ARTICLE

Metaphor in intergroup relations

Mark H. White II | Mark J. Landau

University of Kansas

Correspondence
Mark H. White II, Department of Psychology,
University of Kansas, Lawrence, Kansas, 1415
Jayhawk Blvd. Room 426, Lawrence KS,
66045-7556, United States of America.
Email: markhwhiteii@ku.edu

Abstract
Belonging to groups and relating to other groups are central parts of
our lives, but they confront us with abstract ideas (e.g., *identity* and
power) and nebulous feelings. To make sense of it all, people rely on
conceptual metaphors: cognitive tools that ground abstractions in
dissimilar, more concrete ideas that are easier to grasp. We review
some common metaphors that people use in intergroup contexts—
metaphors that draw on knowledge of such familiar experiences
as physical cleansing and warmth sensations. We review evidence
that these metaphors are not mere figures of speech, but have a
systematic and practically important influence on intergroup atti-
tudes and behavior. Most of this work shows that reliance on
metaphor contributes to prejudice, stereotyping, and discrimination,
sometimes without the person's awareness. Yet we consider the
hopeful possibility that citizens, politicians, and researchers can
harness the power of metaphor to promote intergroup harmony
and peace.

1 | INTRODUCTION

Intergroup relations are dauntingly complex and difficult to understand. Many urgent questions lack straightforward
answers: Is it moral to redistribute wealth among unequal groups? Is it practical for the United States to take in
refugees—and if so, how many? Are undocumented immigrants hurting the economy? Why do police
disproportionally fatally injure Black men? People have strong feelings about particular groups, how groups should
interact, and how society should be organized; but they are often at a loss to explain precisely why.

To make sense of it all, people regularly reach for metaphors rooted in concrete concepts that are easier to grasp.
Metaphors help people understand abstract concepts like *power*, *morality*, *diversity*, and *aggression*, and they build on
commonplace knowledge about a wide range of familiar experiences, including vehicle driving, bodily movements,
plants, and machinery. They are communicated in everyday conversation, news reports, campaign speeches, school
textbooks, and other outlets. For example, one hears about groups "rising up," intergroup conflict "reaching a boiling
point," a sense of "core" identity, and activists "fighting the battle" for civil rights.

Metaphors may aid understanding, but they are not guaranteed to produce accurate perceptions or useful infer-
ences about the appropriate course of action. As we discuss shortly, metaphors direct attention to select elements of
a stimulus and push others to the periphery of awareness. When people habitually rely on a metaphor to reason and
make judgments, they may come to believe that it depicts what something really is. They take their metaphor-based

beliefs to be literal, straightforward reflections of social reality. In this way, metaphor use can breed persistent misconceptions and guide policies that exacerbate prejudice and intergroup conflict.

These considerations suggest that it is both theoretically and practically important to identify the metaphors that shape people's intergroup attitudes. At a theoretical level, this would help elucidate the cognitive mechanisms underlying prejudice, stereotyping, and discrimination. At a practical level, interventions might be designed to relax reliance on certain metaphors, or replace them with more socially constructive alternatives, with the goal of improving intergroup relations.

This article starts to detail such an account. Our presentation is necessarily incomplete. People rely on numerous metaphors to represent intergroup relations, and we cannot consider them all. Instead, we focus on some metaphors that researchers are beginning to investigate experimentally. We review evidence that metaphoric thinking has systematic effects on intergroup emotions and attitudes. Most of this work implicates metaphors in negative biases and stereotyping, but we conclude on a hopeful note by considering metaphor's potential to promote peace.

We begin with Conceptual Metaphor Theory as an organizing framework. It posits that metaphor, traditionally dismissed as a mere figure of speech, is a cognitive tool that people can use to understand abstractions in terms of superficially dissimilar, more concrete concepts (Kövecses, 2010; Lakoff & Johnson, 1980). Some terminology is useful: A *target* is a concept that is abstract, complex, or otherwise difficult to represent in its own terms. In the intergroup domain, some important targets are *identity*, *belonging*, *fairness*, *power*, and *harmony*. A *source* is a relatively more concrete concept used to understand a target. Metaphor supports understanding by creating a *mapping*—a set of systematic associations between features of the target and analogous features of the source. The mapping is partial, meaning that select features of the target are made salient while other features are downplayed or inhibited. When a mapping is accessible, people can draw on their source knowledge as a "template" for representing and reasoning about the target, even though the two concepts are superficially unrelated.

To illustrate these terms, consider the phrase "a *flood of immigrants* is coming into our country." In this metaphor, *immigration* is the target, *flood* is the source, and the mapping between them highlights and downplays select target features. People know, for example, that floods are typically hard to control, damaging, and strike abruptly without concern for victims' well-being. The *flood* metaphor transfers that knowledge, portraying immigrants as overwhelming the host country's government, arriving suddenly in excessive numbers, and threatening to *dilute* or *drown out* the local identity. Metaphors also guide reasoning about the appropriate course of action. For example, if immigrants are a flood, then it seems prudent to create a *barrier* to block their *flow*—perhaps Donald Trump's "great, great wall on our southern border," which won't allow people to "pour into our country" (Lozano-Reich, 2016; Trump, 2016).

A metaphor's source often refers to bodily experiences, such as walking, eating, and pain sensations. How can we understand metaphor's significance in the context of research on embodied cognition (e.g., Gibbs, 2006; Niedenthal, Barsalou, Winkielman, Krauth-Gruber, & Ric, 2005)? First, it is important to recognize common ground: Metaphor studies support the notion that meanings people give to abstract social concepts are bound up with sensory, motor, and physiological interactions with the physical environment (Johnson, 1987). What makes metaphor unique is that it transfers the schematic knowledge of a bodily source to represent analogous elements of the target. For example, people can apply a well-learned script for goal-directed walking to represent a relationship's "starting point" (beginning), "destination" (purpose), and "obstacles" (difficulties). It is not necessary, therefore, for a metaphor's source to be embodied; it may instead refer to schematic knowledge of a social event or activity, such as building construction, courtroom proceedings, or the rules of competitive sports.

Influential perspectives on embodied cognition, by contrast, tend to emphasize processes that take place "within," rather than "between" concepts. For example, Barsalou's (1999) *perceptual symbols systems* posits that concepts contain representations of bodily states that customarily occur during interactions with relevant stimuli and contexts. As a result, thinking about these concepts *simulates*, or reactivates, associated bodily states. For example, thinking about *bowling* can simulate a tactile representation of a bowling ball's smooth surface, even if you're not currently holding one. However interesting, this simulation process is unlike metaphor use in that you're not applying schematic knowledge of smooth surfaces to grasp the abstract concept of *bowling*. These are theoretical points, but they have very real

consequences. Metaphor's unique power to map dissimilar concepts is what makes it both an attractive tool for understanding and a potential source of harmful bias.

The basic tenets of Conceptual Metaphor Theory are supported in a large body of experimental evidence. In numerous studies conducted across the globe, researchers have shown that activated metaphors systematically influence how people make sense of their social world (Landau, Meier, & Keefer, 2010; Landau, Meier, & Robinson, 2014). Even subtle cues can bring metaphors to mind, producing source-consistent effects on person perception (Meier, Scholer, & Fincher-Kiefer, 2014), memory (Crawford, 2014), decision making (Lee & Schwarz, 2014), and attitude change (Ottati & Renstrom, 2010), to name just a few processes studied. One such cue is exposure to metaphoric language or imagery in public discourse, whether that be in the form of an online news story, advertisement, or corporate logo (Landau & Keefer, 2014).

