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**Dual Intergroup Meanings of Essentialism: Implications for Understanding
Prejudice towards African Americans and Gay Men**

A Dissertation Presented

by

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Abstract of the Dissertation

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Extensive literature on lay theories suggests that the perception and judgment of groups are influenced by perceivers' theory of an underlying *essence* that causes or explains behavior that is distinctive of members of a particular group. Yet, research has shown that essentialism is positively, negatively, or unrelated to stereotyping and prejudice. Using an integrative social-developmental perspective (Levy, West, & Ramirez, 2005), I empirically tested the intuition that some essentialist beliefs (biological basis, immutability, entity theory, informativeness, and binary category) cause prejudice towards African Americans and gay men. I hypothesized that different essentialist beliefs hold different implications for the two types of prejudice and that these implications are moderated by perceiver's characteristics (e.g., status, gender, ingroup identification). Data collected from 614 participants from a community sample in New York City suggests that increasing the salience of essentialist beliefs concerning informative potential, entity theory and biological basis leads to greater prejudice toward

African Americans and gay men. Findings also suggest that increasing the salience of essentialist beliefs concerning entity theory and immutability leads to lower prejudice toward gay men. The effect of raising the salience of these essentialist beliefs on prejudice was present among members of the outgroup (European Americans and heterosexuals) but not among members the ingroup (African Americans and gay men). Findings also partially support the role of gender and ingroup identification in the impact of essentialist beliefs on prejudice towards these groups. The implications of this research for theorizing on essentialism and directions for future work in this area are discussed.

To my children Felipe and Andrea

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Chapter 1

Introduction

Lay theories are the theories people use in their everyday life (e.g., Furnham, 1988; Heider, 1958; Hong, Levy, & Chiu, 2001; Fletcher, 1995; Levy, Chiu, & Hong, 2006; Wegener & Petty, 1998; Yzerbyt, Judd, & Corneille, 2004). They are often captured by proverbs such as “a leopard never changes its spots” (U.S. proverb) and “A tree that is born bent can never straighten its trunk” (translation of Colombian proverb). Similar to the way scientific theories help scientists understand and predict events, lay theories help ordinary people understand and predict events in their social world. Lay theories have been shown to be central to social thought and behavior, filtering perceptions of the self, individual others, and groups (for reviews, see Hong et al., 2001; Fletcher, 1995; Furnham, 1988; Levy, Chiu, & Hong, 2006; Wegener & Petty, 1998; Yzerbyt, Judd, & Corneille, 2004). As examples, lay theories help us interpret academic setbacks and select friends.

Over the past twenty years, abundant research has focused on the role of lay theories in intergroup relations (for reviews, see Hong et al., 2001; Levy, Chiu, et al., 2006; Yzerbyt et al., 2004). This work has shown that lay theories can reliably relate to people’s stereotyping, prejudice, and discrimination toward members of a variety of groups including racial and ethnic groups (e.g., Haslam et al., 2000; 2002; Katz & Hass, 1988; Keller, 2005; Levy et al., 1998) and gay men and lesbians (e.g., Biernat, Vescio, & Theno, 1996; Haslam et al., 2002; Haslam & Levy, 2006; Jayarante et al., 2006; Keller,

2005). Some of these lay theories include essentialism (e.g., theory about the core qualities of a group, Haslam, Rothchild, & Ernst, 2000, 2002; Yzerbyt, Rocher, & Schadron, 1997) and incremental versus entity theories (theories about the malleability vs. fixedness of group attributes, e.g., Hong, Chiu, Young, & Tong, 1999; Levy, Stroessner, & Dweck, 1998).

Lay theories about differences between groups are often at the heart of important debates in the American society. For example, prejudice toward people of disadvantaged ethnic and racial groups has often been linked to the belief that differences between social groups are explained by biological differences between their group members (e.g., Jayaratne et al., 2006). This belief is often expressed in U.S. literature, news reports, and other cultural manifestations (see Jay-Gould, 1999), offering a handy explanation for inequities between racial groups, men and women, and other groups (Lewontin, Rose, & Kamin, 1984). Consistently, the belief that human traits (e.g., intelligence) are fixed and non malleable, which is conceptually closely related to the belief in a biological basis for intergroup differences (Hirschfeld, 1993), has been linked to greater prejudice toward African Americans on the part of European Americans as well (Levy et al., 2001). This has led many theorists in psychology to argue that the lay theory of essentialism helps justify unequal relations among groups of society (Demoulin, Leyens, & Yzerbyt, 2006; Gelman & Taylor, 2000; Haslam, Bastian, Bain, & Kashima, 2006; Haslam, Rothchild, & Ernst, 2000; Mahalingam, 2003).

However in the public debate in the U.S. about the rights of gay men and lesbians (e.g., to adopt, to marry), essentialism has been used to defend rather than stigmatize gay persons. That is, people defending the rights of gay men and lesbians often raise the

argument of a biological basis for the existence of this group, and about the non-controllability of one's sexual orientation, to promote greater tolerance toward this social category (e.g., Jayaratne et al., 2006). In other words, people defending the rights of gay men and lesbians argue that sexual orientation is biologically determined and immutable and therefore, out of personal control.

Hence, essentialist beliefs are part of critical debates about groups and resources with essentialism sometimes being used to promote the rights of some groups (e.g., gay men and lesbians) and deny the rights of other groups (e.g., African Americans).

Perhaps, not surprising from this debate, past research has shown that the relation between essentialism and prejudice toward groups in general has been mixed, sometimes supporting prejudice and other times supporting tolerance. In particular, the belief that deep, underlying essences can account for differences between groups at a broad level, has been seen to relate to prejudice toward African Americans and German people of African descent by European Americans and Germans (Levy et al., 1998; Haslam et al., 2000; 2002; Jayaratne et al., 2006; Keller, 2005). Yet, essentialism also relates to tolerance toward other social categories such as gay men and lesbians (Haslam et al., 2002; Haslam & Levy, 2006; Jayaratne et al., 2006) among heterosexual European Americans.

One possible explanation for these mixed findings is that there is not a relation between essentialism and prejudice. Another possible explanation is that the relation between essentialism and prejudice might be specific to the group being evaluated. It is also possible that the relation between essentialism and prejudice is more complex and is additionally moderated by characteristics of the perceivers such as their group status. In

this sense, the lay theory of essentialism may have more than one intergroup implication (prejudice or tolerance), which may depend on several factors.

Dual meanings of a Lay Theory

There is some evidence in the literature that some pervasive lay theories have more than one intergroup implication (Levy, West, & Ramirez, 2005; Levy, West, Ramirez, & Karafantis, 2006; also see Levy, Chiu, et al., 2006). For example, Levy et al. (2005) proposed a social-developmental model of lay theories to help explain how and why pervasive lay theories can develop more than one intergroup meaning in a given culture. Levy and colleagues (Levy et al., 2005; Levy, West, et al., 2006) focused on the Protestant work ethic (PWE; theory that hard work leads to success) and colorblind theory (the theory that social category information such as race is irrelevant). They showed that each of these lay theories has a tolerant and intolerant meaning. For example, they showed that PWE has a “justifier of inequality” meaning particularly among European Americans; African Americans are seen as not conforming to the work ethic (not working hard enough) and thus deserving disadvantage. At the same time, PWE, as captured by “rags to riches” stories popular in the U.S., has an egalitarian meaning indicating that people from all social categories are basically equal and can all succeed. Levy et al. (2005) argued that the PWE and the colorblind theory were good candidates for having at least two intergroup meanings (social equalizer and justifier of inequality) and for being used in variable ways by different people and across contexts by the same person. Both the PWE and the colorblind theory can serve as justifiers of inequality in a seemingly egalitarian society such as the U.S. To justify socially and often personally unacceptable levels of prejudice in a society that offers egalitarian values, a lay theory

must appear egalitarian, suggesting that social intolerance is a “fair” response. Also, these two lay theories are somewhat vaguely and broadly defined, allowing for variability in their implications. Additionally, people are highly invested in these culturally pervasive lay theories, which may make them difficult to give up. Instead, people may attempt to use these lay theories to serve both tolerant and intolerant needs across situations and over time.

Likewise, essentialism can be used to justify unequal relations among groups backed by arguments of biological determinism that seem like “fair” responses. Also, essentialism, as will be seen, is vaguely defined as the core qualities of groups, suggesting the possibility of heterogeneity in its implications. Moreover, it is a pervasive U.S. belief that also has been found to develop early in life (e.g., Gottfried & Gelman, 2005), and thus, one that people are likely resistant to completely give up because of disdain for one of its meanings. Hence, essentialism has similar features to the Protestant work ethic and the colorblind theory and, likewise, it may hold multiple intergroup implications rather than a unitary one.

A fuller understanding of the role of the lay theory of essentialism for intergroup relations, then, likely requires taking into account the interaction between characteristics of the perceiver and the target group., Moreover, as elaborated below in a brief review of relevant findings from the essentialism literature, much of the research has been correlational, which further complicates our understanding of the nature of the relation between essentialism and prejudice. Thus, the main goals of this dissertation are to examine whether essentialist beliefs causally impact prejudice or tolerance in a consistent way toward two marginalized groups at the heart of the essentialism debate in the U.S.

(African Americans and gay men) depending on perceiver characteristics (in this case, high status outgroup and low status ingroup).

The lay theory of essentialism

At the broad level, essentialism represents a lay theory about differences between groups (e.g., Gottfried & Gelman, 2005; Yzerbyt, Rogier, & Fiske, 1998). It is a cognitive heuristic that some groups have X qualities (e.g., high intelligence) while other groups have Y qualities (e.g., high sociability). Rothbart and Taylor (1992) theorized that essentialist thinking involves a misunderstanding of socially constructed groupings as “natural kinds”, that is, something akin to biological species. For instance, to the extent that people believe that race represents something akin to a natural kind, skin color becomes one of those attributes that many people assume to represent the essence of a group. Thus, people tend to assume that members of a racial group share with one another something deep inside that makes them different from members of other groups. This essence is implicitly understood to determine the identity of category members while rendering all fundamentally alike. Consistently, an essentialized social category is believed to be fixed and impermeable. That is, its essence is a source of continuity and stability and, thus, of “inalterability” (Haslam, et al., 2006; Rothbart & Taylor, 1992).

