Dimensions of Stereotypes about Groups

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Abstract

People perceive social groups along stereotype dimensions. Several models of social evaluation identify so-called horizontal (relational, warmth, communion) and vertical (achievement, competence, agency) judgments, also known as the Big Two. Each has two facets, respectively indicating perceived morality and friendliness for horizontal, plus ability and assertiveness for vertical. Perceivers also locate groups within socio-political structures, such as socioeconomic status and ideological beliefs. These six commonly used stereotype dimensions (morality, friendliness, ability, assertiveness, status, beliefs) each predict specific and pragmatic behaviors toward (members of) groups, including approach, investment, cooperation, and inclusion. Overall, the trait dimensions correlate positively (e.g., the two respective facets of each of the Big Two), but contextual goals can override general patterns. For example, when people encounter two unequal groups and strive for social justice and harmony, the horizontal and vertical judgments correlate negatively. Contextual goals and transient motives also moderate the importance of the stereotype dimensions. We conclude by suggesting avenues for future research.

Keywords: social groups; social evaluation; stereotype dimensions; stereotype facets; stereotypes and behavior

Dimensions of Stereotypes about Groups

To navigate their social environment—to coordinate their behavior with (or against) others—people must understand those others well enough. For efficiency, individuals define others and themselves by referring to their respective memberships in social groups of many kinds: sociodemographic (e.g., gender, age, and race/ethnicity), geographic (e.g., residence in urban versus rural areas), social class (based on education, wealth, income), political, religious, occupation (e.g., doctors and bankers), interest groups (e.g., sport, music, or art enthusiasts), and many others. People often rely on stereotypes about the groups to simplify their perceptions of their members. Over the past three decades, several models described these stereotype dimensions in terms of their relational (communal, warmth, moral) versus achievement (agency, competence, status) dimensions. This led to an adversarial collaboration to identify the models' overlap and partial contradictions (Ellemers et al., 2020). Here, we review the most common stereotype dimensions and explain their significance in guiding distinct, pragmatic decisions and behaviors toward different groups and their members. The stereotype dimensions differ in how they potentially capture people's attention and orient behaviors. While these dimensions relate to each other in predictable ways, their priority and correlations also depend on the perceiver's context and goals. From all this follow new directions for future research.

