Conceptual and visual representations of racial categories: Distinguishing subtypes from subgroups

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ABSTRACT

While much of the person perception literature has focused solely on the representation of superordinate social categories (e.g., race and age), these superordinate social categories may be organized into smaller subcategories (i.e., subtypes and subgroups) that can be distinguished by their perceived typicality. Based on the logic that atypical subcategories represent subtypes and typical subcategories represent subgroups, we hypothesized that some subcategory labels would elicit greater perceived stereotypicality compared to others. In Experiment 1, participants listed stereotypic traits and rated the perceived typicality of subcategories of Black and White men. In Experiment 2 we used a reverse correlation image classification procedure to estimate participants' visual representations of the faces of Black and White superordinate category and subcategory members. Results indicated that representations of Black subgroups reflected traits and features more prototypical of Black men compared to representations of Black subtypes. Similarly, representations of White subgroups reflected traits and features more prototypical of White men compared to representations of White subtypes. The current experiments further clarify the nature of subcategory representations as subgroups and subtypes within the superordinate category. Implications for stereotype maintenance and change are considered.

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1. Introduction

Social psychologists have largely examined the processes that guide social perception and judgment as they relate to the activation of broad bases of social categorization like race, age, and gender. While these categories provide a great deal of explanatory power in describing the bases of person perception (Macrae, Quinn, Mason, & Quadflieg, 2005), explorations of these broad social categories alone may not provide a full understanding of the processes that guide stereotyping, prejudice, and discrimination. Indeed, when forming an impression of a target, perceivers often use information beyond the superordinate category to increase judgment accuracy (Stangor, Lynch, Duan, & Glas, 1992). While much of the public discourse focused on addressing discrimination stays at the level of broad social categories, more nuanced perspectives may be needed to understand and address the variability in the experiences of individuals. Reflecting this recognition are research programs exploring intersectionality (Purdie-Vaughns & Eibach, 2008), phenotypicality bias (Maddox, 2004), and biracial perception (Pauker et al., 2009). With this investigation, we seek to elaborate on research exploring the nature of social category representations with a focus on race.

2. Social category representations

2.1. Superordinate vs. subordinate categories

After initially categorizing a target, a perceiver may be motivated to gather individuating information that will distinguish the target from other category members (Brewer, 1988; Fiske & Neuberg, 1990). This additional information about a category member may be incorporated into the perceiver's superordinate category representation, contributing to the formation of subcategories (Hewstone & Hamberger, 2000; Maurer, Park, & Rothbart, 1995; Queller & Smith, 2002). Examinations of natural categories suggest that superordinate categories are organized into subcategories (Rosch, Mervis, Gray, Johnson, & Boyes-Braem, 1976). Social cognition researchers have adopted this reasoning, examining how social categories may be organized into smaller groups (Brewer, Dull, & Lui, 1981; Devine & Baker, 1991; Green & Manzi, 2002; Maurer et al., 1995). One implication of this framework suggests that categorizing targets at the subcategory rather than the superordinate category level may prove more efficient for the perceiver in a number of ways (Brewer, 1988; Brewer et al., 1981; Fiske & Neuberg, 1990). For example, the category "Black men" can be further divided into more specific subcategories that may or may not share traits typically associated with the superordinate category (e.g., "welfare Black" versus "businessman Black"; Devine & Baker, 1991; Green & Manzi, 2002; McCabe & Brannon, 2004). Therefore, a subcategory representation

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may more precisely reflect traits of a particular target. In addition, this more precise target-subcategory match may attenuate the need for the perceiver to gather additional individuating information about the target. After sufficient experience with a superordinate category and its underlying subcategories, perceivers may readily represent and automatically access the subordinate groups in memory directly, bypassing superordinate category activation (Pattyn, Rosseel, Van Overwalle, & Van Hiel, 2015). Thus, subcategories may be the default way perceivers represent categories and match exemplars in everyday interactions (Brewer et al., 1981; Pattyn et al., 2015).

2.2. Subgroups vs. subtypes

Maurer et al. (1995) explored how perceivers organize the superordinate category using two types of subcategories: subgroups and subtypes. Subgrouped targets represent fairly typical category members with features that largely confirm elements of the superordinate category stereotype, while subtyped targets represent fairly atypical category members with features that disconfirm elements of the superordinate category stereotype (Maurer et al., 1995; for review see Richards & Hewstone, 2001). In the perceiver's representation, subgroups are regarded as typical members of the superordinate category, whiles subtypes are regarded as atypical: they are exceptions to the category rule that are "fenced off" from the superordinate category (Allport, 1954; Maurer et al., 1995; Richards & Hewstone, 2001).