We start to examine what this research reveals about metaphor's role in intergroup phenomena. We organize our review around some prominent source concepts, considering some familiar ideas that people apply to give form to their group-relevant attitudes and behaviors.

2 | VERTICALITY

One of the most basic (i.e., conventional, culturally widespread) metaphors maps positive and negative valence onto vertical space: *Up* is good, powerful, morally righteous, and healthy; *down* is bad, powerless, and disgraceful (Schnall, 2014). This metaphor informs several social-cognitive processes. For example, people are quicker to react to positive (negative) words and images when they are presented high (low) on a computer screen (Damjanovic & Santiago, 2016; Meier & Robinson, 2004). They show metaphor-consistent biases in memory, remembering positive (negative) images as appearing higher (lower) than they actually appeared (Crawford, Margolies, Drake, & Murphy, 2006). And they associate God, divinity, and morality with *up* and sinful or immoral stimuli with *down* (Frimer & Sinclair, 2016; Meier, Hauser, Robinson, Friesen & Schjeldahl, 2007; Meier, Sellbom & Wygant, 2007).

In the intergroup context, studies implicate this metaphor in judgments of groups and their members. For example, people are quicker to identify powerful (powerless) groups presented at high (low) positions (Lu et al., 2015; Schubert, 2005; Zanolie et al., 2012), and they perceive targets who appear high up to be more powerful (Meier, Hauser, et al., 2007). When people viewed an organizational hierarchy diagram with a long vertical line between managers and employees, they perceived managers as more dominant and higher in status; a long horizontal line, in contrast, did not have this effect (Giessner & Schubert, 2007). Power judgments reciprocally influence verticality perceptions: Participants told about a powerful (vs. weak) manager drew that manager higher up on a workplace diagram. Other studies show that individuals high in interpersonal dominance are particularly attuned to vertical space (Moeller, Robinson, & Zabelina, 2008; Robinson, Zabelina, Ode, & Moeller, 2008).

Verticality metaphors are expressed in common expressions linking status to *social ladders*. Phrases like *moving up*, *hitting a glass ceiling*, and *bottom rung* are common not only in everyday talk but also scholarly discourse in social psychology (e.g., Kraus, Tan, & Tannenbaum, 2013). This metaphor is expressed in experimental procedures used to capture respondents' intuitions about social class. Adler, Epel, Castellazzo, and Ickovics (2000) measured subjective socioeconomic status—how people perceive their own class status—by having participants place themselves on a picture of a ladder. Those who placed themselves high atop the ladder had better health, less negative affect, less chronic stress, and more perceived personal control than those who saw themselves on lower rungs. Similar measures predict a wide swath of theoretically relevant variables (Kraus et al., 2013). This predictive validity shows that verticality metaphors are not mere figures of speech, but meaningfully capture people's conceptions of social class.

Like the social ladder, social dominance orientation (Sidanius & Pratto, 1999) relies explicitly on verticality metaphors. Consider items like: "It's probably a good thing that certain groups are at the *top* and others are at the *bottom*," and "Groups at the *bottom* should not have to stay in their place" (Ho et al., 2015; emphasis added). In a closer look at this metaphor's significance, we (White & Landau, 2016) found that socially dominant individuals prefer vertical

representations of groups (e.g., visual hierarchies) to alternative representations (e.g., networks). They also derogate powerless groups when those groups are depicted as "low" in society (using a vertical metaphor), but not when the same groups are depicted as "marginalized" (using a center vs. periphery metaphor).

3 | ORGANISM

Beginning with the Ancient Greeks, society is regularly understood metaphorically as a biological *organism* (Levine, 1995). This metaphor highlights the notion that society *evolves* and *matures* like a plant or animal species. Social Darwinism is based on this metaphor, as it argues that societies, nations, classes, and ethnicities are akin to species that are subject to natural selection (Claeys, 2000; Fracchia & Lewontin, 1999). Let's see how this metaphor has been applied to specific groups and then to society as a whole.

3.1 | Groups are organisms

The organism metaphor has been used to justify prejudice and inequality (Fracchia & Lewontin, 1999, 2005; Perry et al., 2014). If certain groups of people are worse off in society, the metaphor implies, it is not because of exploitation or discrimination—it is because these groups are not the *fit* organisms. In biology, fitness refers to the ability of species to survive and reproduce; metaphorically, groups' "fitness" has been variously tied to their moral character, intelligence, skill, or productivity in a capitalist marketplace. It should then be no surprise that eugenicists' hierarchies of the fitness of races mirrored the dominant prejudices of the time (Leonard, 2005).

Theorists like Herbert Spencer and Thomas Malthus believed that this "evolution" represented progress (Fracchia & Lewontin, 1999). This implies that helping those who are disadvantaged in society is morally wrong and harmful for the human species, because it ensures that those groups who are unfit live on in society. Darwin himself warned of the "degeneration of a domestic race," because the least fit members of society (e.g., the poor and racial minorities) bred so much, while the more virtuous and fit people start families later in life (Claeys, 2000). This supports strict laissez-faire policies, because government intervention represents a dangerous artificial selection from, in Spencer's words, "political meddlers" who are "breaking the fundamental law of social life," by which he means natural selection (Stewart, 2011, p. 395; see also Leonard, 2005, 2009).

The *evolution* metaphor derived from the general *groups are organisms* metaphor justifies the stereotypes, prejudices, and inequities in society because it paints disadvantaged groups as socially unfit people who do not contribute to human flourishing. Thus, they do not deserve help, because this would only derail the "natural progress" of "social evolution." While this metaphor has decreased in popularity since the end of World War II, it is likely people still implicitly rely on it when thinking about disadvantaged groups in society.

3.2 | Society is an organism

The metaphor *society is an organism* implies that society can *fall ill* from group influence. In the early 1900s, public discourse likened people with mental disabilities or those with "poor character" to harmful microbes in the "body" of society (O'Brien, 1999), while Jewish and Japanese people in the United States and Germany have been likened to plagues, cancers, viruses, and tumors that harm the metaphoric national body (O'Brien, 2010). In a detailed analysis of national discourse, O'Brien (2003) showed that immigrant groups were often explicitly likened to harmful contaminants that invaded society's body and made it sick or bloated. For instance, assimilation was often described as "digestion" and "absorption." This metaphor justifies prejudice as an expression of the national *immune system* that neutralizes contaminating pollutants.

This metaphor continues to influence Americans' immigration attitudes. Landau, Sullivan, and Greenberg (2009) led one group of participants to be concerned about the invasion of airborne bacteria into their own bodies. In a

separate manipulation, participants read either metaphoric expressions comparing America to a body (e.g., "growth spurt") or literal paraphrases (e.g., "period of innovation").

As predicted, heightening participants' concerns with bodily contamination increased aversion to immigration if they were additionally primed to view their country as a body. In contrast, contamination threat, although generally aversive, did not influence immigration attitudes when the nation was framed without a metaphor. For those participants in the non-metaphoric framing condition, there was no meaningful relation between protecting their own body from foreign elements and the abstract issue of immigration. But when a bodily-metaphoric framing led some participants to map those concepts, they transferred their bodily contamination concerns to make immigration judgments.

4 | CLEANLINESS

Morality is an abstract concept, and people struggle to articulate why they believe something is moral or immoral despite having strong intuitions (Haidt, 2001). Using metaphor, people conceptualize morality in terms of experiences with physical dirt, cleanliness, and contamination, among other sources.

