an expression of their submission to God, and that it gives them the freedom to move about in public without the leering and objectifying eyes of men. Some of these same Muslim women argue that it is the scantily-clad Instagram model obsessed with her looks, morphing her body through diets, postures, and surgery, who is truly overcome and controlled by the gaze of men.

There is also considerable cultural variation in the total number of genders. The socialization of "men" and "women" starts at a very young age. By the time we are making the wish-list for our fifth birthday, we already take it for granted that there are two distinct categories of children: boys and girls. But a quick review of gender roles and categories around the world demonstrates that many of our ideas about gender are socially constructed and can exist in very different ways in different cultures.

It is commonly assumed that one is just born male or female, and while it is true that there are important biological differences formed at birth and ongoing differences that emerge throughout life, these are not easily put into a simple binary of male and female.

To understand this complexity, anthropologists find it useful to distinguish between sex and gender. Sex refers to an individual's biological traits while gender refers to cultural categories, roles, values, and identities. In short, sex is biological. Gender is cultural.

In India there is a third gender called the Hijra. Hijra are people who were usually born male but live their lives as a third gender, neither male nor female. Some are born intersexed, having both male and female reproductive organs. Texts dating back 4,000 years describe how Hijra were thought to bring luck and fertility. Several Native American cultures have also traditionally recognized a third gender and sometimes ascribed special curing powers to them. The Bugis on the island of Sulawesi recognize five genders. What we call "transgendered men" or "transgendered women" have a ready and identifiable role and place in their society. To these they add a fifth, the Bissu. Bissu are androgynous shamans. They are not merely thought to be gender neutral or non-binary. A better translation is that they are "gender transcendent." They are thought to have special connections to the hidden world of "batin." The Bugis believe that all five genders must live in harmony.

These more complex systems that move beyond the simple binary of male and female may be better suited for the realities of human variation. Over 70 million people worldwide are born

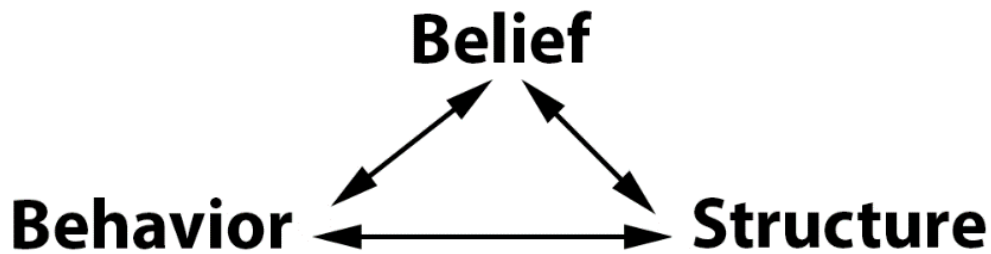
intersexed. They have chromosomes, reproductive organs, or genitalia that are not exclusively male or female. In societies where such variations are not accepted, these individuals are often put through painful gender assignment surgeries that can cause psychological troubles later on if their inner identity fails to match with the identity others ascribe to them based on their biology.

## "MAKING GENDER"

To understand how gender might be socially constructed, we can remove the references to blindness from the example in the opening story and create a sort of "Mad Libs" for the social realization of gender. You could fill in the blanks below with the expectations associated with either gender to create a short summary of how that gender is socially constructed.

- 1. Beliefs and expectations:** From an early age, people learn a set of stereotypical expectations and beliefs about men/women as "\_\_\_\_\_." Men/women take on these beliefs and expectations as part of their self-concept.
- 2. Behaviors and interactions:** Second, these beliefs become guidelines for our behaviors and interactions with others. In this way, even if a man/woman has the fortitude to reject the stereotypes put upon them, they might be denied opportunities for \_\_\_\_\_ by the expectations of others who do not allow the men/women to \_\_\_\_\_.
- 3. Structures and institutions:** Third, these beliefs and behaviors are woven into larger institutions and other social structures through which the beliefs and behaviors are reinforced. Institutionalized norms, laws, behaviors, and services shape our beliefs about what is right, true, and possible.

Together, these three concepts make up a trio of realization, with each element relating to and re-enforcing the others. You could draw the relations between them like this:



In a landmark set of essays called "Making Gender," anthropologist Sherri Ortner explores the relationships between these domains as a way of exploring how gender roles, stereotypes, and relationships might change or get reproduced in our everyday actions. She notes that this involves "looking at and listening to real people doing real things ... and trying to figure out how what they are doing or have done will or will not reconfigure the world they live in." For her, the anthropological project consists of understanding the cultural constraints of the world, as well as the ways in which people actively live among such constraints, sometimes recreating those same constraints, but sometimes changing them.

Consider the first element: beliefs and expectations. Cordelia Fine asks you to imagine that you are part of a study in which the researcher has asked you to write down what males and females are like according to cultural lore. You might resist the idea that people can be stereotyped, but you would have no trouble reproducing the stereotype. "One list would probably feature communal personality traits like compassionate, loves children, dependent, interpersonally sensitive, nurturing ... On the other character inventory we would see agentic descriptions like leader, aggressive, ambitious, analytical, competitive, dominant, independent, and individualistic." She

concludes by noting that you would have no trouble knowing which one matches which gender.

Unfortunately, even if you don't buy into these stereotypes, you can't help but take them into account in forming your own self-concept. They are part of the cultural framework and meaning system upon which we craft our identity and sense of self. Even if we explicitly choose to craft an identity against these stereotypes, we do so in full acknowledgment that we are doing so, and that we may need to be prepared for how the world might receive us. A woman who demonstrates an aggressive leadership style will likely be perceived more negatively than a man with the same approach, while a stay-at-home dad who shows emotion easily may be openly ridiculed for not properly providing for his family. In short, we do not craft our identities in a social vacuum and must account for cultural stereotypes as we navigate the world.