Essentialism, then, is often linked, whether erroneously or not, with the notion that groups’ differences are biological (Hirschfeld, 1993; Rothbart & Taylor, 1992; Yzerbyt, Corneille & Estrada; 2001; Yzerbyt, Rogier & Fiske; 1998). Although there is some disagreement, most researchers agree that essentialist thinking falls into roughly a two dimensional structure - Natural Kinds Dimension and Entitativity or Reification

Dimension (e.g., Bastian & Haslam, 2006; Demoulin et al., 2006; Denson, Lickel, Curtis, Stenstrom & Ames, 2006; Haslam et al., 2000, 2002). The natural kinds dimension or meaning of essentialism includes the belief that some social categories are *immutable*, that is, membership in the category is fixed and its members can not change their identity; *discrete*, that is, membership in the category is all or nothing; *historically invariant*, or independent from human language and culture; having necessary, sufficient or *defining features*, and *natural*, which implies some sort of biological basis (Haslam et al. 2002). In recent studies, the entity theory, the belief that human traits are fixed, has been linked to the immutability component of the natural kinds dimension (Bastian & Haslam, 2006; Haslam et al., 2006, Kashima et al., 2005). Examples of social categories that tend to be viewed high on the natural kinds dimension are racial and ethnic groups and women (Denson et al., 2006; Haslam et al. 2000; 2002).

The other meaning of essentialism, the entitativity or reification meaning, refers to the notion of seeing a group as an entity (e.g., Brewer & Harasty, 1996; Campbell, 1958; Hamilton & Sherman, 1996, see Yzerbyt et al., 2004), and thus, this component of essentialism consists of beliefs that some social categories are *inherent*, or hold some underlying essence represented by surface features of the group; *uniform* or homogeneous, *informative* about its group members or inductively potent, and identity determining (e.g., Haslam et al. 2002). Examples of social categories that tend to be viewed as high on the entitativity or reification dimension are gay men, AIDS patients, political groups, religious groups (e.g., Jews), but also racial and ethnic groups (Haslam et al., 2000).

A closer examination of the components of essentialism is required for a better understanding of the relation between essentialism and prejudice toward the two social categories of interest in this dissertation, African Americans and gay men.

Essentialism and Race/Ethnicity

The implications of essentialist thinking for racial or ethnic relations are not straightforward. Endorsement of essentialist beliefs has been shown to increase reliance on positive and negative racial stereotyping (Haslam & Bastian, 2006; Haslam et al., 2000, Keller, 2005; Levy, et al., 1998; Yzerbyt, Rogier & Fiske, 1998), and prejudice (Jayaratne et al., 2006; Keller, 2006; Levy et al., 1998) At the same time, some studies revealed no or a weak relation between essentialist beliefs and prejudice toward African Americans (Haslam et al., 2002; Keller, 2005). A closer look seems to reveal that essentialism can have different implications for prejudice against African Americans depending on the characteristics of the perceiver (e.g. relative status, ingroup identification, gender) and the target group (e.g. African Americans, gay men, etc.).

Components of Essentialism and prejudice toward ethnic groups. In even the earliest studies of the relation between essentialism and beliefs toward racial groups, it was clear that essentialism does not always promote prejudice among the advantaged groups toward the less advantaged groups. Haslam et al. (2002), in a study of predominately European American college students, did not find a consistent relation between essentialism and prejudice. One possible reason for Haslam et al.'s findings is their analysis of a broad definition of essentialism (that is, general to all social categories) in predicting racism. Additionally, different essentialist beliefs may predict different

aspects of racism toward disadvantaged groups, which would be consistent with Levy et al.'s (2005) social-developmental perspective on lay theories. The two broadly accepted dimensions of essentialism (natural kinds and reification) may not equally contribute to stereotyping and prejudice.

Haslam et al. (2000) found that African Americans were rated highly on the natural kinds dimension (discreteness, naturalness, immutability, necessary features and historical stability), and rated low on the entitativity dimension (uniformity, inherence, informativeness) compared to other social categories (such as gay men).

Research on constructs that complement essentialism offers additional support for the natural kinds meaning of essentialism relating to racism toward disadvantaged groups. One complementary lay theory, as already noted, is the entity theory; the belief that *personal characteristics* are fixed entities or immutable (e.g., Dweck, 1999; Levy et al., 1998; Plaks et al., 2001). An entity theory is tied to the belief that traits are fixed at birth and therefore not only immutable but biologically determined (Levy et al., 1998). The entity theory, then, is conceptually related to the natural kinds dimension of essentialism (fixedness, biological basis). Indeed, research conducted with undergraduate students from three English speaking cultures (Australia, UK and USA), two continental European cultures (Belgium and Germany) and three East Asian cultures (Hong Kong, Japan, and Korea), showed that the belief in inalterability or entity theory is positively related to belief in biological determination (Kashima et al., 2005). Further, recent research revealed that an entity theory overlaps significantly with the Natural Kinds dimension of essentialism (see Bastian & Haslam, 2006; Haslam et al., 2006).

Levy et al. (1998), in studies with predominately European American college students, showed that students holding an entity theory generated significantly more stereotypes and agreed significantly more with stereotypes of African Americans than did students holding the opposite lay theory that traits are malleable (incremental theory). In studies also with majority group college students, in this case European American undergraduates, Levy et al. (1998) additionally provided evidence of a causal relation between an entity theory and stereotyping of race minority groups by the majority group. Predominately European American college students read a compelling fictitious “scientific” article about whether personality is unchangeable (entity manipulation) or changeable (incremental manipulation), presenting alleged evidence in each case. Results supported their intuition that participants who were led to think of traits in fixed terms (entity theory or natural kinds meaning of essentialism) endorsed more strongly stereotypes of African Americans than those who were led to think of traits in malleable terms.

Replicating these results, Bastian and Haslam (2006) also provided evidence of a causal relationship between entity theory (as well as a broader set of essentialist beliefs including biological basis, discreteness and informativeness) and stereotyping of ethnic groups (Japanese, Aboriginals and Jews).

The aforementioned findings on the relation between the natural kinds meaning and racial bias have been more or less replicated with other work using another complementary construct: the belief in the determination of personality or behavior by genetic factors -- “Belief in Genetic Determination” (BGD; Keller, 2005). In two studies with White German university students, Keller (2005) found that the relation between

BGD and stereotyping of Blacks was only marginally significant. However, in a second study Keller found a positive and strong correlation between BGD and both, Blatant and Subtle Prejudice toward Blacks (scales from Pettigrew & Meertens, 1995). Additionally, BGD was positively and significantly correlated with a measure of entity theory (Dweck, 1999), which lends further support to the idea that it is the natural kinds dimension of essentialism that relates to greater stereotyping of racial groups (see Bastian & Haslam, 2006; Haslam et al., 2006). Keller (2005) also provided evidence of a causal relation between BGD and prejudice. Keller manipulated the salience of the belief in genetic determination by giving participants either an article that included information about research on genes and their distribution among different populations (BGD manipulation), or an article with information unrelated to genetics (control condition). Keller found that heightening the salience of the biological determination component of essentialist beliefs significantly increased prejudice (measured as feelings of likeability toward Eastern Europeans) among Germans who chronically endorse BGD.

Evidence of a substantial relation between the belief in a biological basis and prejudice toward less advantaged ethnic and racial groups was also provided by work on yet another complementary lay theory of essentialism, the genetic lay theory (Jayaratne et al., 2006). Jayaratne et al. (2006) in a telephone study of a large community sample of adult European Americans, examined beliefs about the extent to which genetic differences explained race differences including race stereotypic behaviors. Results demonstrated that belief in a genetic lay theory was significantly related to racial attitudes, such that the more respondents endorsed a genetic lay theory the more negative attitudes were reported against Blacks on a “traditional” prejudice measure with items

such as "How bothered would you be if your son or daughter dated a Black person?", and on a "modern" prejudice measure with items such as "If Blacks don't do well in life, they have only themselves to blame" (see Kinder & Sanders, 1996). Thus, both Keller (2005) and Jayaratne et al. (2006) provided evidence that the belief in a biological basis for social categories correlated positively with both Blatant and Subtle Prejudice (in Keller's study) and with, traditional and modern racism (in Jayaratne et al.'s study). This suggests certain flexibility in the natural kinds meaning of essentialism that can be adapted to both types of prejudice.

Taken together, this empirical evidence brings support for the intuition that some essentialist beliefs (namely biological basis and immutability) do increase people's reliance on racial stereotyping and prejudice. Also, these findings were consistent among data collected in three different cultures, Australia, Germany, and the USA.

Perceiver characteristics. So far, I have reviewed evidence that the natural kinds meaning of essentialism relates to greater prejudice or bias. This work reviewed above, however, was conducted with predominately majority groups or high status groups in a variety of cultures. Thus, perceptions of essentialism among members of certain social categories may be moderated by characteristics of the perceiver (Bastian & Haslam 2006; Haslam et al 2002). I now turn to examining such characteristics in more detail, reviewing their role in shaping the relation between essentialism and attitudes toward racial or ethnic groups.

Verkuyten and Brug (2004) offered empirical evidence that not only high but low status groups use essentialist accounts to advocate and justify their claims. They conducted a study among secondary schools in the Netherlands, including White

Europeans (the ethnic majority) as well as participants from several ethnic minorities including Turkish, Moroccan, and Surinamese. The researchers developed measures for ingroup and outgroup essentialism using criteria from Haslam et al. (2000). On one hand, they provided evidence that status and ingroup identification moderate the relation between essentialism and tolerance or intolerance toward ethnic groups. That is among members of the majority group, outgroup essentialism correlated negatively and significantly with multiculturalism (beliefs in cultural diversity and the maintenance of different cultural identities within the same political framework) indicating less tolerance toward ethnic groups. Yet, ingroup essentialism correlated positively though not as strongly with multiculturalism as well. Among minority groups, however, both ingroup and outgroup essentialism correlated significantly and positively with multiculturalism (Verkuyten & Brug, 2004).

