

Stereotype Content

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Abstract

Scholars have recently proposed a model that describes and systematically categorizes the content of stereotypes. This *stereotype content model* posits that groups are stereotyped along the dimensions of trait warmth (i.e., likeability and friendliness) and competence (Fiske, Xu, Cuddy, & Glick, 1999). Groups will typically be stereotyped into one of four clusters—low warmth and high competence, high warmth and low competence, high warmth and high competence, and lastly low warmth and low competence. The combination of positively and negatively valenced clusters creates ambivalent or mixed stereotype content that produces paternalistic (high warmth, low competence) or envious (low warmth, high competence) forms of prejudice. The model has generated interesting new results and insights about the nature of stereotypes and their impact on behaviors, including dehumanization.

INTRODUCTION

Understanding the nature of stereotypes has long been a topic of interest to social psychologists (Allport, 1954). Stereotypes can sometimes serve a useful function, creating easy ways for the brain to process a lot of information about people who belong to different groups. But stereotypes can also result in negative outcomes, producing false beliefs about an individual, a community, or even an entire population (Fiske & Neuberg, 1990). Stereotypes are an inescapable part of our psychology and can lead to severe forms of prejudice and discrimination. As a result, researchers have been interested in uncovering the motivations and psychological processes that lead to the formation of stereotypes.

Psychologists at present largely agree that stereotypes consist of highly automatic processes that lead to the categorization of people into social groups (Fiske, Lin, & Neuberg, 1999; Fiske & Neuberg, 1990). Moreover, stereotype *processes* are highly similar and systematic among individuals (Fiske, Cuddy, Glick, & Xu, 2002). More recently, researchers have become interested in the *content* of stereotypes; that is, what characteristics or features comprise a stereotype about a specific group? What are the actual

thoughts and feelings that people have when thinking about or encountering a stereotyped person? For example, what do you think of when you see the words, “slow, helpless, brittle, wise, Florida?” You most likely thought of an elderly person. Stereotype content is defined as the attributes and characteristics that comprise a generated categorization (Fiske *et al.*, 2002).

Understanding the nature of stereotype content also advances our knowledge about stereotype processing *in the brain*. Typically, stereotypes are discussed as a form of social cognition, a way in which we understand the minds of other human beings (Fiske & Taylor, 2008). Stereotypes are viewed as a heuristic—a mental shortcut—that enables us to quickly form impressions of an individual or a group. Identifying a person without using stereotypes relies on different cognitive machinery (Bodenhausen, Macrae, & Sherman, 1999). These opposing cognitive mechanisms provide a dual-process account of the nature of stereotypes. In some models, person perception is described along a continuum, from stereotypes, the initial information about a person, to individualization, information specific to that person involving preferences and personality (Fiske, Xu, *et al.*, 1999).

Traditional social cognition abilities evolved to facilitate social interaction (Caporael, 1997). As such, social cognition enables us to discern which things in the environment are targets of social interaction and the resulting morally and socially normed behavior reserved for other people. This imbues people with a certain “humanness” that depends exclusively on social cognitive processing (Harris & Fiske, 2009). But if stereotypes short-circuit regular social cognitive processes that allow us to perceive a person as human, stereotypes will involuntarily allow for some outgroups and outgroup members to be denied their humanness. In other words, stereotype content will enable our automatic mental processes to dehumanize others—not fully engaging social cognitive abilities that are regularly engaged when interacting with other people.

In the sections that follow, we begin by introducing the foundational research on stereotype content. We then move on to cutting-edge research that integrates social psychology and neuroscience to come up with a more advanced picture of stereotype processes occurring at the level of the brain and behavior. Finally, we discuss empirical evidence supporting the idea that some stereotypes may be dehumanizing, short-circuiting typical social cognitive processes.

FOUNDATIONAL RESEARCH

Before delving into the specifics of stereotype content, a brief history of how this research evolved is necessary. In 1946, social psychologist Solomon Asch published a study that highlighted an important trend in how people form

impressions of others. Asch instructed participants to form an impression of a competent person who had been described as “assured,” “talkative,” “cold,” “ironical,” “inquisitive,” and “persuasive”—all adjectives that described an inherently competent person. In this scenario, most participants described an individual who was not very pleasant to be around:

“A rather snobbish person who feels that his success and intelligence set him apart from the run-of-the-mill individual. Calculating and unsympathetic.”