Disgust and avoidance of dirty stimuli have an evolutionary benefit of protecting people from dangerous pathogens. But people feel disgust in response to people, actions, and ideas that are not *physically* dirty or contaminating. This is because they construe cleanliness in broader, more figurative terms than those suggested by the evolutionary perspective. In this construal, something is "dirty" if it is outside of, or otherwise threatens, a system of order (Douglas, 1966). Because norms, values, and other societal constructs act as systems of moral order, people are disgusted by social stimuli that threaten to undermine those constructs.

Supporting this theorizing is evidence that experiences with physical dirt and moral judgments affect each other in metaphor-consistent ways (Zhong & House, 2014). For example, recalling one's own unethical acts increases desire to physically cleanse (Lee & Schwarz, 2010), and increasing people's perceptions of their own physical cleanliness increased ratings of their personal moral character (Zhong & Liljenquist, 2006).

Many of the prejudices social psychologists study are toward groups perceived to violate social norms, values, and morals (Crandall, Ferguson, & Bahns, 2013); cleanliness concepts play a significant role in these prejudices (Hodson & Dhont, 2015). Cottrell and Neuberg (2005) demonstrate that specific prejudicial emotions felt toward a group map onto the perceived threat that the group poses. They use metaphoric language of dirt and messiness to argue that people feel disgust toward groups that represent "contamination" to the in-group, whether it is endangering the physical health or the values of the group. They measured specific emotional reactions (e.g., anger and pity) to various groups (e.g., Mexican-Americans and Native Americans) and found that gay men had the highest disgust ratings, the highest perceived threat to health, and second highest perceived threat to values.

Other studies of homophobia reveal similar effects. Participants induced to dwell on a disgusting event showed increased implicit bias against gays and lesbians, whereas those induced to feel anger did not show these effects (Dasgupta, DeSteno, Williams, & Hunsinger, 2009); individuals chronically sensitive to feeling disgust hold negative implicit associations with gays and lesbians relative to heterosexuals (Inbar, Pizarro, Knobe, & Bloom, 2009); people who believed gays and lesbians "directly oppose the values of people like me" and "advocate values that are morally inferior" felt more disgust toward them, which predicted disagreement with gay rights (Cottrell, Richards, & Nichols, 2010).

Disgust also contributes to ethnic and racial prejudice by means of metaphor. Interpersonal disgust sensitivity (e.g., not wanting to sit in a seat that's still warm from a stranger) predicts prejudice towards immigrants, foreign ethnic groups, and deviant low-status groups (Hodson & Costello, 2007). This was mediated by right wing authoritarianism (Altemeyer, 1996), a scale that uses metaphoric language about pathogens to describe deviant groups—for example: "Our country will be *destroyed* someday if we do not smash the perversions *eating away* at our moral *fiber* and traditional beliefs" (emphasis added). People see these deviant groups in metaphoric terms as dirty pathogens that will contaminate and infect the cleanliness of "our" value systems.

Hodson et al. (2013) developed an "intergroup disgust sensitivity scale" that taps into these metaphoric associations (e.g., "After interacting with another ethnic group, I typically desire more contact with my own ethnic group to 'undo' any ill effects from intergroup contact," p. 199). Ethnic groups *dirty up* one's life space, and interacting with the ingroup *cleanses* it. People who score higher on this scale also report more germ aversion, higher sensitivity to feeling disgust, and greater prejudice against a wide variety of social groups that represent deviations from traditional American values and morals (e.g., Muslims, foreigners, homosexuals, immigrants, Blacks, poor people, and drug users).

In another study on immigration attitudes (Faulkner, Schaller, Park, & Duncan, 2004), participants learned about a (hypothetical) African outgroup "Krasneans" trying to immigrate to the participants' country. Individual differences in perceived vulnerability to disease (e.g., "I dislike wearing used clothes because you don't know what the past person who wore it was like") predicted beliefs that this group should not be allowed to immigrate and perceptions of Krasneans as less friendly, likable, and trustworthy. Variations in perceived disease vulnerability also correlate with anti-fat and anti-elderly prejudices (Duncan & Schaller, 2009; Park, Schaller, & Crandall, 2007).

5 | ANIMALS

Prejudice is often paired with *dehumanization*—viewing outgroups as less than fully human and therefore ineligible for the care and respect normally accorded to fellow humans. Worldwide, animal metaphors pervade representations of outgroups in language, images, and cultural symbols (Haslam, Loughnan, & Sun, 2011). For example: During World War II, Nazi propaganda portrayed European Jews as disease-carrying rats, while the Japanese portrayed Americans as bloodthirsty eagles mauling innocent Japanese civilians; during the 1970s and 1980s, *The Black Panther* newspaper depicted police and other authority figures as anthropomorphic swine; in 2015, Ben Carson, then a leading presidential candidate, compared refugees seeking entrance to the U.S. to "a rabid dog running around your neighborhood" (McCaskill, 2015). Across cultures men talk about women using a vocabulary borrowed from ornithology: as *chicks*, *birds*, *geese*, and *hens* who can be *flighty*, *broody*, or *feather-brained* (not to mention *bunnies*, *kittens*, and so forth; Kövecses, 2005).

Maass, Suitner, and Arcuri (2014) propose some reasons why animal metaphors exert such a hold on people's imagination. For one, they make it easier to view outgroup members as homogenous. Most people have simple, stereotyped conceptions of animal species. We can sum up the disposition of all sharks, for instance, with a few adjectives. Equating a social category to an animal species—like "lawyers are sharks"—makes members of that category seem "all alike." Also, animal metaphors provide *vivid* labels that communicate negative feelings in stark, compact, and memorable terms. Certain critters elicit visceral aversion, and animal metaphors transfer this aversion to social groups, intensifying group attitudes. Accordingly, describing groups as animals (versus a literal description) led perceivers to attribute more stereotypic traits to group members (Maass et al., 2014). Related studies show that different dehumanizing metaphors have specific effects on group-based trait attributions. In one study (Loughnan, Haslam, & Kashima, 2009), participants led to believe that a novel group was like an animal viewed members of that group as low in traits that distinguish humans from animals (e.g., humble and rude); but when a group was described as robotic, participants viewed its members as low in traits that distinguish humans from inanimate objects (e.g., friendly and aggressive).

Animal metaphors also enable prejudice and discrimination. Once outgroup members have been reduced to animals who do not deserve moral consideration, people—including children—report greater prejudice toward outgroups (Costello & Hodson, 2014), and perpetrators feel less inhibited about harming them (Staub, 1989). After all, it is easier to hurt or kill rats, bugs, and monkeys than fellow human beings. Historical analyses show that animal metaphors in media representations and political rhetoric—such as comparisons of Tutsies to cockroaches infesting Rwandan society—played a decisive role in fomenting violence and exclusion of the targeted group from society (Capozza & Volpato, 2004; Kellow & Steeves, 1998; Steuter & Wills, 2010). Converging experimental evidence reveals that people were more likely to administer a higher intensity of shock to punish people described in animal

terms (e.g., "They are an animalistic, rotten bunch") than people described in human or neutral terms (Bandura, Underwood, & Fromson, 1975).

Furthermore, animal metaphors assuage people's worry over past discrimination. We rarely second-guess our aversive reaction to some animals (e.g., one might whack an icky spider with a newspaper without compunction). By regarding outgroup members as subhuman and therefore less deserving of moral consideration, people can avoid feeling guilty for causing that group undeserved harm. Supporting studies show that people made to feel collectively responsible for their ingroup's mass killing of an outgroup viewed members of that outgroup as less human (Castano & Giner-Sorolla, 2006).

War enemies are not the only outgroups that are dehumanized to justify outgroup harm. White Americans have historically equated Black Americans to monkeys and apes. Goff, Eberhardt, Williams, and Jackson (2008) proposed that, even if White Americans are not consciously aware of this association, they have learned it from their surrounding culture. In one study, White Americans were more likely to hold the opinion that violence against a Black target was justified if they had been primed with ape-related words beneath their conscious awareness.