A More Precise and Expanded Set of Stereotype Dimensions

The Big Two and Their Facets

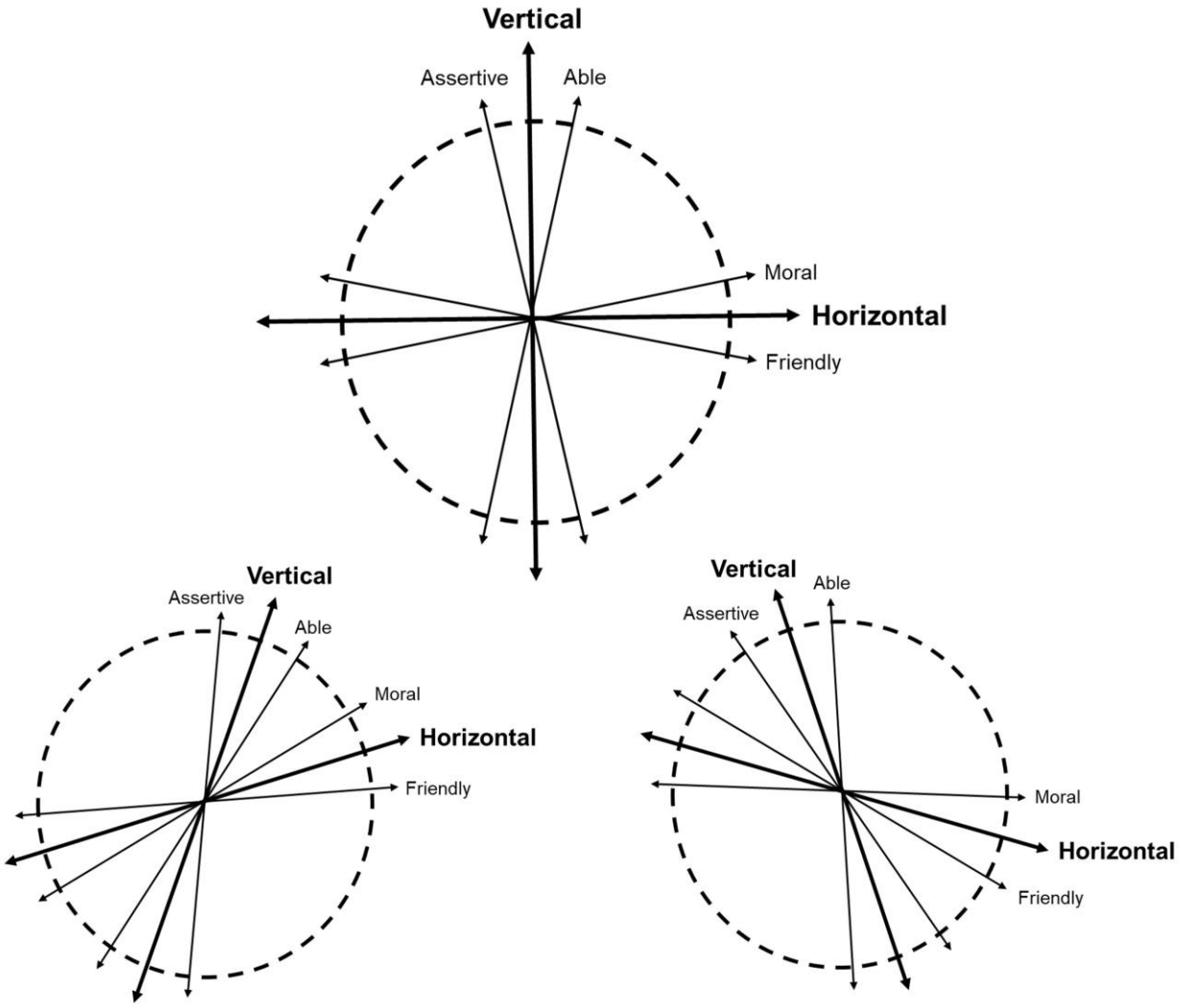
At the turn of the millennium, research by Fiske and colleagues (2002) found that people assess groups and their members along two main dimensions: warmth and competence. Warmth reflects group members' perceived intentions —whether they seem cooperative or hostile—while

competence indicates the likelihood that the group achieves its goals. Participants rated groups using traits tied to warmth (e.g., “warm,” “tolerant,” and “sincere”) and competence (e.g., “competent,” “confident,” and “intelligent”). Together these define distinct group stereotypes in a warmth-by-competence space. Underscoring the need for both dimensions, some groups enjoy a high standing on both counts, such as students (high warmth, high competence), whereas others, such as drug addicts, lack in both domains (low warmth, low competence). Some groups, instead, are perceived as high in warmth but low in competence (e.g., the elderly), or the opposite—high in competence but low in warmth (e.g., businesspeople).

Recently, researchers who examine interpersonal, intragroup, intergroup, and multiple-groups contexts found that they had all identified the so-called “Big Two” dimensions, though they labeled them differently. As a case in point, a rich tradition of work on person- and self-perception opted for the labels communion (rather than warmth) and agency (instead of competence; Abele & Wojciszke, 2014; Gebauer & Sedikides, 2018). An adversarial collaboration aimed to resolve controversies between the research programs (Abele et al., 2021; Ellemers et al., 2020; Koch et al., 2021). The proponents agreed on broader labels for the Big Two: “horizontal” for the warmth, communion, and relations dimension, and “vertical” for the competence, agency, and achievement dimension. The collaboration further refined the Big Two, distinguishing between morality (e.g., “honest” and “sincere”) and friendliness (e.g., “friendly” and “warm”) as distinct facets of the horizontal dimension, and between ability (e.g., “capable” and “skilled”) and assertiveness (e.g., “confident” and “determined”) as facets of the vertical dimension (Barbedor et al., 2024; Koch et al., 2024; Yzerbyt et al., 2022). The top panel of Figure 1 illustrates the theoretical independence of the Big Two in a geometric space. The two

vertical facets are more tightly linked to each other than to the other dimension, as are the two horizontal facets.