However when Asch changed the word “cold” in the list to the word “warm,” he created a completely new impression for his participants—the individual was portrayed as a much nicer person:

“A scientist performing experiments and persevering after many setbacks. He is driven by the desire to accomplish something that would be of benefit.”

Strikingly, this drastic change in impression only occurred when the words “warm” and “cold” were interchanged. Switching, for example, “warm” and “cold” to “polite” and “blunt” produced no difference in impressions. Asch discovered that the simple manipulation of the trait dimension warmth readily changed the perception of an individual. His research emphasized the importance of the trait warmth in person perception and its impact on overall impressions of people’s personality.

Asch’s preliminary finding that warmth was a necessary dimension for impression formation only accounted for one dimension of personality, but a person could be sociable and hardworking or sociable and lazy. Because of this fact, researchers believed that impressions of others were most likely multidimensional, representing different evaluative components of an individual’s personality. By presenting lists of adjectives similar to those Asch had used (but much more comprehensive) to participants who sorted them into traits, researchers demonstrated that traits lie along two primary dimensions: intellectual desirability (competence) and social desirability (warmth; Rosenberg, Nelson, & Vivekananthan, 1968). These impression formation studies were crucially important to develop a model of stereotype content.

Also instrumental to the development of stereotype content research was the realization that not all prejudices produce antipathy. That is, prejudice did not have to be rigid and produce a fixed, decisively negative judgment. As the impression formation researchers had already demonstrated, a person could be sociable (a positive trait) but lazy (a negative trait), producing ambivalent judgments. Extending this framework from an individual perspective to a group perspective was essential for the study of stereotypes.

Studies demonstrated that cross-culturally stereotypes were typically comprised of traits associated with competence related attributes (i.e., respect, intelligence) and social related attributes (i.e., empathic, trustworthy; Bales, 1950; Noseworthy & Lott, 1984). Furthermore, these studies demonstrated that there is a functional aspect to the multidimensional qualities of person perception. Sociability reflects the intended goal of the group (to help or to hurt), while competence reflects the means to actualize those goals. Also, consistent with the impression formation research, the relationship between competence and warmth was usually orthogonal.

On the basis of identification of the primary dimensions of person perception in both the impression formation and prejudice literatures, social psychologists uncovered two factors that likely contribute to the formation of mixed or ambivalent stereotypes. The first factor was a group's socioeconomic status, while the second factor was the level of interdependence of the perceiver's group with that group. By informing their study of stereotypes with information and methods from the impression formation literature, researchers posited a novel hypothesis and approach to the study stereotype content. They hypothesized that status affects the perceived competence of the group, and interdependence (cooperative or competitive) affects the perceived warmth of the group. Therefore high-status groups (such as rich people, Jews) are respected and envied because of their perceived competence, but they are not liked, whereas low-status groups (people with disabilities, the elderly) are often disrespected because of their perceived incompetence but liked because they are not perceived as a threat. This produces ambivalent stereotype content that can be clustered into two specific categories: competent but cold, and incompetent but warm (Fiske *et al.*, 2002).

Researchers hypothesized that systematic principles could be applied to the study of stereotype content. Although stereotype research had focused greatly on the systematic processes by which stereotypes were produced, researchers had not thought of stereotype content as something that could also be systematic. And if stereotype content proved to be systematic, then stereotype content could be predicted by the relationship between groups. To first understand the inverse relationship between warmth and competence, researchers had to ensure that real groups were clustering in the predicted directions of competent but cold, and incompetent but warm. To do this, participants were given a survey and asked to rate a list of groups (disabled people, Asians, etc.) based on their competence and warmth. Participants also had to indicate how likely a trait (helpful, hostile, etc.) would be associated with that group. Participants were instructed to make these ratings based on how the groups are viewed by other people in their society, to guard against socially desirability concerns, ensuring that current cultural beliefs were responsible for eliciting responses, not personal biases. The data

showed that the groups fell along a line with a negative slope (inversely correlated) in a competence X warmth two-dimensional space. Thus, a positive stereotype on one dimension (high warmth or high competence) resulted in an unfavorable stereotype on the other dimension (low competence or low warmth; Fiske *et al.*, 2002).