These representations have important consequences for perception and judgment. Examinations of subcategories in the context of a memory confusion task reveal that subtyped targets are more likely to be confused with other subtypes, while subgrouped targets are more likely to be confused with other subgroups (Johnston, Hewstone, Pendry, & Frankish, 1994). The targets associated with these subcategories also exert different influences on superordinate category judgements. The process of re-fencing atypical instances into subtypes has the consequence of increasing perceptions of the superordinate category's homogeneity and stereotypicality while the formation of typical instances into subgroups decreases perceptions of homogeneity and stereotypicality (Maurer et al., 1995; Park, Ryan, & Judd, 1992). Members of subtypes and subgroups can have different implications for stereotype change. For instance, as an atypical member of a social category, a subtyped target who exhibits stereotype-inconsistent behavior is unlikely to elicit superordinate stereotype change. Conversely, as a typical group member, a subgrouped target who displays stereotype-inconsistent behavior is more likely to elicit superordinate stereotype change (Maurer et al., 1995; Richards & Hewstone, 2001; Rothbart & Lewis, 1988). Finally, representations of subgroups versus subtypes have distinct implications for the target. In contrast to subgrouping, subtyping may benefit the target by allowing them to be evaluated largely outside the context of a negatively-stereotyped superordinate category membership (Richards & Hewstone, 2001).

These distinctions lead to predictions about how each subcategory will be represented in relation to the superordinate category and other members of the group. Subgroups will be represented as typical instances of a category, sharing many features with other members of the group, while subtypes will be represented as atypical instances of a category, sharing few features with other members of the group (e.g., Richards & Hewstone, 2001).

3. Overview: identifying subgroups and subtypes

Park, Wolsko, and Judd (2001) described three measures for establishing that subgrouping or subtyping has occurred: (1) confusion with other subgroup or subtype members, (2) degree of similarity between the target and other individuals in the group, and (3) degree of typicality of the target in relation to the superordinate category. Collectively, these three measures can estimate a target's identity as belonging to a subgroup or a subtype of a superordinate category. Here, by

examining category typicality, we aim to address four limitations of previous work exploring subcategory representations. First, examinations of the cognitive processes surrounding subgrouping and subtyping have focused on artificial groups developed to tightly control the variables contributing to these phenomena (Hewstone, 1994; Maurer et al., 1995; Park et al., 2001). While these methods have allowed researchers to carefully examine subcategorization processes, they limit the extent to which conclusions about these processes may be generalized to real social groups. With one exception (McCabe & Brannon, 2004) there is no evidence to date indicating that real-world categories of people are perceived as either subgroups or subtypes of their superordinate category. Without evidence that perceptions of real-world social groups are guided by subcategorization processes, we are limited in the extent to which we can generalize the evidence that subgroups and subtypes influence stereotypic beliefs and judgment. Second, these examinations have focused largely on the consequences of subcategory representations rather than exploring the nature of the representations themselves. By better understanding how subcategories are represented, we can make unique predictions about stereotype application and maintenance as it relates to the real-world experience of people who occupy multiple social categories simultaneously. Third, most prior examinations of how perceivers represent subcategories (e.g., athletes or businessmen) within a real-world group (e.g., Black men) did not consider whether these representations may reflect either subgroups or subtypes (Devine & Baker, 1991; Green & Manzi, 2002). Finally, even investigations that differentiate real-world subgroups from subtypes have relied on explicit ratings of the typicality of a subcategory in relation to the superordinate category (McCabe & Brannon, 2004). While typicality ratings are a reliable measure for distinguishing subgroups versus subtypes, ratings made under these circumstances may unintentionally influence participants' perceptions of the targets in question (Park et al., 2001). Namely, asking a participant to focus their attention on the typicality of a given subcategory may prompt them to subtype a subcategory when they otherwise would not.

Two experiments were designed to address these limitations, using both direct and indirect measures of category representation to establish whether certain subcategories are represented distinctly and spontaneously as subgroups or subtypes of Black and White men. We focused our investigation on one of the subcategorization indices described by Park et al. (2001)—category typicality—but extend that work by exploring the utility of trait-category overlap (Experiment 1) and visual representations (Experiment 2). Based on the logic that the most typical subcategories represent subgroups and the most atypical subcategories represent subtypes, we hypothesized that participants would report greater perceived stereotypicality in the context of subgroup labels compared to subtype labels.

4. Experiment 1: conceptual representations of racial subcategories

Experiment 1 was designed to replicate and extend earlier investigations of Black male subcategory representations (Devine & Baker, 1991; Green & Manzi, 2002; McCabe & Brannon, 2004) by examining stereotypic trait listings for several potential subcategories of Black men. Further extending that work, we also explored representations of White men and included a measure of perceived typicality for each subcategory.

4.1. Method

4.1.1. Participants and design

Participants were randomly assigned to conditions in a 2 (target race: Black or White) × 7 (subcategory: athlete, businessman, doctor, hipster, janitor, rapper, and redneck) mixed model design with repeated measures on the second factor. Prior to initiating data collection, we aimed to recruit at least 50 participants per between-subjects condition, for a total of 100 participants.