Figure 1



Note. The Big Two and their facets. Theoretically, the Big Two indicate independent dimensions of stereotypes about groups (top panel). Empirically, the Big Two and their facets tend to correlate positively (bottom left panel). Under certain conditions, the Big Two correlate negatively, which is known as the compensation pattern (bottom right panel).

Dimensions Beyond the Big Two

The early research portrayed perceivers as lay psychologists identifying other people's personality traits, in the tradition of person perception research. Typically, each perceiver rated only a few groups of people, implying that they were interested in face-to-face interaction as a function of their subjective impressions. Initially, socioeconomic status and ideological beliefs were taken as socio-structural predictors of psychological stereotypes: Perceived status predicted perceived competence, while perceived cooperative potential (e.g., similar or compatible ideological beliefs) predicted perceived warmth (Fiske et al., 2002; Yzerbyt et al., 2005).

Later research portrayed individuals as lay sociologists who spontaneously rely on status and beliefs stereotypes to make sense of various groups. At a national level, how do groups stand, relative to each other? Specifically, people rated the (dis)similarities between many groups by choosing to compare the perceived socioeconomic status and ideological beliefs of their members (Koch et al., 2016; Koch et al., 2020).

Another recent development is to leverage dictionaries and algorithms to capture the expression of stereotypes in natural language. In some of this emerging research, people described groups and individuals in their own words. They were free to mention any stereotype dimension (Connor et al., 2025; Nicolas, Bai, & Fiske, 2022). These spontaneous responses referred to not just the Big Two and their facets, status, and beliefs, but also additional dimensions not considered in studies that capture stereotypes with personality traits, including perceived emotions (e.g., "happy"), appearance (e.g., "attractive"), health, and deviance (e.g., "normal" vs. "weird"). Future research might further address how these additional stereotype dimensions relate to the Big Two plus their facets, as well as status and beliefs.

Stereotype Dimensions Predict Specific, Pragmatic Behaviors

Perhaps the most important reason for distinguishing between stereotype dimensions is that together they predict behavior toward people as members of many social groups. One behavioral study (Jenkins et al., 2018) examined participants who determined how money would be split between themselves and different group members, each in turn. Selfish decisions of taking most or all money were more likely when the group was stereotyped as low on the horizontal dimension (i.e., unfriendly and immoral). Generous decisions of giving most or all money were more likely when the group was seen as low on the vertical dimension (i.e., unable and unassertive).

Importantly, the differentiation between stereotype dimensions is most useful when each best explains a distinct and relevant social behavior. Recent research by Koch and colleagues (2024) validated the facet model in this way. When participants' payout depended on others' corrupt behavior that would benefit them, they preferred to partner with someone they perceived as friendly. Similarly, they invested in others they perceived as moral, able, and assertive when their payouts relied on the others' integrity (i.e., reliable advice), skills (i.e., numeracy and general knowledge), and bravery (i.e., risk tolerance), respectively.

Status and beliefs stereotypes predict specific, pragmatic behaviors as well. Groups whose members are perceived as higher status tend to receive more attention and engagement. For example, sports teams that win attract more clicks on their websites (Boen, Vanbeselaere & Feys, 2002). Academic papers co-authored by prestigious scholars generate more feedback and discussion (Simcoe & Waguespack, 2011). People are more likely to delegate tasks to conservatives (as opposed to members of progressive groups) when the task's successful completion involves sticking with familiar, valuable choices rather than exploring new options.