The ambivalent stereotypes thus produce different forms of prejudice. High-warmth and low-competence outgroups produce paternalistic stereotypes, forming an impression of compliant subordinates. Elderly people, the disabled, and the mentally retarded are often categorized into this group. Groups in this cluster are typically perceived as nonthreatening and friendly, evoking a sense of pity. Contrastingly, outgroups that are in the low-warmth and high-competence cluster are stereotyped in a more envious nature, and are typically perceived as cold but successful competitors. Nontraditional women, Jews, and Asians generally fall into this category. Studies additionally confirmed that status predicts the perceived competence of a group, and that competition predicts the perceived warmth of a group, creating these mixed stereotypes (Fiske, Cuddy, & Glick, 2007).

But stereotype content can also be nonambivalent. We typically consider the group we belong to, our ingroup, as being both high in warmth and high in competence. This category is typically reserved for students, Christians, and the middle class (the representative populations from which samples for these studies were collected) and elicits admiration and pride. However, outgroups that are in the low-warmth and low-competence category elicit the emotions disgust and contempt, such as poor people, the homeless, Hispanics, and welfare recipients.

Because stereotype content is linked to emotions, and emotions better predict behavior than beliefs (Talaska, Fiske, & Chaiken, 2008), this indicates that there might also be a systematic pattern of discriminatory behaviors. The behaviors from intergroup affect and stereotypes (BIAS) map framework was developed to explain the stereotyped behaviors produced by the four clusters in the stereotype content model (Cuddy, Fiske, & Glick, 2007). The BIAS model demonstrates that warmth stereotypes elicit *active* behaviors; people will behave in ways that attenuate active harm and harassment, and actively elicit facilitation, helping behaviors. Competence stereotypes however elicit *passive* behaviors; people will attenuate passive harmful behaviors (e.g., neglect) and will elicit passive facilitation efforts (such as associating with the group). Therefore, there are distinct behavioral tendencies toward the four groups in the stereotype content model. Admired groups that are high in warmth and high in competence will lead to both active and passive facilitation behaviors. Groups that are in the disgust category and are both low in warmth and low in competence will elicit both active and passive

harm behaviors. Because these two groups are either perceived as very positive or very negative, the behaviors associated with them follow the same pattern. High-competence and low-warmth stereotypes, the envied groups, will elicit passive facilitation but active harm behaviors. The other mixed stereotype, low-competence and high-warmth pitied groups, will elicit active facilitation but passive harm behaviors.

In conclusion, the stereotype content depends on two universal dimensions of person perception, warmth and competence. These two dimensions create stereotype content that is clustered in one of four cells eliciting specific emotions; low warmth and low competence (low–low) elicit disgust, high warmth and high competence elicit pride, low warmth and high competence elicit envy, and high warmth and low competence elicit pity. Stereotype content need not be purely negative; rather ambivalent stereotypes exist and are predicted by the perceived status and competition of the group.

NEUROSCIENCE AND STEREOTYPE CONTENT

Functional magnetic resonance imaging (fMRI) allows researchers to measure blood flow in the brain, which is associated with brain activity. With this knowledge, researchers are able to correlate social cognition with relevant regions in the brain. The neuroscience research on stereotype content has underscored the importance of the emotions associated with the four clusters of the stereotype content model. Having brain data corresponding to decisions made about individuals in stereotyped groups allows us to gain a more integrative picture of the cognitive mechanisms involved in stereotype content.

The stereotype content model posits that some groups will be viewed more undesirably than others, but that not all groups will necessarily be viewed negatively. Previous research has demonstrated that some outgroups are perceived as less human than ingroups (Bar-Tal, 1989), and the stereotype content model predicts feelings of disgust when thinking about the extreme low-warmth and low-competence groups. Disgust is coincidentally the only emotion predicted by the stereotype content model that can be targeted to nonhuman entities (Harris & Fiske, 2009). Disgust is an emotion that evolved to reject potential contaminants such as poisonous food items but has evolved to encompass aversive events in the moral domain, such as unfair treatment (Chapman, Kim, Susskind, & Anderson, 2009). This suggests that social cognitive mechanisms in the brain may differentially represent these extreme outgroups. Therefore, researchers sought to investigate how people from groups in the low-warmth, low-competence disgust outgroup would be processed in the brain.