The two consequences of animal metaphors just discussed can combine to create a vicious cycle of intergroup conflict: Dehumanization facilitates negative treatment of outgroup members that is justified by further dehumanizing the victims.

It is worth noting that although animal metaphors are generally perceived as being offensive and dehumanizing, this is not always the case. Some animals (e.g., owls) and contexts (e.g., intragroup and joking tone) allow these metaphors to be perceived as inoffensive and even endearing (Haslam et al., 2011).

Other dehumanizing metaphors compare outgroup members to inanimate objects instead of animals. As such, they express a broader tendency to *objectify*—too think about and treat an individual more like an object or a commodity than a person. For example, observers may reduce workers to "cogs" in a corporate machine (Haslam, 2006). Mapping *human* onto *object* serves to deny that outgroup members possess the psychological characteristics that make them fully human, such as a unique point of view and a complex emotional life.

6 | LIGHT AND DARK

Humans are diurnal creatures who function effectively in daylight but ineffectively at nighttime (Tolaas, 1991). Early in development, we learn that brightness helps us to navigate our surroundings and connect with supportive relationship partners. Eventually, we apply *light* and *dark* concepts to represent positive and negative aspects of the social world, respectively. Language is rife with phrases like *bright days*, *dark outlook*, and *shady business deal*. The same metaphor is expressed in religious imagery and popular media portrayals of heroes and villains (Meier et al., 2014).

The *light* metaphor causally influences group attitudes. Compared to sports teams in lighter uniforms, teams in darker uniforms are perceived to be more malevolent, and they are more likely to be called by game officials for penalties (Frank & Gilovich, 1988).

It comes as no surprise that this metaphor figures in racial prejudice. We know that implicit evaluations of dark-skinned individuals are often negative (Fazio & Olson, 2003), sometimes even among African Americans (Greenwald, McGhee, & Schwartz, 1998). People are faster to recognize stereotypical Caucasian names and faces when they are paired with positive words and stereotypical African-American names and faces when they are paired with negative words (Greenwald et al., 1998). Although such evaluations have a host of causes (e.g., exposure to media portrayals), they stem in part from a metaphoric association between brightness and valence. In one study, the effect just mentioned was attenuated after controlling for people's tendency to associate the colors white and black with positive and negative valence, respectively (Smith-McLallen, Johnson, Dovidio, & Pearson, 2006). In a related study, Ronquillo et al. (2007) examined activation in the amygdala, an area of the brain that activates when people are exposed to potential threats. Participants had greater amygdala activation when shown pictures of darker versus lighter skinned Caucasians, demonstrating a neurological connection between affect and brightness.

7 | TEMPERATURE

The most widely used operationalization of prejudice—the "feeling thermometer" (Nelson, 2008)—operates on a metaphor that compares liking to physical warmth and disliking to coldness. Some versions wear the *temperature* metaphor on their sleeve, presenting respondents with a picture of a thermometer complete with degree markings (Alwin, 1997). This is no mere abstraction concocted by researchers: Most people find it intuitive to report feeling *warm* or *cold* toward a group, and their responses predict a wide range of intergroup behaviors (Talaska, Fiske, & Chaiken, 2008).

The *temperature* metaphor informs theory as well as measurement. According to the Stereotype Content Model, people evaluate groups along two primary dimensions (Cuddy, Fiske, & Glick, 2008). One is *status*: Is a group perceived as relatively powerful and competent in society? The other is *warmth*: Groups seen as cooperative and likeable are *warm*; those seen as competitive and harmful are *cold*. Relevant scales reproduce the *temperature* metaphor by asking respondents to rate groups' "warmth." These evaluations predict specific emotional responses. For example, groups that are stereotyped as warm but incompetent (e.g., the elderly) elicit pity and sympathy, whereas groups perceived as low in warmth but high in competence (e.g., the rich) elicit envy and jealousy.

Further evidence for the *temperature* metaphor's significance comes from studies showing that sensations of physical warmth affect intergroup attitudes in a metaphor-consistent manner. Participants holding a warm (vs. cold) object displayed less implicit bias against African-Americans (Breines, 2012). Warmth sensations also led participants to make more situational attributions for outgroup members' negative behavior, suggesting that metaphor shapes cognitive outcomes of prejudice as well as implicit evaluations.

8 | GAMES

Competitive games have winners and losers. They are zero-sum—if one player wins, the other necessarily loses. When the Miami Heat won Game 7 of the 2013 NBA Finals, it necessarily meant the San Antonio Spurs lost; and when Garry Kasparov won one of the best chess games ever played, it necessarily meant Veselin Topalov was the loser.

People perceive intergroup competition as zero-sum (Jackman, 1994), making *games* seem like an apt metaphor for intergroup relations more generally. Perceived decreases in anti-Black bias predict perceived increases of anti-White bias in society, but only for Whites (Norton & Sommers, 2011). This effect is most pronounced for Whites who endorse social inequality, has been demonstrated with novel groups, and has been shown to apply to consequential policies like affirmative action (Eibach & Keegan, 2006). Zero-sum beliefs about intergroup relations predict greater support for inequality, negative attitudes toward immigration, and various ethnic prejudices (Esses, Dovidio, Jackson, & Armstrong, 2001). While sometimes groups may be literally competing over scarce resources, more often groups pose symbolic threats (that are not zero-sum) to the values or social identities of other groups (Mukherjee, Molina, & Adams, 2012, 2013).

One of the most prominent metaphors in contemporary intergroup discourse is that of the *race card* (Lee & Morin, 2009). This is used in response to when historically disadvantaged groups in society claim that they have been the victims of prejudice and discrimination. For instance, when President Barack Obama suggested that some of the criticism levied against him as president is due to his race, conservatives were quick to claim that Obama was simply *playing* the race card (Lucas, 2015).

Saying that someone is "playing the race card" is a way to discredit their claim of being victims of discrimination as not a genuine attempt to address inequality, but instead a cynical ploy to capitalize on the widespread anti-racist norms for the so-called victim's own personal gain. The card metaphor "connotes a strategic *gambit* that one deploys to *win a game*, rather than an honest and organic attempt to advance discussion" (Schraub, 2016, p. 285, emphasis added). If you are playing a game against someone and they deploy a cheap, unfair, and illegitimate tactic, you do not need to take their move seriously. You can simply claim that it is cheating. There is no reason to argue about

why someone would collect $500 for passing "Go" in *Monopoly*—players are supposed to take $200 and those are simply the rules. Therefore, a key mapping to this metaphor is that one's claim that they were victims of prejudice or discrimination is perceived as wholesale illegitimate *before* ever examining the evidence the victim presents (Schraub, 2016). Few people have the requisite knowledge to fully understand a society's racial history, so the race card becomes a useful source concept for people to discredit claims of racism.

Framing intergroup relations as competitive games implies that there is a necessary tension between groups, which may exacerbate prejudices. This may be a problem for social psychologists when they rely on creating in-lab analogues for real-world intergroup phenomena. For example, they often involve participants in games such as the ultimatum game or the prisoner's dilemma (e.g., Baxter, 1973; Cederblom & Diers, 1970; Eibach & Keegan, 2006; Heider & Skowronski, 2007; Kubota, Li, Bar-David, Banaji, & Phelps, 2013; Silvestre, Sarlet, Huart, & Dardenne, 2016; Sibley, Senn, & Epanchin, 1968). It is possible that explicitly instructing participants to play "games" may prime a competitive mentality that could exacerbate intergroup prejudices; however, if people chronically perceive intergroup relations as competitions, perhaps games *are* intuitive analogues.