That is, stereotypes about a group's beliefs guide how perceivers solve the collective dilemma between exploiting known rewards and exploring new opportunities (Koch et al., 2025).

Future research should examine whether additional dimensions (e.g., attractiveness, health, or deviance stereotypes) also predict specific and goal-serving behaviors toward group members. For example, in friendships, romantic relationships, and job opportunities, are the advantages of perceived attractiveness, health, and non-deviance direct effects? Or are they indirect effects mediated through improved vertical or horizontal trait-based stereotypes?

Goals Shift the Priority of Objective/Descriptive (Vs. Subjective/Evaluative) Stereotypes

Descriptive and evaluative stereotypes are distinct. People *describe* groups and their members on more objective, observable, and consensual dimensions, but they comparatively *evaluate* groups on more subjective, malleable, and debatable stereotypes (Yzerbyt & Cambon, 2017).

Regarding descriptive content, vertical stereotypes, especially assertiveness, strongly correlate with status stereotypes about the same groups (Fiske, 2018; Yzerbyt, 2018). Stereotypes about groups' status, assertiveness, and beliefs are more widely shared (i.e., consensual) than horizontal stereotypes (Koch et al., 2020). Additionally, people often mention status and ability earlier when spontaneously describing groups in writing (Nicolas, Bai, & Fiske, 2022). Therefore, people may often rely on perceived status and beliefs, and the vertical stereotypes, to initially *describe groups* and their members in an impartial way.

However, people's evaluation of another individual is primarily influenced by how they personally see or anticipate the individual's horizontal traits (especially morality, but also friendliness; Brambilla et al., 2011; Wojciszke et al., 1998). The same holds for evaluating an experimental or real-life ingroup (Ellemers et al., 2013; Leach et al., 2007) or outgroup (e.g.,

immigrants; Brambilla et al., 2021). Therefore, horizontal stereotypes (especially perceived morality) are more relevant for *evaluating groups* and their members as they relate to oneself.

Recent research (Nicolas, Fiske, et al., 2022) examined the priority of more objective/descriptive versus subjective/evaluative stereotype dimensions. Generally, participants indicated that learning about groups' morality was most important (Brambilla et al., 2021; Ellemers et al., 2013), suggesting that evaluative, relational information tends to take precedence over descriptive, impartial information.

However, the research also revealed variability in how people prioritize stereotypes. When people consider many groups at once, their goal tends to be *epistemic*: they seek to structure and understand the position of these groups in society. Learning and paying attention to groups' beliefs, status, and assertiveness should help them to achieve this goal.

When perceivers focus on a few specific groups, their goal is likely *eudemonic*: they want to understand their beneficial or problematic relationship with these groups. For this goal, information about groups' friendliness, and morality becomes significant. Instilling these two goals in participants showed that those who focused on understanding groups' place in the social structure gave more priority to descriptive stereotypes, such as status, assertiveness, and beliefs. Participants who focused on understanding their relationship with specific groups prioritized evaluative stereotypes, such as morality, friendliness, and, to some extent, ability (Nicolas, Fiske, et al., 2022).

Contextual Goals Also Moderate Correlations Between Stereotypes

Another current direction is to better understand the correlations between the basic stereotype dimensions. The stereotype content model (Fiske et al., 2002) proposed that society stereotypes some groups as warm but incompetent, and other groups as cold but competent,

rather than always rating them as positive or negative on both warmth (the horizontal dimension) and competence (the vertical dimension). If ambivalent stereotypes were as common as univalent ones, the correlation between the Big Two would approach zero (see Figure 1, top panel). But in most societies, univalent (vs. ambivalent) stereotypes are more common, leading to a moderate positive correlation between the Big Two across societies (Figure 1, bottom left panel), as shown by Durante and colleagues (2013). Correlations between group stereotypes recently confirmed the differentiation of the Big Two into four facets (Barbedor et al., 2024; Koch et al., 2024). Positive correlations between morality and friendliness, and between ability and assertiveness, were stronger than any positive correlation between horizontal and vertical facets (see also Abele et al., 2016).