In this way, beliefs and expectations shape the second element; behaviors and interactions. We have probably all experienced ourselves bending our personalities ever so slightly to accommodate a particular situation. If we are around people we think might hold stronger traditional gender stereotypes, we are likely to change our behavior to match their expectations. Controlled studies by Stacy Sinclair in which women are told that they are about to meet with a charming but sexist man led these women to self-assess themselves as more stereotypically feminine.

Other studies prime students with gender stereotypes and then give them moral dilemmas to see how they will respond. For example, in a study by psychologist Michelle Ryan, one group of participants was asked to brainstorm ideas for debating gender stereotypes and another was not. Then they were asked to solve a moral dilemma. Among those who had brainstormed the ideas for debating gender stereotypes, women were twice as likely to respond to the moral dilemma by offering empathy and care-based solutions in line with gender stereotypes.

In other words, whenever the gender stereotype is in mind, people shape their behavior in relation to that stereotype. It is surprisingly easy to bring the stereotype to mind. When researchers at American University added a small checkbox to indicate your gender as male or female to the top of a self-assessment, women started rating their verbal abilities higher and math abilities lower than when the checkbox was not on the form.

Psychologists who study "stereotype threat" call this "priming." It is a technique used in the lab to "prime" research participants with a gender stereotype, role, or identity before doing another task to see how it effects the outcome. But these effects go far beyond the lab, because while the "priming" done in the lab is often very subtle, we live our lives completely immersed in situations that can prime these gender stereotypes. As evidence of this, consider the constant barrage of advertisements we see online, on TV, and in our social media feeds that reproduce gender stereotypes and consider their effect. When researcher Paul Davies showed research participants advertisements of women in beauty commercials or doting over a brownie mix and then asked them to take an exam, he found that women attempted far fewer math problems than they did if they were shown more neutral ads. They also were less likely to aspire to careers in STEM fields after seeing these commercials. Psychologists Jennifer Steele and Nalini Ambady conclude that "our culture creates a situation of repeated priming of stereotypes and their related identities, which eventually help to define a person's long-term attitude towards specific domains."

As a result of the stereotypes and behaviors they influence, we end up creating the third element: structures and institutions. Women who resist the stereotype and pursue STEM fields, attempt to climb corporate ladders, or pursue political success will find fewer and fewer other women alongside them as they move up the ranks. They find themselves in male-dominated institutions that reinforce and reproduce the stereotypes. Despite the progress made over the past 50 years, they may still face discrimination in hiring and promotion,

or they may find that their ideas or opinions are not often accepted, or they may find themselves immersed in a masculine culture where they find it difficult to fit in and be effective.

Meanwhile, in Armenia, women make up about half of computer science majors (vs. 15% in America). Hasmik Gharibyan suggests that this is because Armenians do not expect to have a job they love. Jobs are for financial stability. Joy is to be found in family and friends, not a job. We see a similar pattern in other developing countries, so that contrary to many expectations, those countries with more traditional views of gender have less gender inequality.

As mentioned earlier, many of those who favor a biological explanation take this as evidence that men and women have innately different interests and abilities leading them down different career paths when they have total freedom of movement. However, sociologists Maria Charles and Karen Bradley argue that these differences result from our strong cultural emphasis on individual self-expression. Unlike developing countries, self-expression plays a large role in career choice over practical considerations. Being an anthropology major or an engineering major is as much an identity as it is a career.

In this way, a culture that values self-expression may exaggerate and exacerbate the stereotypes and frameworks that provide the raw material from which people construct their selves. While the impact of stereotypes may seem small in any particular situation, we are never not in a situation, and these effects add up and result in substantially different and gendered behavioral patterns, interests, and worldviews. These behaviors, interests, and worldviews then become a part of the social world that others must navigate, thereby perpetuating the stereotypes.

We do not know yet how this social construction interacts with biological processes in the brain, but as anthropologists, sociologists, psychologists, biologists, and neuroscientists continue their explorations into how gender is made, we will likely see many

important new discoveries in the field demonstrating the complexities of this biocultural creation.

## **RACE AS A BIOCULTURAL CONSTRUCTION**

Most Americans publicly proclaim that they are not racist, but all Americans know the common stereotypes and how they map on to each racial category. The idea that there are "blacks" "whites" and "Asians" goes largely unquestioned. But many anthropologists propose that when we look at the entire global human population, the notion of race is a myth. It is a cultural construction. As biological anthropologist Alan Goodman notes, "what's black in the United States is not what's black in Brazil or what's black in South Africa. What was black in 1940 is different from what is black in 2000." Scientists like Goodman note that if you lined up all the people on the planet in terms of skin color you would see a slow gradation from light skin to dark skin and at no point could you realistically declare the point at which you transition from "black people" to "white people."

How did our skins get their color? Skin color is an adaptation to sun exposure. Populations in very sunny areas along the equator have evolved to produce more melanin, which darkens the skin and protects them from skin disorders as well as neural tube defects that can kill unborn children. Populations in less sunny areas have evolved with less melanin so that their lighter skins can absorb more Vitamin D, which aids in the absorption of calcium, building stronger bones.

When anthropologists argue that race is a myth, they are pointing out that variations in skin color cannot be neatly categorized with other traits so that people can be clearly separated into clear types (races) along the lines created by our cultural concept of race. For example, some populations in the world that have dark skin have curly hair, while others have straight hair. Some are very tall, and some are very short. Humans have a tendency to create categories