9 | METAPHORS FOR PREJUDICE REDUCTION

The theory and research reviewed thus far points to metaphor as a significant source of prejudice and intergroup conflict. Does this mean that, to reduce prejudice, we should avoid metaphors altogether? Ultimately, this may be an impossible goal. Metaphor is central to human cognition, and it enables people to understand and communicate about society. A more reasonable goal is to harness metaphors for prosocial uses.

One such strategy is to use metaphor to gain a more vivid, workable understanding of *diversity*, an otherwise nebulous notion. Groups in a society can be seen as a *fruit salad*, *mosaic*, or *tapestry*, where all the component parts keep their distinct qualities but complement one another. These metaphors downplay the competitiveness found in the *game* metaphor. We recently found that people who value diversity like these metaphors and believe they capture how diversity works in America (Hakim, Landau, & White, 2016). We urge researchers to be creative in challenging the pervasive metaphors that we take for granted—such that intergroup relations are competitive games—and investigate how replacing them with more prosocial metaphors could reduce prejudice and increase intergroup harmony.

Metaphors can also help people appreciate historical realities. Consider how Coates (2014) discusses the United States' collective attitude toward the long history of the oppression of Black people in the United States: "Now we have half-stepped away from our long centuries of despoilment, promising, 'Never again.' But still we are haunted. It is as though we have run up a *credit-card bill* and, having pledged to *charge* no more, remain befuddled that the *balance* does not disappear" (emphases added). Coates relies on the metaphor that *society is a ledger* to make this point: The White exploitation of Black lives has created a *debt*. An important mapping in this metaphor is that, although Whites have promised not to create any more debt by engaging in any more exploitation, debt does not simply disappear once one stops spending. One must eventually *pay* the debt back. Researchers might leverage this metaphor to promote positive intergroup behaviors.

This possibility connects with the notion of collective guilt, which people experience when they perceive their group as responsible for unjustly harming another group, even if they were personally not present or directly involved with the harm (Ferguson & Branscombe, 2014). When people feel collective guilt, they are more likely to feel and behave positively toward the harmed outgroup members (Ferguson & Branscombe, 2014; Wohl, Branscombe, & Klar, 2006). For example, a field experiment by Doosje, Branscombe, Spears, and Manstead (1998) found that inducing collective guilt about Dutch colonial history led Dutch participants to support more reparations for Indonesia.

Nevertheless, collective guilt is a difficult emotion to evoke in people, who use several strategies to avoid this aversive feeling (e.g., denying group responsibility and distancing oneself from their group's harm doing). Framing society as a ledger frames complex intergroup relations in a concrete, simple way: If you owe someone a debt, you

should feel guilty and even the ledger. Future research should examine whether framing intergroup harm as a debt increases support for reparations.

Another strategy is to "repurpose" metaphors that normally exacerbate intergroup hostilities to reduce them. For example, we discussed how seeing certain groups as dirt or disease is linked to seeing groups as immoral and norm violators. But there is also an egalitarian, anti-prejudice norm in contemporary United States (Crandall & Eshleman, 2003), which means prejudice itself can be seen as physical grime or pollution. In May of 2016, Barack Obama signed a bill into law removing words like "Negro," "Oriental," and "Eskimo" from all Federal laws. *The Root* covered this story with the headline that says these words will be "*scrubbed* from all federal laws" (Helm, 2016, emphasis added), and the author relates this to how Confederate symbols are being "swept into the dustbin of history." Similarly, David Petraeus, former U.S. general and CIA director, wrote of Donald Trump's proposal to ban all Muslims from entering the country: "[These ideas] are *toxic*, and, indeed, *non-biodegradable*—a kind of *poison* that, once released into our *body politic*, is not easily expunged" (Petraeus, 2016, emphasis added). In each of these examples, a message is prompting observers to apply a familiar schema for dirt and cleanliness to construe intergroup relations, but in a way that conduces toward peace.

10 | CONCLUSION

Intergroup relations are difficult to understand with complete certainty or great detail. Based on Conceptual Metaphor Theory, we proposed that, to represent and reason about intergroup relations, people routinely use metaphors that map the structure of group-relevant concepts (e.g., *power*) onto schematic knowledge of familiar concrete concepts, despite their surface-level differences. We reviewed several lines of research demonstrating metaphoric influences on a range of intergroup outcomes. Our review is not a comprehensive list or typology of metaphors in intergroup relations; instead, we hope that this review convinces those that research prejudice, stereotyping, discrimination, intergroup relations, and social issues to appreciate metaphor's significance in language, thought, and other cultural symbol systems by which people everywhere grapple with group life.

REFERENCES

Adler, N. E., Epel, E. S., Castellazzo, G., & Ickovics, J. R. (2000). Relationship of subjective and objective social status with psychological functioning: Preliminary data in healthy white women. *Health Psychology*, *19*(6), 586–592. DOI: 10.1037//0278-6133.19.6.586

Altemeyer, B. (1996). *The authoritarian specter*. Cambridge, MA: Harvard University Press.

Alwin, D. F. (1997). Feeling thermometers versus 7-point scales: Which are better? *Sociological Methods & Research*, *25*(3), 318–340. DOI: 10.1177/0049124197025003003

Bandura, A., Underwood, B., & Fromson, M. E. (1975). Disinhibition of aggression through diffusion of responsibility and dehumanization of victims. *Journal of Research in Personality*, *9*(4), 253–269. DOI: 10.1016/0092-6566(75)90001-X

Barsalou, L. (1999). Perceptual symbol systems. *Behavioral and Brain Sciences*, *22*(2), 577–660. DOI: 10.1017/S0140525X99002149

Baxter, G. W. Jr. (1973). Prejudiced liberals? Race and information effects in a two-person game. *Journal of Conflict Resolution*, *17*(1), 131–161. DOI: 10.1177/002200277301700107

Breines, J. (2012). Adjusting the thermometer of race relations: Physical warmth reduces bias (Doctoral dissertation). Retrieved from http://escholarship.org/uc/item/3sw4v2f9

Capozza, D., & Volpato, C. (2004). *Le intuizioni psicosociali di Hitler: Un'analisi del Mein Kampf [Hitler's psychosocial intuitions: An analysis of the Mein Kampf]*. Bologna, Italia: Pàtron Editore.

Castano, E., & Giner-Sorolla, R. (2006). Not quite human: Infrahumanization in response to collective responsibility for intergroup killing. *Journal of Personality and Social Psychology*, *90*(5), 804–818. DOI: 10.1037/0022-3514.90.5.804

Cederblom, D., & Diers, C. J. (1970). Effects of race and strategy in the prisoner's dillemma. *The Journal of Social Psychology*, *81*(2), 275–276. DOI: 10.1080/00224545.1970.9922453

Claeys, G. (2000). The "survival of the fittest" and the origins of social Darwinism. *Journal of the History of Ideas*, *61*(2), 223–240. DOI: 10.1353/jhi.2000.0014

Coates, T. (2014). The case for reparations. Retrieved from http://www.theatlantic.com/magazine/archive/2014/06/the-case-for-reparations/361631/

Costello, K., & Hodson, G. (2014). Explaining dehumanization among children: The interspecies model of prejudice. *British Journal of Social Psychology*, *53*(1), 175–197. DOI: 10.1111/bjso.12016

Cottrell, C. A., & Neuberg, S. L. (2005). Different emotional reactions to different groups: A sociofunctional threat-based approach to "prejudice". *Journal of Personality and Social Psychology*, *88*(5), 770–789. DOI: 10.1037/0022-3514.88.5.770

Cottrell, C. A., Richards, D. A. R., & Nichols, A. L. (2010). Predicting policy attitudes from general prejudice versus specific intergroup emotions. *Journal of Experimental Social Psychology*, *46*(2), 247–254. DOI: 10.1016/j.jesp.2009.10.008

Crandall, C. S., & Eshleman, A. (2003). A justification-suppression model of the expression and experience of prejudice. *Psychological Bulletin*, *129*(3), 414–446. DOI: 10.1037/0033-2909.129.3.414

Crandall, C. S., Ferguson, M. A., & Bahns, A. J. (2013). When we see prejudice: The normative window and social change. In C. Stangor, & C. Stangor (Eds.), *Stereotyping and prejudice* (pp. 53–69). New York, NY: Psychology Press.