Hence, evidence suggests that essentialism can be a functional tool for both high and low status groups, supporting both tolerance and intolerance toward ethnic groups. It remains an unresolved issue whether essentialism takes on different meanings contingent upon the status of the group, as suggested by Social Identity Theory (Tajfel & Turner, 1979) whereby low status groups may find new and creative way to maximize favorable ingroup images and identifications.

Alternatively, members of low status groups may chose to subscribe to the dominant culture and thus embrace essentialist beliefs in the same manner as highs status groups. For example, Jost and Burgess (2000) argued that members of low status groups are faced with a psychological conflict between their group-justifying tendencies that allow them to evaluate favorably their ingroup members, and their system-justifying

tendencies to endorse the superiority of higher status groups. They suggest that members of low status groups may exhibit ingroup derogation and outgroup favoritism to the extent that they perceive the overarching system to be fair and justifiable. Thus, it is possible that low status group members endorse essentialism (to the extent that this may be another system-justifying belief) subscribing to the dominant culture, rather than reject it.

Verkuyten and Brug (2004), also found that the relation between essentialism and attitudes toward the outgroup was moderated by ingroup identification, suggesting that people tend to hold essentialist views whenever group comparisons are relevant to themselves. Ingroup identification is an important intergroup variable to consider in our analysis, because past work shows that it is related to a tendency to favor the ingroup at the expense of the outgroup regardless of how irrelevant the criteria for the designation of group membership is. Additionally, in doing so, people also tend to maximize differences between their own social category and that of others (Tajfel, 1970; Tajfel, Flament, Billig & Bundy, 1971). This is because people have a tendency for improving the position of the self to the extent that their own status is affected by the choices they make in categorizing others (Taylor & Moghaddam, 1994).

In sum, research findings suggest that people tend to hold essential views of their ingroup when, regardless of status, the comparison with an outgroup has potential implications for their ingroup identification. Consistently, essentialist beliefs can be accommodated to the needs of groups in different situations, such that in some cases they support prejudice toward ethnic groups (Jayaratne et al, 2006; Keller, 2005; Verkuyten & Brug, 2004) and in some other cases they support tolerance toward ethnic groups

(Verkuyten, 2003; Verkuyten & Brug, 2004). One possibility is that depending upon the status of the group, essentialism is construed on one or another of its meanings. Thus essentialist arguments coming from the majority group and promoting intolerance toward race or ethnic groups may be based on the natural kinds meaning of essentialism (Jayaratne et al., 2006; Keller, 2005). As will be elaborated below, we aim at further exploring the essentialist meanings that underlie the association between essentialism and tolerance toward racial or ethnic groups, across outgroup majority and ingroup minority groups. Additionally, we will explore on the implications of status and its interaction with other variables (e.g., group identification) for the relation between these essentialist beliefs and tolerance (intolerance) toward ethnic groups.

Summary

The implications of essentialist thinking for racial or ethnic relations are not straightforward. However, this brief review of empirical findings suggests some considerations that are consistent with our social-developmental perspective on lay theories (Levy, West, et al., 2006). First, our social-developmental perspective suggests that the different meanings of essentialism may predict greater or less prejudice toward disadvantaged groups (Levy et al., 2005, Levy, West, et al., 2006). There is empirical evidence that aspects of the natural kinds meaning of essentialist beliefs (e.g., immutability and biological determination) increase people's biased racial views (Bastian & Haslam, 2006; Levy et al., 1998) and lead to biased information processing (Plaks et al. 2001), and other complementary beliefs (e.g., belief in biological basis) lead to greater prejudice against Blacks (Jayaratne et al., 2006; Keller, 2005).

Second, our social-developmental perspective suggests that essentialism can have

different implications for race relations depending on the characteristics of the perceiver and the target group. Among high status groups, essentialism (namely the natural kinds meaning) seems to lead to greater prejudice (or less tolerance) toward low status groups (Jayaratne et al., 2006; Keller, 2005), however, low status groups may use essentialist arguments (namely the entitativity meaning) to protect and justify their own group claims as well their identity (Verkuyten & Brug, 2004). Furthermore it is possible that people tend to hold essentialist views about social categories whenever group comparisons are relevant to themselves (Haslam et al., 2002; Verkuyten & Brug, 2004).

This dissertation attempts to further test these intuitions.

Essentialism and Sexual Orientation

In the same way that there is a long history of discourse surrounding possible genetic differences between races (e.g., Hernstein & Murray, 1994), social scientists and lay people, as noted earlier, have debated about potential biological differences between heterosexual and gay persons (e.g., Byne & Parsons, 1993; Hegarty & Pratto, 2001; Jayaratne et al., 2006). Thus, it is not surprising, that there is accumulating literature on the role of essentialism in perceptions and judgments toward gay men and lesbians. Nonetheless, similar to the literature on race, there are mixed findings on the relation between essentialism and sexual orientation with some studies indicating that essentialism promotes greater tolerance while others indicate that essentialism promotes greater intolerance. However, in the study of essentialism and sexual orientation, an important distinction is not between the natural kinds and the reification meanings of essentialism but rather a distinction within the natural kinds meaning. For example,

some aspects of the natural kinds meaning of essentialism such as immutability (fixity and early determination) have been found to correlate positively with tolerance toward gay men and lesbians (Haslam & Levy, 2006; Hegarty & Pratto, 2001; Keller, 2005), whereas other components of the natural kinds dimension like fundamentality (the belief that sexual orientation is a binary category) have been found to correlate with prejudice toward gay people (Haslam & Levy, 2006). Accordingly, Hegarty and Pratto (2001) argued that people's beliefs about sexual orientation categories appear to vary along two dimensions, conceptually related, yet empirically distinct: immutability and fundamentality.

A more nuanced look at the literature on essentialism is needed to disentangle these mixed results. In this brief review, I focus on different aspects of the essentialism construct (e.g., immutability vs. fundamentality meanings) and on the impact of perceiver characteristics, on prejudice toward gay persons.

Components of Essentialism and prejudice toward gay men and lesbians. One possible explanation for the aforementioned set of mixed findings is that different components of the essentialism's meaning may consistently affect intergroup relations in different ways (Haslam et al. 2002; Haslam & Levy, 2006; Hegarty & Pratto, 2001). That is, traditionally, since Rothbart and Taylor's (1992) conceptual approach to essentialism, and later empirical tests to the structure proposed by them performed by Haslam et al. (2000; 2003), it had been assumed that both, immutability and fundamentality, were components of the Natural Kind dimension of essentialism's conceptual structure. Thus, it was expected that to the extent that these two components underlie the same dimension, their implications for intergroup attitudes should be highly

correlated. However, despite findings that essentialism promotes greater endorsement of stereotypes about gay men and lesbians (Bastian & Haslam, 2006), just like it does about racial groups, evidence on the relation between essentialism and prejudice toward gay men and women has shown otherwise.

In an early study about the relation between essentialism and prejudice toward gay persons, Haslam et al. (2002), found that those who endorsed negative attitudes toward gay men and lesbians tended to believe that this category is discrete, *non-natural*, mutable and inductively potent. That is, despite the expectation that the natural kinds meaning of essentialism would relate to prejudice toward gay persons, two important items from the Natural Kinds dimension, naturalness and mutability, loaded in the opposite direction from expected, whereas the beliefs that sexual orientation is a discrete independently predicted prejudice toward gay persons. In contrast, components of the entitativity dimension (e.g. the belief in the informativeness of the category), that emphasized similarities between members of the category, related consistently with prejudice toward gay men and lesbians. Indeed, other researchers studying the conceptual structure of essentialism in relation to sexual orientation have observed that some components such as immutability consistently seem to promote tolerance toward gay men and lesbians whereas other components such as fundamentality or discreteness seem to promote intolerance toward the same groups. For example, Hegarty and Prato (2001) conducted a study correlating beliefs about sexual orientation with the Attitudes toward Lesbians and Gay Men scale (ATLG scale, Herek, 1994) among predominately European American college students. They measured four components of essentialism that may have an effect on attitudes toward gay men and lesbians, three of the

components reflect the immutability meaning and are *early determinacy* (the belief that sexual orientation is determined early in the life span, before the manifestation of adult sexuality); *essential identity* (the belief that sexual orientation is a basic organizing principle of individual psychology) and *adult fixity* (the belief that sexual orientation is immutable once it emerges). The other component reflects the fundamentality meaning and consists in the *homosexuality/heterosexuality binary* (the belief that people is divided into these two categories. It is important to highlight that all of the components included in Hegarty and Pratto's (2001) measure refer to the originally conceptualized Natural Kind dimension. No items from the entitativity dimension were included

Hegarty and Pratto (2001) found that beliefs about sexual orientation vary along two dimensions, one of which corresponded to beliefs about the immutability and the other, to beliefs about the fundamentality or discreteness of sexual orientation. Consistent with Haslam's findings, the fundamentality dimension correlated negatively with the immutability dimension, suggesting that the underlying structure of beliefs about sexual orientation may be different from that of beliefs about other social categories like race. Additionally, while believing that sexual categories were deeply different and binary was associated with greater prejudice, believing in the immutability of sexual orientation correlated negatively with the prejudice measure (ATLG measure), suggesting that it may be associated with greater tolerance. Hearty and Pratto also had participants read a bogus "scientific" report on the relation between sexual orientation and birth order which led participants to believe that sexual orientation was fixed across their life span. They found that the assimilation of arguments in favor of biological determinism was explained significantly by immutability, but not by the belief in the fundamentality of sexual

orientation. That is, participants that were led to believe that sexual orientation was fixed across their life span were more likely to be impressed by biological determinist claims, but not by fundamentality arguments. According to Hegarty and Pratto (2001) these later finding suggests that fundamentality beliefs may play a different role in shaping attitudes toward gay persons, such that they allow people motivated to differentiate positively their ingroup, to discriminate in favor of it.