Prior studies demonstrate medial prefrontal cortex (MPFC) along with temporal lobe regions including superior temporal sulcus (STS), temporal-parietal junction, anterior temporal pole, together form a brain network that is essential for social cognition (Van Overwalle & Baetens, 2009). This network is active when looking at pictures of other people. However, researchers discovered that all groups except for the low-warmth, low-competence group activated parts of this network, suggesting that social cognitive processes are not being fully engaged when viewing pictures of people in the low–low group, such as drug addicts and the homeless (Harris & Fiske, 2006). This extreme outgroup also elicits more activation in the insula and amygdala—two brain regions that have been implicated with disgust reactions. However, if participants were instructed to individualize the person in the picture (e.g., think about food preferences), then activation in the social cognition network increased for the low–low targets, suggesting that thinking about the person’s preferences elevates the status of a person beyond a category to a unique individual (Harris & Fiske, 2007). This notion is consistent with the Continuum Model of Impression formation, which suggests that people use stereotype content instead of personal characteristics when forming an impression of another person (Fiske & Neuberg, 1990).

In addition, neuroscience research has demonstrated that people are more willing to sacrifice individuals who are low in warmth and competence to save ingroup members (Cikara, Farnsworth, Harris, & Fiske, 2010). The decision to sacrifice another person in this hypothetical scenario is a moral trade-off most people usually will not make. However, when considering sacrificing extreme outgroup to save the ingroup members, the brain responds in a way consistent with making a complex moral trade-off, activating parts of the prefrontal cortex and the anterior cingulate cortex implicated in cognitive control. This reinforces the idea of moral protection when people are perceived as full human beings (Harris & Fiske, 2009).

Research integrating neuroscience and stereotype content has only recently been exploring groups associated with the other emotions in the stereotype content model. One such study demonstrates that participants who increased activation in the insula while viewing high warmth, low competence pity targets experiencing positive events are more willing to harm these targets in a later domain. Individuals with increased activation in the anterior insula (which is a region associated with empathy) in response to positive events are more willing to harm low warmth, high competence envied targets, and are less willing to harm ingroup targets (Cikara & Fiske, 2011). These results suggest that an increased empathic response may lead to a decreased aggressive response to certain stereotyped groups. Future research should continue

to address brain responses to outgroups with different stereotype contents to understand how stereotype content changes social cognitive responses.

Neuroscience research provides an interesting new methodological approach to understanding the nuances of stereotype content and its effect on the brain and behavior. This kind of research can extend our knowledge on the interplay between emotion and social cognitive processes during stereotyping processes, and will allow future researchers to find ways to mitigate the effects of stereotype behavior toward outgroups. Uncovering the nuances between our brain's responses to different types of stereotype content will allow for refined psychological models and will accelerate the progress toward understanding stereotypes.

KEY ISSUES FOR THE FUTURE

Stereotypes have been extensively studied in psychological research, starting with studies that focused almost exclusively on racial and ethnic stereotypes (Katz & Braly, 1935), followed by an interest in gender stereotypes (Ashmore & Del Boca, 1979). The emergence of these trends is not surprising considering the cultural zeitgeist. Recently, however, the movement toward understanding stereotype content has facilitated the understanding that stereotypes take on different forms. It will be critical for future stereotype researchers to investigate beyond the scope of traditionally stereotyped groups to understand the complexities of stereotypes, as has already been evidenced by the study of stereotype content.