Crawford, L. E. (2014). The role of conceptual metaphor in memory. In M. Landau, M. Robinson, & B. Meier (Eds.), *The power of metaphor: Examining its influence on social life* (pp. 65–83). Washington, DC: APA Press.

Crawford, L. E., Margolies, S. M., Drake, J. T., & Murphy, M. E. (2006). Affect biases memory of location: Evidence for the spatial representation of affect. *Cognition and Emotion*, *20*(8), 1153–1169. DOI: 10.1080/02699930500347794

Cuddy, A. J., Fiske, S. T., & Glick, P. (2008). Warmth and competence as universal dimensions of social perception: The stereotype content model and the BIAS map. In M. P. Zanna (Ed.), *Advances in experimental social psychology* (Vol. 40). (pp. 61–149). San Diego: Academic Press.

Damjanovic, L., & Santiago, J. (2016). Contrasting vertical and horizontal representations of affect in emotional visual search. *Psychonomic Bulletin & Review*, *23*(1), 62–73. DOI: 10.3758/s13423-015-0884-6

Dasgupta, N., DeSteno, D., Williams, L. A., & Hunsinger, M. (2009). Fanning the flames of prejudice: The influence of specific incidental emotions on implicit prejudice. *Emotion*, *9*(4), 585–591. DOI: 10.1037/a0015961

Doosje, B., Branscombe, N. R., Spears, R., & Manstead, A. S. R. (1998). Guilty by association: When one's group has a negative history. *Journal of Personality and Social Psychology*, *75*(4), 872–886. DOI: 10.1037/0022-3514.75.4.872

Douglas, M. (1966). *Purity and danger: An analysis of concepts of pollution and taboo*. London, UK: Routledge.

Duncan, L. A., & Schaller, M. (2009). Prejudicial attitudes toward older adults may be exaggerated when people feel vulnerable to infectious disease: Evidence and implications. *Analyses of Social Issues and Public Policy*, *9*(1), 97–115. DOI: 10.1111/j.1530-2415.2009.01188.x

Eibach, R., & Keegan, T. (2006). Free at last? Social dominance, loss aversion, and white and black Americans' different assessments of racial progress. *Journal of Personality and Social Psychology*, *90*(3), 453–467. DOI:10.1037/0022-3514.90.3.453.

Esses, V. M., Dovidio, J. F., Jackson, L. M., & Armstrong, T. L. (2001). The immigration dilemma: The role of perceived group competition, ethnic prejudice, and national identity. *Journal of Social Issues*, *57*(3), 389–412. DOI: 10.1111/0022-4537.00220

Faulkner, J., Schaller, M., Park, J. H., & Duncan, L. A. (2004). Evolved disease-avoidance mechanisms and contemporary xenophobic attitudes. *Group Processes & Intergroup Relations*, *7*(4), 333–353. DOI: 10.1177/1368430204046142

Fazio, R. H., & Olson, M. A. (2003). Implicit measures in social cognition research: Their meaning and uses. *Journal of Personality and Social Psychology*, *54*, 297–327. DOI: 10.1146/annurev.psych.54.101601.145225

Ferguson, M. A., & Branscombe, N. R. (2014). The social psychology of collective guilt. In C. von Scheve, & M. Salmela (Eds.), *Collective emotions: Perspectives from psychology, philosophy, and sociology* (pp. 251–265). Oxford, UK: Oxford University Press.

Fracchia, J., & Lewontin, R. C. (1999). Does culture evolve? *History and Theory*, *38*(4), 52–78. DOI: 10.1111/0018-2656.00104

Fracchia, J., & Lewontin, R. C. (2005). The price of metaphor. *History and Theory*, *44*(1), 14–29. DOI: 10.1111/j.1468-2303.2005.00305.x

Frank, M. G., & Gilovich, T. (1988). The dark side of self- and social perception: Black uniforms and aggression in professional sports. *Journal of Personality and Social Psychology*, *54*(1), 74–85. DOI: 10.1037/0022-3514.54.1.74

Frimer, J. A., & Sinclair, L. (2016). Moral heroes look up and to the right. *Personality and Social Psychology Bulletin*, *42*(3), 400–410. DOI: 10.1177/0146167215626707

Gibbs, R. (2006). *Embodiment and cognitive science*. New York, NY: Cambridge University Press.

Giessner, S. R., & Schubert, T. W. (2007). High in the hierarchy: How vertical location and judgments of leaders' power are interrelated. *Organizational Behavior and Human Decision Processes*, *104*(1), 30–44. DOI: 10.1016/j.obhdp.2006.10.001

Goff, P. A., Eberhardt, J. L., Williams, M. J., & Jackson, M. C. (2008). Not yet human: Implicit knowledge, historical dehumanization, and contemporary consequences. *Journal of Personality and Social Psychology*, *94*(2), 292–306. DOI: 10.1037/0022-3514.94.2.292

Greenwald, A. G., McGhee, D. E., & Schwartz, J. L. K. (1998). Measuring individual differences in implicit cognition: The implicit association test. *Journal of Personality and Social Psychology*, *74*(6), 1464–1480. DOI: 10.1037/0022-3514.74.6.1464

Haidt, J. (2001). The emotional dog and its rational tail: A social intuitionist approach to moral judgment. *Psychological Review*, *108*(4), 814–834. DOI: 10.1037//0033-295X.108.4.814

Hakim, N., Landau, M. J., & White, M. H. II (2016). *Using metaphor to conceive and justify diversity*. Manuscript in prep: University of Kansas.

Haslam, N. (2006). Dehumanization: An integrative review. *Personality and Social Psychology Review*, *10*(3), 252–264. DOI: 10.1207/s15327957pspr1003_4

Haslam, N., Loughnan, S., & Sun, P. (2011). Beastly: What makes animal metaphors offensive? *Journal of Language and Social Psychology*, *30*(3), 311–325. DOI: 10.1177/0261927X11407168

Heider, J. D., & Skowronski, J. J. (2007). Improving the predictive validity of the implicit association test. *North American Journal of Psychology*, *9*(1), 53–76.