Based on these findings, Haslam and Levy (2006) put forward the possibility that beliefs in the biological basis and immutability of sexual orientation (which share an emphasis in fixity and biological determinism) are associated with tolerance whereas beliefs about fundamentality or the discreteness of sexual orientation (which share an emphasis on underlying similarities and informativeness) are associated with greater prejudice. They conducted three studies testing the structure of beliefs about sexual orientation and its predictive capacity for prejudice against gay men and lesbians. Previous studies had been conducted mainly among college students, and with rather small samples, which raised some doubts about their generalizability (see Hegarty & Pratto, 2001). Thus, in order to increase the generalizability of their results, Haslam and Levy (2006) used large college samples (over 300) in the first two studies, and extended the application of measures to a community sample in the third study. To test the conceptual structure of essentialism, they relied on (and improved) older measures created by Haslam et al. (2000, 2002) and Hegarty and Pratto (2001). In the first study, they examined attitudes toward only gay males, in the second and third studies toward gay male and lesbians. Like Hegarty and Pratto (2001), Haslam and Levy (2006) found that essentialist beliefs about sexual orientation have mixed implications for prejudice

against gay persons depending on their specific content. Immutability and universality beliefs were found to predict tolerance toward gay men and lesbians whereas fundamentality (here defined as discreteness) was found to predict greater prejudice against them (ATLG scale, Herek, 1994).

Consistently Jayaratne et al. (2006) found a positive relation between the belief in biological determination (similar to immutability), and tolerance toward gay men and lesbians. In a study conducted among 600 White Americans recruited through a nationwide telephone survey, they had participants rate the extent to which they believed that genetic differences explained sexual orientation. Their findings suggest that the more respondents used genetic factors to explain sexual orientation differences, the less prejudice and discrimination they reported against gay persons.

Taken together, results from these studies suggest that different meanings of the conceptual structure of essentialism (biological basis, immutability and discreteness) relate differently to antigay prejudice though originally conceived of as part of the same underlying dimension: natural kinds. This could be a reflection that the structure of essentialist beliefs, and therefore its implications for tolerance or intolerance vary across social categories.

Accordingly, this research attempts to provide further evidence that different meanings and implications of essentialism arise because of how essentialist beliefs about race and sexual orientation are organized differently across target groups in one's culture.

Perceiver characteristics. In the same way that perceiver characteristics may help explain differential uses of essentialism in terms of racial attitudes, perceiver

characteristics can help us understand differential uses of essentialism as applied to sexual orientation. There is some evidence that perceivers' gender, play a role in shaping attitudes toward gay men and lesbians. Thus, heterosexual men seem more biased against gay persons than heterosexual women. For example, Jayaratne et al. (2006) found that gender significantly predicted differences in prejudice and discrimination against gay men and women. Hegarty and Pratto (2001) provided evidence that men scored higher on the ATLG (Attitudes Toward Lesbian and Gay people) scale than women. Haslam and Levy (2006) also found evidence of gender differences whereby male participants revealed significantly greater prejudice (ATLG scale) than female participants against gay men. Further, Haslam and Levy (2006) showed that essentialism dimensions partially accounted for associations between gender and antigay attitudes such that, fundamentality mediated the relation between gender and prejudice, suggesting that male heterosexuals believe gay male sexual orientation to be more discrete than female heterosexuals. I will test the moderational role of gender on the relation between essentialist beliefs and prejudice toward the social categories of our concern.

Summary

Evidence suggest that there are mixed findings on the relation between essentialism and sexual prejudice, with some studies indicating that some essentialist beliefs (immutability, fixity, early determination and biological basis) correlate positively with tolerance toward gay men and lesbians (Haslam & Levy, 2006; Hegarty & Pratto, 2001; Jayaratne et al. 2006; Keller, 2005), whereas other components of essentialism (fundamentality, uniformity, informativeness and inherence) correlate with intolerance

toward gay men and lesbians (Haslam et al., 2002; Haslam & Levy, 2006; Hegarty & Pratto, 2001).

There is some evidence that perceivers' gender plays a role, too. Heterosexual men seem to hold more bias against gay persons than heterosexual women (Hegarty & Pratto, 2001; Haslam & Levy, 2006; Jayaratne et al., 2006; Keller, 2005). This difference may be mediated by men's tendency to view sexual orientation as more discrete than women (Haslam & Levy, 2006).

An integrative social developmental perspective

As noted earlier, Levy et al. (2005) proposed an integrative social developmental model to account for lay theories with more than one intergroup implication. It was inspired by interactionist approaches from developmental psychology such as social domain theory (e.g., Killen et al., 2002; Turiel, 1998) and ecological theories (e.g., Bronfenbrenner, 1979; 1986) and from social psychology such as social identity and self-categorization theories (e.g., Hogg & Abrams, 1988; Tajfel & Turner, 1979). Together, these theories highlight that individuals interact with and are nested within many potentially different environments. People of different social categories (e.g., age, race, gender) may differentially receive and respond to messages about whether to use the tolerant or intolerant meaning of a lay theory such as essentialism. Consistently, social identity theory indicates that people are motivated to positively evaluate salient social identities, and thus, they will react to threats to their social identities and self-esteem in certain contexts with prejudice toward other groups (see Abrams & Hogg, 1988; Hogg & Abrams, 1988; Tajfel & Turner, 1979; Turner et al., 1987). Consistently, the lay theory

of essentialism may serve social and psychological needs such as bolstering one's self-esteem and lending support for one's values (e.g., for a review, see Levy, Chiu, et al., 2006). Thus, people will likely use the meaning of a lay theory that is personally relevant. The same meaning of a lay theory need not apply to all groups or at all times.

Consistent with this model, the aforementioned review of research on essentialism suggests that the meaning of essentialism changes across target groups and also depends on the characteristics of the perceiver. Essentialism as captured by the beliefs in biological basis, immutability, discreteness and informative potential seems to play a central role in predicting prejudice towards these social groups. Accordingly this investigation attempts to provide evidence of the independent effects of some of these beliefs on prejudice toward African Americans and gay men and how the lay theory of essentialism may take on different meanings depending on the perceiver group, that is a lower status ingroup (African Americans, gay men) or a higher status outgroup (European Americans, heterosexuals).

Chapter 2. Testing the role of essentialist beliefs on racial and sexual prejudice.

Overview

The main goal of this dissertation was to test the causal relation between essentialism and prejudice taking into account that essentialism may hold multiple intergroup meanings that may be called upon differently across perceiver and target groups. Indeed, essentialism has been discussed as a cause of prejudice against African Americans and gay men. However, very few experimental manipulations have been attempted. These exceptions, which were reviewed above, include experimental manipulations of the in Genetic Determination (Keller, 2005) and entity theory (Levy et al., 1998) in predicting prejudice and stereotyping toward African Americans, and belief in biological basis and immutability (Hegarty & Pratto, 2001) in predicting the assimilation of biological arguments about gay men. Yet, to my knowledge, several essentialist beliefs have not been manipulated and pitted against one another in a single experiment to assess their relative causal impact on prejudice.

Hence, using an experimental design, this dissertation aimed to isolate the impact of the key beliefs from the conceptual structure of essentialism in the social psychological literature (biological basis; immutability, entity theory; discreteness and inductive potential or informativeness) and assess their impact on prejudice. As reviewed, these beliefs have shown a robust relation with prejudice toward racial and sexual orientation minorities. In this dissertation, the salience of each of the five main

essentialist beliefs (biological basis, immutability, entity theory, discreteness and inductive potential; one per condition) was increased, by asking participants to read an induction article pertaining to each of them (based on past inductions, Hegarty & Pratto, 2001; Keller, 2005; Levy et al., 1998), and then the impact of the articles was assessed on participants' prejudice levels.

Findings on the relation between these five essentialist beliefs and prejudice across two target groups (African Americans and gay men) were compared.

One caveat consists in that while putting together the articles for each experimental condition, it became clear that at least in one case, the argument could turn out to be rather vacuous (e.g., the argument that *people cannot change their racial membership*) and therefore hard to defend. For this reason, the immutability manipulation was dropped from the experimental design for the racial condition. Thus, for the race condition, rather than 5 essentialist beliefs I induced only 4 essentialist beliefs (biological basis, entity theory, discreteness and inductive potential). A control condition was included for both the racial and sexual orientation conditions. Thus, the experimental design consisted of 6 conditions (5 salient essentialist beliefs (four in the case of race) plus a control) x 2 target groups (African Americans vs. gay men).

Second, I examined whether the impact of essentialism on prejudice varies according to the characteristics of the perceivers (e.g., status, ingroup identification, and gender). As noted earlier, some research findings suggest that relative social status (outgroup vs. ingroup of the minority group), ingroup identification, and gender may moderate the relation between essentialism and prejudice. Thus, I attempted to replicate those results and extend on that work.

I was particularly interested in the role of relative status, and thus examined whether evaluations differed according to ingroup (African American, gay men) or outgroup membership (European American, heterosexual). Most studies on the relation between essentialism and prejudice have been conducted among majority groups. That is, among White Europeans in the U.S. (and other countries as well) and heterosexual population. Only a couple of studies actually collected data from the lower status, ingroup members (see Verkuyten, 2003; Verkuyten & Brug, 2004). While these studies suggested interesting hypothesis in terms of the moderation of the relation between essentialism and prejudice by in-group identification and status, there were limitations of generalizability imposed by their design (nature of the sample and dependent measures) that also suggest that these conclusions need further testing. Thus, this experiment aimed at reaching numerical minority samples (African Americans and gay men) allowing for a closer examination of the role of variables such as group's relative status and in-group identification in moderating the relation between essentialist beliefs and prejudice, while examining the effects of each of five essentialist beliefs (four in the case of African Americans) on attitudes toward their groups.

Hypotheses

It should be noted that my hypotheses concern differences between each essentialist belief or experimental condition, and the control condition. I did not have specific hypotheses about one essentialist belief, for example, being superior to another essentialist belief in predicting prejudice because each essentialist belief is expected to roughly represent a unique or independent component of essentialism.