Contextual goals can, however, override these positive correlations between the Big Two (and their facets) and produce negative correlations (Figure 1, bottom right panel). For instance, given a status gap between two groups, people tend to perceive the higher-status group as more able and assertive while viewing the lower-status group as more friendly and moral. These compensatory stereotypes (Yzerbyt, 2018) help achieve the goal of social justice for observers, seemingly legitimizing existing status relations. For the members of the higher-status group, this compensation is a conciliatory concession – a “noblesse oblige” (French for “nobility obliges”) pattern. For the lower-status group, compensation is creative contention, which promotes positive distinctiveness and, ultimately, social harmony (Cambon & Yzerbyt, 2018; Yzerbyt & Cambon, 2017). Another relevant contextual goal is having to cooperate or compete with the members of a group. People see an able and assertive group as moral and friendly when they intend to cooperate with its members, but having to compete with them flips the sign of the

correlation between the Big Two: When looking at rivals, those with perceived ability and assertiveness come across as immoral and unfriendly (Carrier et al., 2019).

Recent research clarified that beyond contextual and temporary goals, goals driven by ideological beliefs and hierarchical positions also shape the correlations among the Big Two and their facets. Indeed, higher-status groups or highly meritocratic people see more overlap between assertiveness and ability than lower-status groups or less meritocratic individuals do (Yzerbyt et al., 2022). Another research article reports that the positive correlation between self-group similarity in beliefs and the group's perceived morality (Koch et al., 2020) increased with the group's stereotypic status. For example, progressives saw progressive groups that were more powerful as more moral. In contrast, they perceived conservative groups that were more powerful as less moral (Roberts & Koch, 2025).

Limitations and Future Directions

Arguing for a more nuanced approach than the Big Two dimensions and their facets introduces a circumplex model (Leach et al., 2015; see also Kervyn et al., 2013). This approach interprets traits around a circle superimposed on the two-dimensional space and encompasses more varied combinations and additional options. Cambon (2022) visualized trait generalizations (i.e., "If a person is [some trait], what is the probability that they are also [another trait]"). He plotted traits as points in a two-dimensional space, with the beeline between two dots/traits showing their relatedness, that is, the likelihood of generalization between them. The traits produced a circumplex pattern. Future research might test whether Cambon's model, which adds diligence and nurturance to the four facets, generalizes to stereotypes about groups. A circumplex model of stereotypes increases the number of traits around the circle. This allows for more overlap between the traits to improve on precision and meaning. In contrast, by focusing on

two orthogonal dimensions, the Big Two model prioritizes differentiation between dimensions but compromises on precision.

Circumplex models are more common in personality psychology than in models of stereotyping. This might relate to the preference for greater precision (splitting general traits) in evaluating individuals, and the desire for abstraction (lumping traits together) when evaluating groups. As much as this, considering a circumplex model of group stereotypes also points to a need for clarification of the relations between dimensions of social evaluations and dimensions of personality (i.e., self-evaluations). An ongoing debate tackles these issues and promises to deliver valuable insights (Thalmayer et al., 2024). More generally, the literature on group stereotypes may want to continue developing from a list of facets / dimensions to a theory of facets / dimensions organized by practically relevant attributes, including the purpose (description vs. evaluation) and target (groups vs. members) of social perception.