Helm, A. B. (2016, May 22). 'Negro,' 'Oriental,' and 'Indian' to be scrubbed from all federal laws. Retrieved from http://www.theroot.com/articles/news/2016/05/_negro_oriental_and_indian_to_be_scrubbed_from_all_federal_laws/

Ho, A. K., Sidanius, J., Kreily, N., Sheehy-Skeffington, J., Pratto, F., Henkel, K. E., ... Stewart, A. L. (2015). The anature of social dominance orientation: Theorizing and measuring preference for intergroup inequality using the new SDO$_7$ scale. *Journal of Personality and Social Psychology*, *109*(6), 1003–1028. DOI: 10.1037/pspi0000033

Hodson, G., & Costello, K. (2007). Interpersonal disgust, ideological orientations, and dehumanization as predictors of intergroup attitudes. *Psychological Science*, *18*(8), 691–698. DOI: 10.1111/j.1467-9280.2007.01962.x

Hodson, G., & Dhont, K. (2015). The person-based nature of prejudice: Individual difference predictors of intergroup negativity. *European Review of Social Psychology*, *26*(1), 1–42. DOI: 10.1080/10463283.2015.1070018

Hodson, G., Choma, B. L., Boisvert, J., Hafer, C. L., MacInnis, C. C., & Costello, K. (2013). The role of intergroup disgust in predicting negative outgroup evaluations. *Journal of Experimental Social Psychology*, *49*(2), 195–205. DOI: 10.1016/j.jesp.2012.11.002

Inbar, Y., Pizarro, D. A., Knobe, J., & Bloom, P. (2009). Disgust sensitivity predicts intuitive disapproval of gays. *Emotion*, *9*(3), 435–439. DOI: 10.1037/a0015960

Jackman, M. R. (1994). *The velvet glove: Paternalism and conflict in gender, class, and race relations*. Berkeley, CA: University of California Press.

Johnson, M. (1987). *The body in the mind: The bodily basis of meaning, imagination, and reason*. Chicago, IL: University of Chicago Press.

Kellow, C. L., & Steeves, H. L. (1998). The role of radio in the Rwandan genocide. *Journal of Communication*, *48*(3), 107–128. DOI: 10.1111/j.1460-2466.1998.tb02762.x

Kövecses, Z. (2005). *Metaphor in culture: Universality and variation*. New York, NY: Cambridge University Press.

Kövecses, Z. (2010). *Metaphor: A practical introduction*. New York, NY: Oxford University Press.

Kraus, M. W., Tan, J. J. X., & Tannenbaum, M. B. (2013). The social ladder: A rank-based perspective on social class. *Psychological Inquiry*, *24*(2), 81–96. DOI: 10.1080/1047840X.2013.778803

Kubota, J. T., Li, J., Bar-David, E., Banaji, M. R., & Phelps, E. A. (2013). The price of racial bias: Intergroup negotations in the ultimatum game. *Psychological Science*, *24*(12), 2498–2504. DOI: 10.1177/0956797613496435

Lakoff, G., & Johnson, M. (1980). *Metaphors we live by*. Chicago, IL: University of Chicago Press.

Landau, M. J., & Keefer, L. A. (2014). This is like that: Metaphors in public discourse shape attitudes. *Social and Personality Psychology Compass*, *8*(8), 463–473. DOI: 10.1111/spc3.12125

Landau, M. J., Sullivan, D., & Greenberg, J. (2009). Evidence that self-relevant motives and metaphoric framing interact to influence political and social attitudes. *Psychological Science*, *20*(11), 1421–1427. DOI: 10.1111/j.1467-9280.2009.02462.x

Landau, M. J., Meier, B. P., & Keefer, L. A. (2010). A metaphor-enriched social cognition. *Psychological Bulletin*, *136*(6), 1045–1067.

Landau, M. J., Meier, B. P., & Robinson, M. (2014). *The power of metaphor: Examining its influence on social life*. Washington, DC: APA Press.

Lee, R., & Morin, A. (2009). Using the 2008 presidential election to think about "playing the race card". *Communication Studies*, *60*(4), 376–391. DOI: 10.1080/10510970903109979

Lee, S. W. S., & Schwarz, N. (2010). Dirty hands and dirty mouths: Embodiment of the moral-purity metaphor is specific to the motor modality involved in moral transgression. *Psychological Science*, *21*(10), 1423–1425. DOI: 10.1177/0956797610382788

Lee, S. W. S., & Schwarz, N. (2014). Metaphor in judgment and decision making. In M. Landau, M. Robinson, & B. Meier (Eds.), *The power of metaphor: Examining its influence on social life* (pp. 85–108). Washington, DC: APA Press.

Leonard, T. C. (2005). Mistaking eugenics for social. Darwinism: Why eugenics is missing from the history of American economics. *History of Political Economy*, *37*(1), 200–233. DOI: 10.1215/00182702-37-Suppl_1-200

Levine, D. N. (1995). The organism metaphor in sociology. *Social Research*, *62*(2), 239–265.

Loughnan, S., Haslam, N., & Kashima, Y. (2009). Understanding the relationship between attributed-based and metaphor-based dehumanization. *Group Processes & Intergroup Relations*, *12*(6), 747–762. DOI: 10.1177/1368430209347726

Lozano-Reich, N. M. (2016, March 9). How America got 'Trumped'. Retrieved from http://www.huffingtonpost.com/nina-m-lozanoreich-phd/how-america-got-trumped_b_9411360.html

Lu, A., Zhang, M., Shao, Y., Yu, Y., Zheng, S., Ye, J., ...Wang, L. (2015). What directions do we look at power from? Up-down, left–right, and front-back. *PloS One*, *10*(7), 1–16. DOI: 10.1371/journal.pone.0132756

Lucas, F. (2015, December 21). Obama accused of playing the 'race card' on Donald Trump. Retrieved from http://www.theblaze.com/stories/2015/12/21/obama-trump-exploiting-frustrations-of-blue-collar-men/

Maass, A., Suitner, C., & Arcuri, L. (2014). The role of metaphors in intergroup relations. In M. Landau, M. Robinson, & B. Meier (Eds.), *The power of metaphor: Examining its influence on social life* (pp. 153–177). Washington, DC: APA Press.

McCaskill, N. D. (2015, November 11). Ben Carson compares Syrian refugees to dogs. Retrieved from http://www.politico.com/story/2015/11/ben-carson-syria-refugee-dogs-216064

Meier, B. P., & Robinson, M. D. (2004). Why the sunny side is up. *Psychological Science*, *15*(4), 243–247. DOI: 10.1111/j.0956-7976.2004.00659.x

Meier, B. P., Hauser, D. J., Robinson, M. D., Friesen, C. K., & Schjeldahl, K. (2007). What's "up" with God?: Vertical Space as a representation of the divine. *Journal of Personality and Social Psychology*, *93*(5), 699–710. DOI: 10.1037/0022-3514.93.5.699

Meier, B. P., Sellbom, M., & Wygant, D. B. (2007). Failing to take the moral high ground: Psychopathy and the vertical representation of morality. *Personality and Individual Differences*, *43*(4), 757–767. DOI: 10.1016/j.paid.2007.02.001

Meier, B. P., Scholer, A., & Fincher-Kiefer, R. (2014). Conceptual metaphor theory and person perception. In M. Landau, M. Robinson, & B. Meier (Eds.), *The power of metaphor: Examining its influence on social life* (pp. 43–64). Washington, DC: APA Press.

Moeller, S. K., Robinson, M. D., & Zabelina, D. L. (2008). Personality dominance and preferential use of the vertical dimension of space: Evidence from spatial attention paradigms. *Psychological Science*, *19*(4), 355–361. DOI: 10.1111/j.1467-9280.2008.02093.x

Mukherjee, S., Molina, L. E., & Adams, G. (2012). National identity and immigration policy: Concern for legality or ethnocentric exclusion? *Analyses of Social Issues and Public Policy*, *12*(1), 21–32. DOI: 10.1111/j.1530-2415.2011.01257.x

Mukherjee, S., Molina, L. E., & Adams, G. (2013). "Reasonable suspicion" about tough immigration legislation: Enforcing laws or ethnocentric exclusion? *Cultural Diversity and Ethnic Minority Psychology*, *19*(3), 320–331. DOI: 10.1037/a0032944

Nelson, S. C. (2008). Feeling thermometer. In P. J. Lavrakas (Ed.), *Encyclopedia of Survey Research Methods* (pp. 276). Thousand Oaks, CA: SAGE Publications, Inc.