Hypothesis 1: The salience of essentialist beliefs (biological basis, immutability, entity theory, discreteness and informative potential) were expected to have a significantly different impact on prejudice levels depending on the target group, African Americans and gay men. This hypothesis builds on Haslam's (2002) correlational evidence suggesting that people tend to essentialize differently social categories, such that African Americans are highly naturalized whereas gay people are highly evaluated on the entitativity dimension, and that essentialism may hold implications for prejudice.

Hypothesis 1a: Based on some previous research, greater prejudice toward African Americans was expected to be caused by the salience of beliefs in the biological basis (see Jayaratne et al., 2006; Keller, 2005), entity theory (see Levy et al., 1998), discreteness (Keller 2005; Verkuyten & Brug, 2004), and informative potential (Keller, 2005).

Hypothesis 1b: On the basis of some previous research, weaker prejudice toward gay men was expected to be caused by the salience of beliefs in a biological basis to sexual orientation (Jayaratne et al., 2006), entity theory (Haslam & Levy, 2006; Hegarty & Pratto, 2001), and immutability of sexual orientation (Haslam & Levy, 2006; Hegarty & Pratto, 2001). Deriving from some previous research, greater prejudice toward gay men was expected to be caused by beliefs in the discreteness (Haslam & Levy, 2006; Hegarty & Pratto, 2001) and informativeness of sexual orientation (Haslam & Levy, 2006)

Characteristics of the perceiver.

Hypothesis 2: On the basis of previous findings suggesting that that perceiver characteristics moderate the effect of essentialism on prejudice toward ethnic minorities

(Haslam & Levy, 2006; Keller, 2005; Verkuyten & Brug, 2004), I hypothesized that the salience of essentialist beliefs (biological basis, immutability, entity theory, discreteness, and informative potential) should have a significantly different impact on prejudice levels toward both African Americans and gay men depending on the perceivers' characteristics.

Hypothesis 2a: On the basis of preliminary research showing that group status plays a role in essentialist beliefs' impact on prejudice (Verkuyten & Brug, 2004), I predicted that group status will moderate the relation between the salience of essentialist beliefs and prejudice towards African Americans and gay men, such that members of the high status outgroups (European Americans and Heterosexuals) will express greater prejudice towards African Americans and gay men than members of the lower status ingroups (African Americans and gay men).

Hypothesis 2b: Likewise, drawing on previous research showing that males tend to express greater prejudice than females (Haslam & Levy, 2006; Jayaratne et al., 2006; Keller, 2005;), I predicted a significant gender difference such that the higher status group (males) will tend to express greater prejudice than the lower status group (females) towards both African Americans and gay men. Because gender was not the main perceiver variable of interest, gender was included as a covariate in analyses.

Hypothesis 2c: Building on previous research showing that ingroup identification moderates the relationship between essentialist beliefs and tolerance toward ethnic minorities (Verkuyten & Brug, 2004), I predicted that the effect of essentialist beliefs on prejudice toward African Americans and gay men will be significantly moderated by perceivers' ingroup identification such that those reporting lower ingroup identification

should report lower prejudice than those reporting higher ingroup identification. Because ingroup identification was not the main perceiver variable of interest, ingroup identification was included as a covariate in analyses.

Method

Participants

One thousand eighty-five participants were recruited from a community sample in the five boroughs of New York City to participate in this experiment. Twenty-one surveys were removed from the analysis because participants were interrupted while completing the survey (e.g., an incoming cell phone call, interruption from nearby friend or passerby). Additionally, across conditions, 171 participants were removed from the analyses because their surveys were mostly incomplete (e.g. participants did not fill in their status or completed the dependent measures). Across conditions, an additional 29 participants were removed from the analyses because their responses appeared suspicious; that is, participants' responses reflected patterned responses (e.g., 1, 1, 1, 1; 1, 2, 3, 4). Moreover, 84 participants were removed from analyses because they did not correctly summarize the induction article in their survey packet, suggesting that the essentialist belief described in the article was not successfully made salient. Furthermore, across conditions, participants were removed from analyses based on their ratings of the induction articles; that is, they were removed if they reported that they did not understand the article at all ($n = 3$) or if they reported that they did not believe the article at all ($n = 65$).

In the race condition, 59 participants were removed from the analyses because they neither identified themselves as European American nor African American,

the two groups under study. In the sexual orientation condition, 39 female participants were removed from the analyses because they identified themselves as anything other than exclusively heterosexual; the two groups under study were gay men and heterosexuals. The remaining sample, included in subsequent analyses, is described in Tables 1a and 1b below. For this remaining sample, participants' age range varied from 18 to 93 ($M = 30.44$). 85% reported having lived in the U.S. all their life. 15% reported not having lived in the U.S. all their lives with mean number of years living in the U.S. = 17.6; $SD = 12.85$) and their average age being 33.3 years ($SD = 12.85$). In terms of education, 2.1% of the participants reported having completed less than high school, 8.8 % high school, 25.8 % some college, 38.8 % college, 6.8 % some graduate school and 18.1 % having completed graduate school. Thus 63.7 % of the sample had completed at least college. Participants were also asked to self-report their best guess of their approximate income or economic status: 2.8 % reported being poor, 13.4% poor to middle class, 53.5 % middle class, 25.2 % middle class to wealthy, and 5.1 % reported being wealthy.

Table 1a. Number of Participants in the Race Condition

Experimental Condition	European Americans	African Americans
	(Males / Females)	(Males / Females)
Biological Basis	(11 / 10)	(7 / 8)
Entity Theory	(16 / 13)	(12 / 13)
Informativeness	(7 / 9)	(14 / 9)
Discreteness	(9 / 14)	(13 / 7)
Control	(21 / 16)	(23 / 3)

Total	(64 / 62)	(69 / 40)
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Table 1b. Number of Participants in the Sexual Orientation Condition

Experimental Condition	Heterosexuals	Gay Men
	(Males / Females)	(Males / Females)
Biological Basis	(38 / 15)	(12/0)
Entity Theory	(35 / 12)	(13/0)
Immutability	(29 / 23)	(16/0)
Informativeness	(28 / 9)	(9/0)
Discreteness	(28 / 16)	(9/0)
Control	(41 / 30)	(17/0)
Total	(198 / 105)	(76/0)

Experimental Manipulations:

The experimental manipulations consisted of short inductions articles (word count average: 354 words), which were modeled after previous induction articles (e.g., Keller, 2005; Levy et al., 1998) and designed to look like newspaper articles, presenting research findings in support of one essentialist belief: biological basis, immutability, entity theory, discreteness, or informative potential. The induction articles are included in the appendix. Induction articles for biological basis, immutability, discreteness, and informative potential were group specific. That is, they referred to either race or sexual orientation. The induction article for entity theory however, was not group specific consistent with previous inductions of the entity theory (e.g., Chiu et al., 1997; Levy et al., 1998; Plaks et

al., 2001). Participants in the 2 control conditions (1 for race condition, 1 for sexual orientation condition) received no induction article before completing the dependent measures.

Measures

Below is a description of the measures immediately following the induction article. The measures are listed in the order in which the measures were completed by participants. (All measures are included in the Appendix)

Manipulation Checks. Participants were asked to summarize the content of the article in a space provided to them on the survey packet page immediately following the article. Trained research assistants reviewed the summaries for whether participants correctly summarized the article. As noted above, participants who were unable to correctly summarize the article were removed from subsequent analyses.

Assessment of prejudice toward Gay Men. To assess prejudice toward gay men, Herek's (1994) Attitudes toward Gay Men scale was used which was used in previous work on the essentialism (Haslam et al., 2002; Haslam & Levy, 2006, Hegarty & Pratto, 2001) and thus allow for comparison to previous research findings. A sample item is "I think male homosexuals are disgusting". This scale contains 10 items scored on a 6-point Likert scale each (1= *very strongly disagree*, 6 = *very strongly agree*), which in this experiment had a Cronbach's alpha of .90 . Items were summed and averaged such that higher number indicated greater prejudice.

Assessment of Prejudice toward African Americans. Prejudice toward African Americans was assessed using 7 items from the Anti Black Attitudes by Katz and Hass

(1988), which was used in previous work on the essentialism by Haslam et al. (2000, 2002), and thus allow for comparison to previous research findings. A sample item is “Black children would do better in school if their parents had better attitudes about learning” Participants rated the items on a 6-point Likert scale each (1= *very strongly disagree*, 6 = *very strongly agree*). Three of the original 10-item scale were not presented to participants because they had shown lower discriminative capacity or were highly redundant with other items in the scale (see Katz & Hass, 1998). These items include: “On the whole, Black people don’t stress education and training”; “Blacks don’t seem to use opportunities to own and operate little shops and business”; “Blacks should take jobs that are available and then work their way up to better”). Furthermore, after conducting preliminary analyses it was found that 2 of the 7 items were not reliable (“Very few Black people are just looking for a free ride”; “Most Blacks have the drive and determination to get ahead”) and thus those items were dropped leaving a 5 item scale with Cronbach’s alpha of .75. Those 5 items were summed and averaged such that higher numbers indicate greater prejudice.

Ingroup identification. For the race condition, a 12-item version of the Multigroup Ethnic Identity Measure developed by Phinney (1992) was used as an indicator of ingroup identification. Participants were asked to rate the extent of their agreement with a set of 12 statements scored on a 6 point Likert scale each (1= *very strongly disagree*, 6= *very strongly agree*). This measure was used in other studies of relevance to this study, on the relation between essentialism and prejudice (see Verkuyten & Brug, 2004). For participants in the sexual orientation condition, the questions of the Multiethnic Identity Measure were modified slightly, such that they referred to “sexual orientation” rather

than “ethnic” groups. We chose to use the modified version of Phinney’s scale because most scales of identification with a sexual orientation group tend to refer to the individual process of accepting and declaring their sexual identity, and thus they refer to the individual rather than group identity.

Checks on the understanding and belief in the articles. To check on participants’ understanding and belief in the articles, participants were asked: “How much did you understand the article that you read? How much did you believe the article that you read?” 0 (*not at all*) to 5 (*a great deal*). As noted earlier, participants who reported that they did not understand the article at all or that they did not believe the article at all were removed from all subsequent analyses.