Furthermore, although the stereotype content model predicts four emotions associated with each of the four clusters of stereotype content, future research should investigate the role of other emotions in stereotype content. There is already research that suggests that secondary emotions—emotions that are reserved for people, such as admiration and contempt—are more easily associated with ingroup members rather than outgroup members (Leyens *et al.*, 2001, 2003). Moreover, studies have demonstrated that strong identification with an ingroup leads to negative behavioral tendencies toward an outgroup as measured by threat-based emotions such as anger and contempt (Mackie, Devos, & Smith, 2000). Pursuit of these two avenues of research will be informative for understanding stereotype content as they enhance and broaden the scope of stereotype research. However, a new conceptualization may be in order for advancement and innovation of the field. Here, we discuss stereotype research in the context of what the aforementioned stereotype content research has gleaned, which could redefine how we view stereotypes. We first describe social perception and categorization along a continuum, and then discuss how people categorize outgroups as *infrahuman*—that is, less than human. Under these frameworks, we propose that stereotypes not

only short-circuit social cognitive processes, but result in dehumanization of everyday outgroup targets.

FROM CATEGORY, TO OBJECT, TO OUTGROUP

There are several paths through which individuals can use social cognitive processes to make judgments about others. The first is using a category-based approach through a schema—an organized network of concepts and their attributes, connected through associative links with other attributes. Schemas provide a framework for processing information in the world, and Asch's (1946) study demonstrated how individuals might be using schemas to represent the image of the mean, cold person versus the nice, warm person. Using a schema to interpret information about an unknown person allows the individual to form a quick impression, initiating an automatic affective response. This can be a useful mental heuristic as it allows perceivers to quickly extract useful categorical information about the person, such as age, race, and gender (Fiske, 1998). Schemas are at the root of stereotype processes as they provide easily accessible information about a person during person perception or impression formation. In fact, many founding fathers of social psychology informed our understanding of schemas. Asch's research (1946) is a cornerstone for the investigation of how traits can serve to categorize an individual, and Allport's (1954) seminal prejudice research suggests that stereotypes arise from social categorization. Tajfel (1969) delineates how using trait dimensions simplify categorizing people into groups, and that these kinds of subjective classifications (i.e., "he is lazy") would inescapably lead to comparative judgments.

The opposite of this cognitive approach has been described as individualized processing, in which the person is not treated as a mere example or a trait, but has unique attributes that distinguish him or her (Fiske & Pavelchak, 1986). In essence, many salient traits interact to create a unique individual. Rather than thinking categorically of the person, one will recall all of that person's corresponding attributes that together make the person unique (Fiske, Neuberg, Beattie & Milberg, 1987). That personalized social cognitive processing takes longer than stereotyping. In addition, individuals have to be motivated to engage in this processing, and have access to additional individualized information about the person (Fiske, Lin, *et al.*, 1999).

Because individuals can use either social cognitive method, Fiske and Neuberg (1990) proposed a continuum model of person perception. Just like the title suggests, the model proposes that person perception falls along a continuum between these two social cognitive processes, with one extreme being categorical and the other personalizing. The perceiver's

motivations or personal relevance determines whether the perceiver shifts from a category-based impression to a more personal impression by focusing attention to the attributes of the target. Similarly, Brewer (1988) proposed a dual process model that hypothesized information processing as bottom-up and category based, or top-down and person based. Both of these methods access differing knowledge structures; one is vague and uses categories, while the other is more specific and holds the person at its core.

There has long been the notion that perceivers can form category-based or individual-based judgments using different social cognitive machinery. Traditionally, this machinery has been considered *social cognition* instead of simply *cognition*. For instance, it is possible to view a table, and not engage social cognitive machinery. It is also possible to think about the mind of a table—a social cognitive task—but not use social cognitive brain machinery to do so (Harris & Fiske, 2008). There is not a simple explanation to this phenomenon, but social psychological research has investigated the role of stereotyped judgments (Macrae, & Bodenhausen, 2000) on cognitive processing. Laboratory studies demonstrate that stereotypes serve a functional role preserving cognitive processing resources (Macrae, Milne, & Bodenhausen, 1994). This supports the idea that stereotyping indeed is a heuristic or shortcut, but it does not activate full person-centered social cognitive processing. Stated differently, *stereotypes*, even positive ones, may be *dehumanizing*.