Niedenthal, P., Barsalou, L., Winkielman, P., Krauth-Gruber, S., & Ric, F. (2005). Embodiment in attitudes, social perception, and emotion. *Personality and Social Psychology Review*, *9*(3), 184–211. DOI: 10.1207/s15327957pspr0903_1

Norton, M. I., & Sommers, S. R. (2011). Whites see racism as a zero-sum game that they are now losing. *Perspectives on Psychological Science*, *6*(3), 215–218. DOI: 10.1177/1745691611406922

O'Brien, G. V. (1999). Protecting the social body: Use of the organism metaphor in fighting the "menace of the feebleminded". *Mental Retardation*, *37*(3), 188–200. DOI: 10.1352/0047-6765(1999)037<0188:PTSBUO>2.0.CO;2

O'Brien, G. V. (2003). Indigestible food, conquering hordes, and waste materials: Metaphors of immigrants and the early immigration restriction debate in the United States. *Metaphor and Symbol*, *18*(1), 33–47. DOI: 10.1207/S15327868MS1801_3

O'Brien, G. V. (2010). Social justice implications of the organism metaphor. *Journal of Sociology and Social Welfare*, *37*(1), 95–113.

Ottati, V. C., & Renstrom, R. A. (2010). Metaphor and persuasive communication: A multifunctional approach. *Social and Personality Psychology Compass*, *4*(9), 783–794. DOI: 10.1111/j.1751-9004.2010.00292.x

Park, J. H., Schaller, M., & Crandall, C. S. (2007). Pathogen-avoidance mechanisms and the stigmatization of obese people. *Evolution and Human Behavior*, *28*(6), 410–414. DOI: 10.1016/j.evolhumbehav.2007.05.008

Perry, M., Chase, M., Jacob, M., Jacob, J., Daly, J. W., & von Laue, T. H. (2014). *Western civilization: Ideas, politics, and society, volume II: Since 1600*. Boston, MA: Cengage Learning.

Petraeus, D. (2016). David Petraeus: Anti-Muslim bigotry aids Islamist terrorists. Retrieved from https://www.washingtonpost.com/opinions/david-petraeus-anti-muslim-bigotry-aids-islamist-terrorists/2016/05/12/5ab50740-16aa-11e6-924d-838753295f9a_story.html

Robinson, M. D., Zabelina, D. L., Ode, S., & Moeller, S. K. (2008). The vertical nature of dominance-submission: Individual differences in vertical attention. *Journal of Research in Personality*, *42*(4), 933–948. DOI: 10.1016/j.jrp.2007.12.002

Ronquillo, J., Denson, T. F., Lickel, B., Zhong-Lin, L., Nandy, A., & Maddox, K. B. (2007). The effects of skin tone on race-related amygdala activity: An fMRI investigation. *Social Cognitive and Affective Neuroscience*, *2*(1), 39–44. DOI: 10.1093/scan/nsl043

Schnall, S. (2014). Are there basic metaphors? In M. Landau, M. Robinson, & B. Meier (Eds.), *The power of metaphor: Examining its influence on social life* (pp. 225–247). Washington, DC: APA Press.

Schraub, D. (2016). Playing with cards: Discrimination claims and the charge of bad faith. *Social Theory and Practice*, *42*(2), 285–303. DOI: 10.5840/soctheorpract201642216

Schubert, T. W. (2005). Your highness: Vertical positions as perceptual symbols of power. *Journal of Personal and Social Psychology*, *89*(1), 1–21. DOI: 10.1037/0022-3514.89.1.1

Sibley, S. A., Senn, S. K., & Epanchin, A. (1968). Race and sex of adolescents and cooperation in a mixed-motive game. *Psychonomic Science*, *13*(2), 123–124. DOI: 10.3758/BF03342441

Sidanius, J., & Pratto, F. (1999). *Social dominance: An intergroup theory of social hierarchy and oppression*. New York: Cambridge University Press.

Silvestre, A., Sarlet, M., Huart, J., & Dardenne, B. (2016). Benevolent ideology and women's economic decision-making: When sexism is hurting men's wallet. *PloS One*, *11*(2), 1–10. DOI: 10.1371/journal.pone.0148629

Smith-McLallen, A., Johnson, B. T., Dovidio, J. F., & Pearson, A. R. (2006). Black and white: The role of color bias in implicit race bias. *Social Cognition*, *24*(1), 46–73. DOI: 10.1521/soco.2006.24.1.46

Staub, E. (1989). *The roots of evil: The psychological and cultural origins of genocide and other forms of group violence*. Cambridge: Cambridge University Press.

Steuter, E., & Wills, D. (2010). 'The vermin have struck again': Dehumanizing the enemy in post 9/11 media representations. *Media, War, & Conflict*, *3*(2), 152–167. DOI: 10.1177/1750635210360082

Stewart, I. (2011). Commandeering time: The ideological status of time in the social Darwinism of Herbert Spencer. *Australian Journal of Politics and History*, *57*(3), 389–402. DOI: 10.1111/j.1467-8497.2011.01604.x

Talaska, C. A., Fiske, S. T., & Chaiken, S. (2008). Legitimating racial discrimination: Emotions, not beliefs, best predict discrimination in a meta-analysis. *Social Justice Research*, *21*(3), 263–296. DOI: 10.1007/s11211-008-0071-2

Tolaas, J. (1991). Notes on the origin of some spatialization metaphors. *Metaphor and Symbolic Activity*, *6*(3), 203–218. DOI: 10.1207/s15327868ms0603_4

Trump, D. (2016, June 13). Transcript: Donald Trump's national security speech. Retrieved from http://www.politico.com/story/2016/06/transcript-donald-trump-national-security-speech-224273

White, M. H. II, & Landau, M. J. (2016). *The role of vertical metaphor in social dominance orientation and prejudice*. Manuscript in prep: University of Kansas.

Wohl, M. J. A., Branscombe, N. R., & Klar, Y. (2006). Collective guilt: Emotional reactions when one's group has done wrong or been wronged. *European Review of Social Psychology*, *17*(1), 1–37. DOI: 10.1080/10463280600574815

Zanolie, K., van Dantzig, S., Boot, I., Wijnen, J., Schubert, T. W., Giessner, S. R., & Pecher, D. (2012). Mighty metaphors: Behavioral and ERP evidence that power shifts attention on a vertical dimension. *Brain and Cognition*, *78*(1), 50–58. DOI: 10.1016/j.bandc.2011.10.006

Zhong, C., & House, J. (2014). Dirt, pollution, and purity: A metaphoric perspective on morality. In M., Landau, M., Robinson, & B. Meier (Eds.), *The power of metaphor: Examining its influence on social life* (pp. 109–131). Washington, DC: APA Press.

Zhong, C., & Liljenquist, K. (2006). Washing away your sins: Threatened morality and physical cleansing. *Science*, *313*(5792), 1451–1452. DOI: 10.1126/science.1130726

AUTHOR BIOGRAPHIES

A doctor student in social psychology at the University of Kansas. Mark H. White II studies how people justify their prejudicial attitudes to themselves and others. He also studies how social and political ideologies serve this justifying function. He has been funded by the Society for the Psychological Study of Social Issues.

An associate professor of psychology at the University of Kansas. Mark J. Landau studies the influence of metaphor on social thought and behavior. He also studies how existential motives drive the search for meaning and personal value. He has been funded by the National Science Foundation and the National Institute of Mental Health.