Demographic information. The demographic information questionnaire contained single items assessing gender, age, sexual orientation (1 = *exclusively heterosexual*; 2 = *more homosexual than heterosexual*; 3 = *Equally heterosexual and homosexual*; 4 = *more homosexual than heterosexual*; 5 = *exclusively heterosexual*), ethnicity (1 = *African American*; 2 = *Asian/ Pacific Islander*; 3 = *Caucasian White*; 4 = *East Indian*; 5 = *Hispanic/Latino* and 6 = *other*), education (1 = *less than*; 2 = *some high school*; 3 = *high school*; 4 = *some college*; 5 = *college*; 6 = *some graduate school*; 7 = *graduate school*); family income (1 = *poor*; 2 = *poor to middle class*; 3 = *middle class*; 4 = *middle class to wealthy*, 5 = *wealthy*), and number of years living in the U.S.

Procedure

In an effort to have a community sample reflecting New York city, surveys were collected throughout the five boroughs of New York: Manhattan (e.g. Central Park,

Union Square, Washington Square, Grand Central Station, Chelsea, Manhattan Mall and the West Village); at Harlem (YMCA Community Center, Marcus Garvey park); Queens (Queen Center Mall, Juniper Park, Jackson Heights, Saint Albans); Brooklyn (Prospect Park, Sunset Park; DHS Shoppers Mall); and Staten Island (Staten Island Mall) and Bronx (Bronx Park by Fordham University). In each borough, data were collected for all conditions.

A team of eight research assistants (working mostly in pairs) approached potential participants and invited them to participate in a study about “people’s beliefs about social groups.” Research assistants first showed potential participants a consent letter containing more detailed information about the experiment and then gauged their interest in participating in the study. Research assistants made sure to emphasize the anonymous nature of the study before leaving the participants alone to answer the survey. Research Assistants kept their distance from the participants, typically at least 10 feet away. To provide some privacy while answering the questionnaire, yet, they kept themselves within then sight of the participant in order to be able to provide assistance when required, collect surveys, and monitor the process. Additionally to emphasize anonymity, the cover page of the questionnaire packet in large bold letters reminded participants that “All responses are completely anonymous. Please DO NOT write your name on this package”.

Participants were instructed to read the “newspaper article” on the first page, and then proceed to complete the rest of the questionnaire packet. Following the article, a half-page long space was provided where participants were instructed to briefly summarize the article they just read. Immediately after, the questionnaire packet contained the

dependent measures for prejudice (ATG from Herek [1994] for the sexual orientation condition; or the Anti-Black scale from Katz and Hass [1988]). On the next page was the ingroup identification measure (Multigroup Ethnic Identity Measure, Phinney [1992] for the race condition and adapted version was given for the sexual orientation condition). On the final pages were the questions concerning participants' understanding and belief in the articles and demographic questions.

Once participants had completed the "survey packet", they were debriefed about the nature of the study. They were told that this was an experiment to evaluate how specific ideas affected their beliefs about certain social groups and that the newspaper article, although based loosely on ideas in social discourse, was not a scientific article. Further, it was emphasized that this was a complex issue and that a variety of articles reflecting different viewpoints were given to other participants. While there was no payment for participating in the study, participants were offered a candy bar as a gesture of appreciation and thanked.

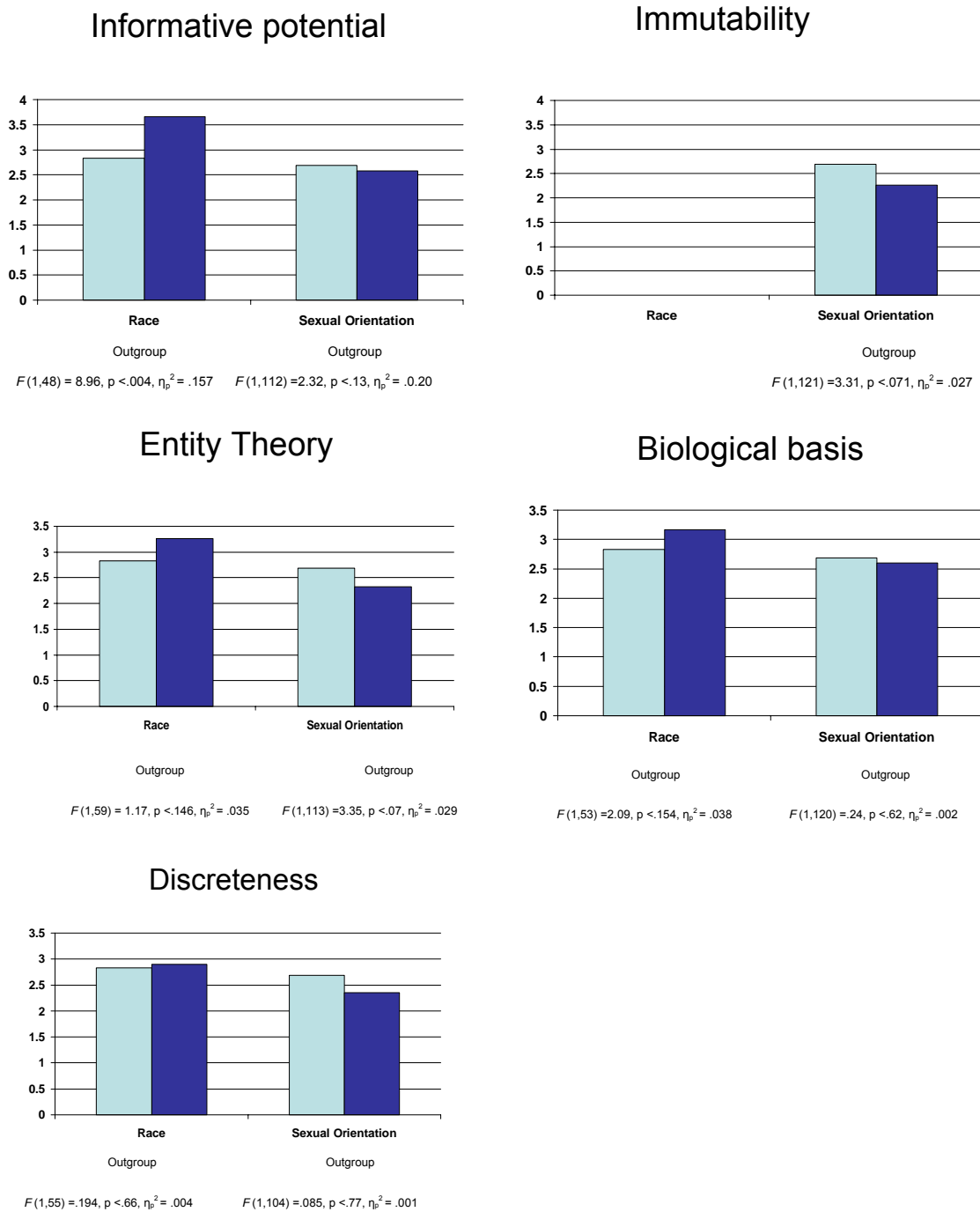
Results

Main analysis: Essentialist beliefs, target group, and relative status of respondent predicting prejudice: (Hypotheses 1, 2, 2a, 2b, and 2c)

First, I tested my main, overall hypothesis concerning the expected causal impact of salient essentialist beliefs on racial and sexual prejudice as a function of target group and relative status of participant group. A 6 (essentialist condition; biological basis, immutability, entity theory, informativeness, discreteness, and control; note that the race condition did not include the immutability manipulation) X 2 (target group: African Americans vs. gay males) x 2 (relative status of participant, low status ingroup or high

status outgroup) analysis of variance (ANOVA) was performed, including gender and ingroup identification as covariates. As predicted (hypotheses 2a, 2c and 2g), this analysis revealed a significant three-way interaction between manipulated essentialist belief, target group, and relative status of the participants, $F(4, 583) = 2.52, p < .04, \eta_p^2 = .017$. Also, there was a marginally significant two-way interaction between essentialist belief and relative status of the participants, $F(5, 583) = 1.96; p < .83, \eta_p^2 = .017$ and a non-significant two-way interaction between essentialist belief and target group, $F(4, 583) = 0.37, p = .82, \eta_p^2 = .003$, (see Figure 1, for a comparison of the effect of raising the salience of essentialist beliefs on racial and sexual prejudice). Furthermore, there was a significant two-way interaction between target group and relative status of the participants, $F(1, 583) = 29.67, p < .001, \eta_p^2 = .048$, with low status groups ($M = 3.38, SD = 1.25$), reporting *higher* prejudice than high status group ($M = 3.10, SD = 0.98$) in the race condition, (this surprising finding is discussed later in the general discussion) but the lower status group ($M = 1.45; SD = 0.55$) reporting *lower* prejudice than high status group ($M = 2.49, SD = 1.21$) in the sexual orientation condition. Also, there was a non-significant main effect for essentialist belief, $F(5, 583) = .31, p = .91, \eta_p^2 = .003$. Additionally, there was a significant main effect for target group, $F(1, 583) = 163.75, p < .001, \eta_p^2 = .219$, with higher reported prejudice toward African Americans ($M = 3.23, SD = 1.11$) than toward gay men ($M = 2.28, SD = 1.20$). Furthermore, there was a significant main effect for relative status of group, $F(1, 583) = 28.35; p < .001, \eta_p^2 = .046$, with the lower status ingroup ($M = 2.59, SD = 1.39$), as would be predicted, reporting lower prejudice toward their own group than higher status outgroup ($M = 2.66, SD = 1.18$). Finally, gender was revealed to be a significant covariate, $F(1, 583) = 22.39,$

Figure 1. The effect of raising the salience of essentialist beliefs on racial and sexual prejudice: A comparison across conditions.



Note: the columns on the left refer to the control condition for each type of prejudice.