Future research might further investigate the contexts and goals that lead to positive (vs. zero or negative) correlations between the dimensions. For example, do the dimensions correlate less positively when people rate fewer groups, or when they rate groups on fewer dimensions, suggesting that increased attention leads to greater differentiation? Additionally, most empirical studies measure people's stereotypes by referring to the positive ends of dimensions (e.g., "How competent are firefighters?" instead of "How *in*competent are firefighters?"). One study, however, found larger positive correlations between the positive (vs. negative) ends of the Big Two (Gräf & Unkelbach, 2016), consistent with the notion of 'good is more alike than bad.' It remains to be seen whether this pattern generalizes to other dimensions discussed here. The research on moderators of the correlations between stereotypes dimensions also needs to advance

from a loose list to a stringent theory, and the same is true for moderators of the priority of the Big Two, status, beliefs, etc.

Closer attention may also be devoted to the role of culture in stereotypes about groups and their members. Previous research suggests that the Big Two are cross-cultural, universal stereotype dimensions (Durante et al., 2017), but empirical work is only beginning to generalize the facets across cultures and nations (Barbedor et al. 2024), and one should not underestimate the constraints on generality of focusing on WEIRD samples of respondents as well as groups (but see Abele et al., 2016).

Conclusion

This review highlights insights from an adversarial collaboration among proponents of various stereotype models. One key advance is a more detailed and comprehensive set of stereotype dimensions, which include perceived morality, friendliness, ability, assertiveness, socioeconomic status, and ideological beliefs. Distinguishing between these dimensions is important because each one predicts different, goal-driven decisions and behaviors toward groups and their members. Another significant development is that the priority of these dimensions (and their impact on overall evaluations) depends on the goals that arise in specific contexts. For instance, when considering many groups, status, assertiveness, and beliefs are prioritized; when evaluating a single group, people focus more on morality, friendliness, and ability. Additionally, contextual goals can alter the typically positive correlations between stereotype dimensions. For example, goals related to enhancing perceptions of social justice or preserving harmony between two groups may lead to negative correlations between perceived morality and friendliness on the one hand, and the traits of ability and assertiveness on the other hand. Overall, dimensional models of group stereotypes can be integrated based on a few

contextual goals as moderating factors. Harnessing the fruits of several years of adversarial collaboration, future research on group stereotypes promises to improve our understanding of the way social perceivers deal with their social environment.

Recommended Readings

(1) Abele, A. E., Ellemers, N., Fiske, S. T., Koch, A., & Yzerbyt, V. (2021). Navigating the social world: Toward an integrated framework for evaluating self, individuals, and groups. *Psychological Review, 128*(2), 290-314. https://doi.org/10.1037/rev0000262

A comprehensive review article that integrates our research on the content of, importance of, and link between stereotype dimensions in more detail.

(2) Ellemers, N., Fiske, S. T., Abele, A., Koch, A., & Yzerbyt, V. (2020). Adversarial alignment enables competing models to engage in cooperative theory-building, toward cumulative science. *Proceedings of the National Academy of Sciences*, *117*(14), 7561-7567. https://doi.org/10.1073/pnas.1906720117

An accessible account of the stipulations and contributions that enabled the humble success of our adversarial collaboration on stereotype dimensions.

(3) Nicolas, G., Fiske, S. T., Koch, A., Imhoff, R., Unkelbach, C., Terache, J., Carrier, A., & Yzerbyt, V. (2022). Relational versus structural goals prioritize different social information. *Journal of Personality and Social Psychology, 122*(4), 659–682. https://doi.org/10.1037/pspi0000366

An empirical article confirming that the multiple-group context and structural/epistemic goal prioritize stereotypes about status, beliefs, and assertiveness, whereas the single-group context and relational/eudemonic goal direct people's attention to stereotypes about the group's ability, friendliness, and morality.

(4) Koch, A., Smith, A., Fiske, S., Abele, A., Ellemers, N., & Yzerbyt, V. (2024). Validating a brief measure of four facets of social evaluation. *Behavior Research Methods*. https://doi.org/10.3758/s13428-024-02489-y

An empirical article that validates a brief, two-items measure of the four facets of the Big Two (i.e., stereotypes about groups morality, friendliness, ability, and assertiveness).

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