The dehumanization literature in social psychology implicitly supports this revised notion of stereotyping. The process by which we categorize people into negative social groups leads to bad consequences. This concept was first tagged delegitimization (Bar-Tal, 1989) and describes how categorizing a group into a negative social category denies that group the normal moral protections of an ingroup. Moreover, it allows for the active moral exclusion of these negative groups, which in turn makes the outgroup fall outside the boundary of widely accepted moral values and considerations (Opatow, 2010). Importantly, this does not only occur during conflicts, but can occur in response to the tendency for ingroups to see themselves as superior to the outgroup—a feeling that has come to be known as ethnocentrism. Furthermore, outgroups are not seen as sharing the same qualities as members of the ingroup. The labels that categorize social groups permit perceivers to see them as possessing different “essences” than those shared by the ingroup (Rothbart & Taylor, 1992). The ease with which ingroups perceive certain qualities to belong to their group allows for a less desirable essence to characterize outgroups, and in fact these outgroups are perceived as having less human—*infrahuman*—characteristics (Leyens *et al.*, 2000). More recent work has used the term dehumanization to describe the denial of human characteristics to outgroups (Haslam, 2006).

Dehumanization has also been linked to the phenomenon described earlier, where the social cognition brain network is not as responsive to low–low, disgusting targets (Harris & Fiske, 2006). In these cases, a perceiver’s social cognitive brain network becomes completely disengaged, perhaps due to the peculiar effects of disgust. Dehumanization can also occur in less extreme cases and with stereotype content that is associated with more human emotions, suggesting different levels of stereotyping and differential engagement of social cognitive processes. However, the concept of dehumanization should be viewed as a spectrum, not just in the extreme.

CONCLUSION

In sum, social psychological research has demonstrated that stereotypes lead to categorization of outgroups, which deny uniquely human qualities and moral protections to the outgroup. fMRI studies have looked at stereotype content in the brain, demonstrating that extreme low–low outgroups that elicit an emotion not unique to humans are differentially processed within the social cognitive brain network. The targets in these extreme outgroups automatically engage negative stereotypes, which may short-circuit our ability to infer the mental states of others, think about them as individuals, and even ascribe them full humanity. Because of this, stereotypes—especially about extreme outgroups—might prohibit humans from engaging personalizing social cognitive processes toward other human beings.

Under this new framework, stereotypes can be seen as dehumanizing—denial of an individual’s human uniqueness. While not all stereotypes will lead to the extreme cases described, stereotypes engage cognitive processes that are automatic. These processes may deny a target full personalized social cognitive processing. Using shortcuts and heuristics when we think about stereotyped groups may be advantageous because it enables a quick snapshot of what the target may be like—but this replaces the full variety of their humanity obtained through social cognitive resources dedicated to processing an individual. Future research will continue to address this question using established frameworks, integrating neuroscience approaches (e.g., brain imaging) in order to discover the social cognitive mechanisms underlying stereotype content.

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FURTHER READING

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- Fiske, S. T., & Taylor, S. E. (2008). *Social cognition: From brains to culture*. New York, NY: McGraw-Hill.

BEATRICE H. CAPESTANY SHORT BIOGRAPHY

Beatrice H. Capestany: Graduate student, Department of Psychology and Neuroscience, Duke University. Ms. Capestany graduated from Vassar College in 2009, with a BA in Neuroscience and Behavior. She is currently studying as a graduate student with Dr. Lasana Harris in the Psychology & Neuroscience Department at Duke University. She is interested in the social cognitive mechanisms that lead to stereotyping behaviors, studying topics such as dehumanization, legal decision making, and morality. Taking a social neuroscience approach, she designs social psychological paradigms with functional neuroimaging.

LASANA T. HARRIS SHORT BIOGRAPHY

Lasana T. Harris: Assistant Professor, Department of Psychology and Neuroscience, and the Center for Cognitive Neuroscience, Duke University. Dr. Harris received his BS in Psychology from Howard University in 2000 and his MA and PhD degrees in Psychology from Princeton University in 2006 and 2007, respectively. He then spent three years as a postdoctoral researcher at New York University. Research in his laboratory takes an interdisciplinary approach to understanding social cognition, that is, how we figure out what someone else is thinking. Recent research suggests that this basic human ability is fungible and can be extended to agents that do not have minds, resulting in anthropomorphism, or withheld from human beings with minds, resulting in dehumanized perception. Social cognition is necessary for social interaction, and anthropomorphism and dehumanized perception represent boundary conditions for this important phenomenon.

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