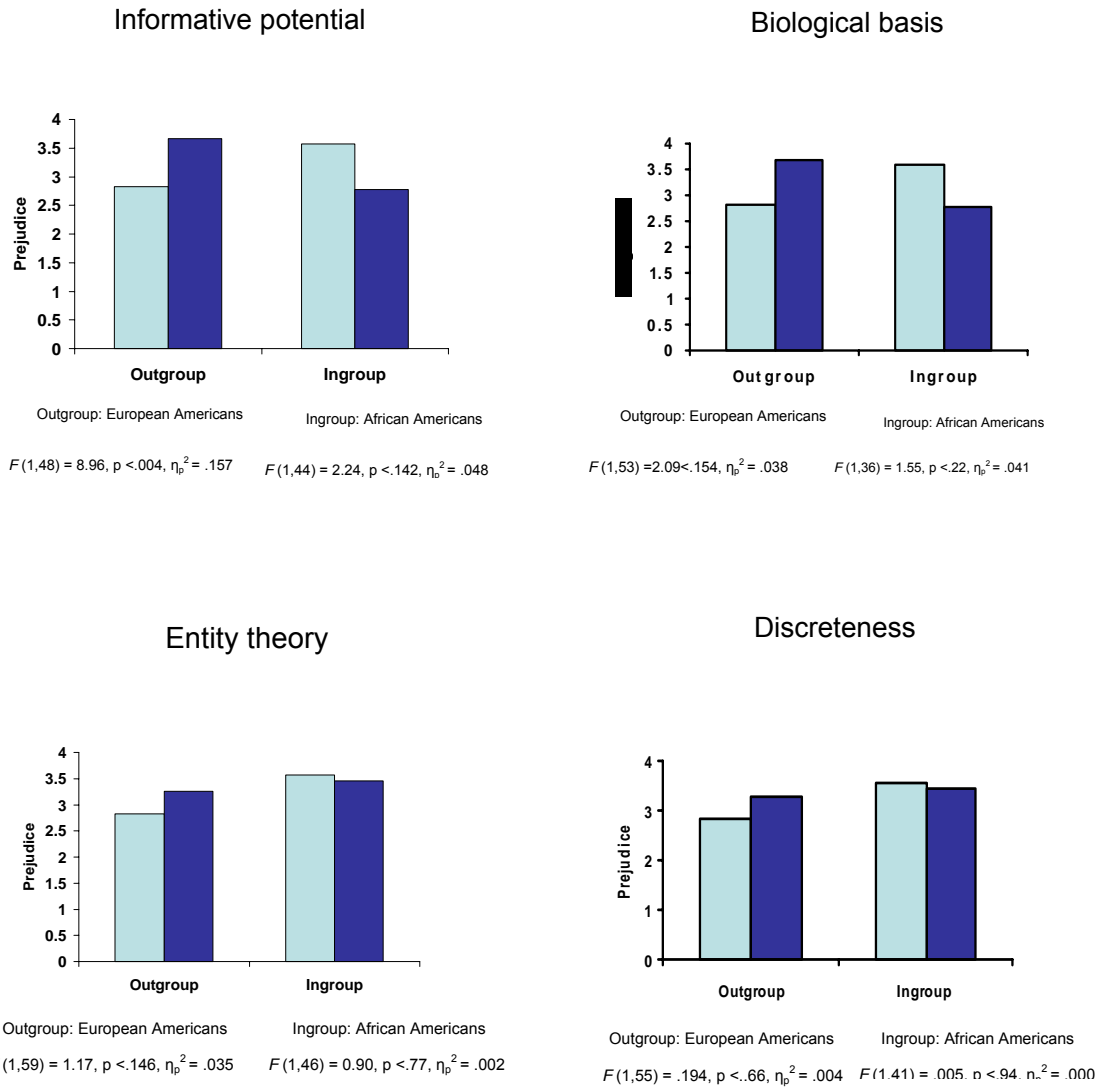
$p < .001$, $\eta_p^2 = .037$, with women ($M = 2.57$, $SD = 1.09$), reporting lower prejudice than men ($M = 2.7$, $SD = 1.32$), which is consistent with hypothesis 2b. Also, ingroup identification was revealed to be a significant covariate, $F(1, 583) = 23.98$, $p < .001$, $\eta_p^2 = .040$, with those reporting lower ingroup identification ($M = 2.44$, $SD = 1.13$), as predicted (hypothesis 2c) reporting lower prejudice than those reporting higher ingroup identification ($M = 2.76$, $SD = 2.64$).

I next conducted a series of analyses to better understand the significant three-way interaction between manipulated essentialist beliefs, target group, and relative status of the participants in predicting prejudice. For ease of presentation, follow up analyses are organized below according to racial prejudice and then sexual prejudice.

Follow-up-analyses concerning Racial Prejudice: (Hypotheses 2a, 2b, and 2c)

To better understand the findings for those participants assigned to the race condition, I conducted a 5 essentialist condition (biological basis, entity theory, informativeness, discreteness, control) X 2 (relative status of participant, low status ingroup [African American] or high status outgroup [European American]) ANOVA predicting prejudice toward African Americans with gender and ingroup identification as covariates. As predicted (hypothesis 2), this analysis yielded a significant two-way interaction between manipulated essentialist belief and relative status of the participants, $F(4, 219) = 3.97$; $p < .004$, $\eta_p^2 = 0.68$, (see Figure 2, for a comparison of the effect of raising the salience of essentialist beliefs on racial prejudice among high and low status participants). Also, there was a non-significant main effect for essentialist condition, $F(4, 219) = 0.79$; $p = .58$, $\eta_p^2 = .013$ and a non-significant main effect for relative status of group, $F(1, 219) = 0.48$, $p < .48$, $\eta_p^2 = .002$. Finally, in this two-way ANOVA,

Figure 2. The effect of raising the salience of essentialist beliefs on racial prejudice: A comparison between high and low status groups



Note: the columns on the left refer to the control condition for each group status.

gender (hypothesis 2b) was a significant covariate $F(1, 219) = 14.262; p < .001, \eta_p^2 = .061$, with women ($M = 2.9, SD = 1.04$), as expected, reporting lower prejudice than men ($M = 3.45, SD = 1.13$) whereas ingroup identification (hypothesis 2c) was unexpectedly not a significant covariate, $F(1, 219) = 2.24, p = .13, \eta_p^2 = .01$.

I next followed up on the significant two-way interaction between essentialist belief and relative status of the participants by conducting one-way ANOVAs on manipulated essentialist beliefs predicting racial prejudice among African American and European American participants separately.

European Americans: (Hypotheses 1a). For European Americans, a one-way ANOVA of 5 manipulated essentialist beliefs predicting racial prejudice toward African Americans revealed the predicted significant effect (hypothesis 1), $F(4, 116) = 2.92, p = .02, \eta_p^2 = .092$: biological basis belief condition ($M = 3.17, SD = 0.75$), informative potential belief condition ($M = 3.67, SD = 0.99$), discreteness belief condition ($M = 2.90, SD = 0.84$), entity theory belief condition ($M = 3.26, SD = 0.89$), control condition ($M = 2.83, SD = 1.13$). Next, I conducted a series of ANOVAs comparing each experimental condition to the control condition because my predictions concerned each experimental condition impacting prejudice compared to the control condition, not compared to the other experimental conditions (other essentialist beliefs). Each essentialist belief is expected to represent roughly a unique or independent component of essentialism.

These ANOVAs revealed a significant effect such that European American community participants who read the informativeness induction article (hypothesis 1a) reported higher prejudice toward African Americans than those European Americans assigned to the control condition, $F(1, 48) = 8.95, p < .004, \eta_p^2 = .157$. This confirms the expectation that the belief in the informative potential of the racial category leads to greater racial prejudice (hypothesis 1a). This belief has not been manipulated in previous research on essentialism and prejudice toward African Americans and thus, this finding builds on previous research by providing strong evidence that the belief in the

informative potential of the category leads to more racial prejudice among European Americans.

Additionally consistent with past findings with an induction of the entity theory with Australian and U.S. college samples (Levy et al., 1998), European American community participants who read the entity theory induction article (hypothesis 1a) reported higher prejudice toward African Americans than those European Americans assigned to the control condition, however, this effect missed traditional levels of significance, $F(1, 59) = 2.16, p < .15, \eta_p^2 = .035$.

Further in line with past results with an induction of biological basis with German college students (e.g., Keller, 2005), European American community participants who read biological basis induction article (hypothesis 1a) reported higher prejudice toward African Americans than those European Americans assigned to the control condition; this effect also missed traditional levels of significance, $F(1, 53) = 2.10, p < .15, \eta_p^2 = .038$.

Finally, European American participants who read the discreteness belief induction article (hypothesis 1a) did not report different levels of prejudice than those in the control condition, $F(1, 55) = .19, p < .66, \eta_p^2 = .004$. This is consistent with Haslam et al.'s (2002) finding among U.S. college participants, that essentialist beliefs belonging to the natural kinds dimension of essentialism were unrelated to racial prejudice against African Americans. However, this belief has not been experimentally manipulated before.

African Americans: Exploratory Analyses. For African American participants, a one-way ANOVA of the 5 manipulated essentialist beliefs predicting racial prejudice toward their own group revealed a non-significant effect, $F(4, 101) = 2.05; p < .092$,

$\eta_p^2 = .075$: biological basis belief condition ($M = 3.71, SD = 1.24$), informative potential belief condition ($M = 2.77, SD = 1.26$), discreteness belief condition ($M = 3.51, SD = 1.16$), entity theory belief condition ($M = 3.50, SD = 1.19$), and control condition ($M = 3.57, SD = 1.28$). This confirms my hypotheses (2a) that the inductions would impact European Americans, the higher status outgroup, more so than the lower status ingroup, African Americans. Further exploratory analyses conducting one way ANOVAS on each belief indicate that none of them significantly predict prejudice towards African Americans among African American participants. It should be noted, however, that although missing traditional levels of significance, the difference in reported prejudice between those in the informative potential condition and control condition, $F(1, 44) = 2.24; p = .14; \eta_p^2 = .048$ are roughly consistent with the idea that informative potential may reduce ingroup prejudice and Verkuyten and Brug's (2004) findings that low status groups may use essentialist beliefs to support arguments in their own favor. Additionally, the manipulated belief in the discreteness of the category $F(1, 41) = 0.01; p = .94; \eta_p^2 = .000$, biological basis $F(1, 36) = 1.55; p = .22; \eta_p^2 = .041$ and an entity theory $F(1, 46) = 0.09; p = .77; \eta_p^2 = .002$ revealed no significant effects on prejudice.

Follow-up analyses concerning Sexual Prejudice: (Hypotheses 2a, 2b, 1b)

To better understand the findings for those participants assigned to the sexual orientation condition, I conducted a 6 manipulated essentialist belief (biological basis, entity theory, informativeness, discreteness, immutability, control) X 2 (relative status of participant, low status ingroup [gay men] or high status outgroup [heterosexuals]) ANOVA predicting prejudice toward gay men with ingroup identification as a covariate

Contrary to predictions (hypothesis 2a), this did not yield a significant two-way interaction between essentialist belief and relative status of the participants, $F(5, 362) = 1.06, p < .38, \eta_p^2 = .014$. Also, there was a non-significant main effect for essentialist belief, $F(5, 362) = .218; p < .95, \eta_p^2 = .003$. Additionally, there was a significant main effect for relative status of group, $F(1, 362) = 54.555; p < .001, \eta_p^2 = .132$ with low status ingroups ($M = 1.45, SD = .554$), as expected, reporting less prejudice than high status outgroups ($M = 2.49, SD = 1.22$). Additionally, in this two-way ANOVA, ingroup identification was revealed to be a significant covariate, $F(1, 362) = 27.8, p < .001, \eta_p^2 = .071$, such that consistent with hypothesis 2c those reporting lower ingroup identification ($M = 2.06, SD = 1.04$), reported lower prejudice than those reporting higher ingroup identification ($M = 2.39, SD = 1.24$).

Although I failed to find a significant two-way interaction between essentialist belief and relative status of the participants, I nonetheless conducted exploratory one-way ANOVAs on essentialist beliefs predicting prejudice toward gay men for heterosexuals (men and women) and for heterosexual men only (see Figure 3). I pursued these exploratory analyses because the sample of gay men was small in the overall analysis including all participants assigned to the sexual orientation condition and because there is a sizable literature, as reviewed earlier, suggesting I should find that essentialist beliefs held by heterosexuals predict lower prejudice toward gay men. I also pursued exploratory analysis on heterosexual men only, because there may be differences between male and female heterosexuals in their judgments of males' sexual orientation that are worth exploring. Despite the small sample, I also report exploratory analyses of gay male participants.

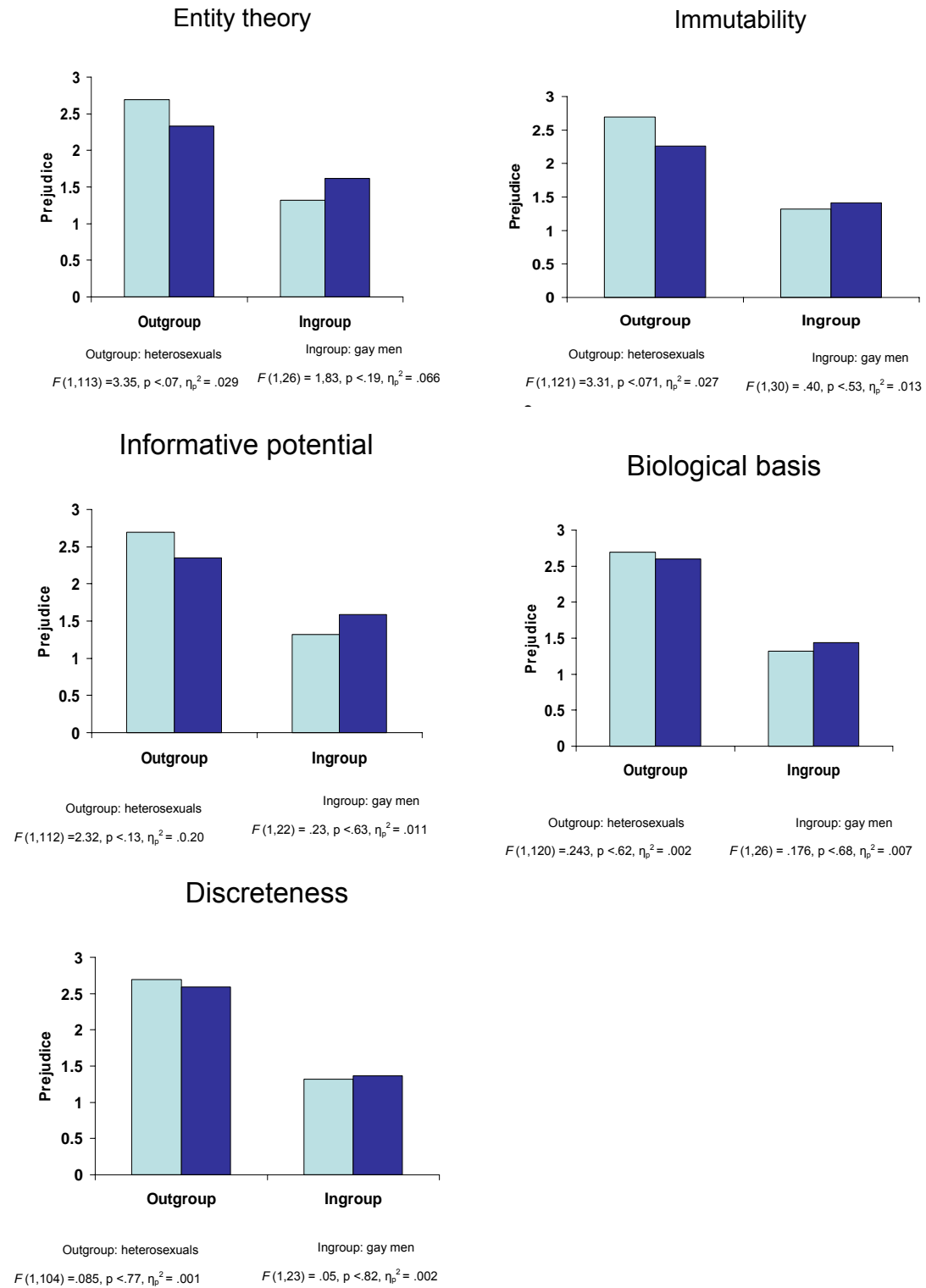
Heterosexuals: Exploratory Analyses (Hypotheses 1b). For heterosexuals, a one-way ANOVA of 6 manipulated essentialist beliefs predicting prejudice toward gay men revealed a non-significant effect of manipulated essentialist belief, contrary to predictions (hypothesis 1b), $F(5, 292) = 1.42$; $p = .22$, $\eta_p^2 = .024$: Biological basis belief condition ($M = 2.60$, $SD = 1.35$), informative potential belief condition ($M = 2.60$, $SD = 1.10$), discreteness belief condition ($M = 2.35$, $SD = 1.23$), entity theory belief condition ($M = 2.33$, $SD = .96$), immutability belief condition ($M = 2.28$, $SD = 1.07$), and control condition ($M = 2.69$, $SD = 1.38$). Despite the non-significant result for all experimental conditions, I continued with exploratory analyses with a series of ANOVAs comparing each experimental condition to the control condition to understand whether any of the experimental conditions differed from the control condition as anticipated from prior research.

Although missing traditional levels of statistical significance, heterosexual participants who read the entity theory and immutability articles (hypothesis 1b) reported lower prejudice toward gay men than those heterosexual participants assigned to the control condition, $F(1, 113) = 3.35$, $p < .07$, $\eta_p^2 = .029$ and $F(1, 121) = 3.31$, $p < .07$, $\eta_p^2 = .027$. These findings are consistent with previous research findings from Hegarty and Pratto (2001) suggesting that early determinacy, essential identity, and adult fixity are components of essentialism that may have an effect on prejudice toward gay people, all of which share an emphasis in immutability, and with Haslam and Levy's (2006) finding that the immutability factor relates to greater anti-gay attitudes. In contrast, heterosexual participants who read the biological basis article (hypothesis 1b) did not report different levels of prejudice from the control condition, $F(1, 120) = .24$, $p < .66$, $\eta_p^2 = .002$, thus

failing to bring support to Jayaratne et al.'s (2006) finding that the belief that genes explain sexual orientation correlates negatively with discrimination against gay people. However, Jayaratne et al. did not attempt to manipulate experimentally the salience of the essentialist belief.

Additionally, contrary to expectations, heterosexual participants who read the informativeness article did not report higher sexual prejudice (hypothesis 1c) than the control condition, $F(1, 112) = 2.31, p = .13, \eta_p^2 = 0.20$, the finding was slightly in the direction of lower prejudice. If significant, this would be contrary to previous findings broadly relating the beliefs in the discreteness and informative potential of the category to greater prejudice toward gay people (Haslam et al., 2002; Haslam & Levy, 2006; Hegarty & Pratto, 2001). Yet, none of these studies attempted an experimental manipulation of this essentialist belief. Additionally, participants who read the discreteness article (hypothesis 1b) did not report different levels of prejudice than those in the control condition, $F(1, 104) = 0.85, p < .77, \eta_p^2 = .021$. Following previous studies (Haslam & Levy, 2006, Hegarty & Pratto, 2001), I had hypothesized that participants who read the discreteness article should report higher levels of prejudice.

Figure 3. The effect of raising the salience of essentialist beliefs on sexual prejudice: A comparison between high and low status groups



Note: the columns on the left refer to the control condition for each group status.

Next, I conducted exploratory analysis on the independent effects of raising the salience of each essentialist belief on prejudice toward gay men, exclusively among heterosexual men.

Exploratory Analyses Among Heterosexual Men Only. For Heterosexual men, a one-way ANOVA of 6 essentialist beliefs predicting sexual prejudice toward gay men missed traditional level of significance for main effect, $F(5, 189) = 1.87$; $p = .10$, $\eta_p^2 = .047$: biological basis condition ($M = 2.7$, $SD = 1.51$), informative potential condition ($M = 2.52$, $SD = 1.01$), discreteness condition ($M = 2.5$, $SD = 1.44$), entity theory condition ($M = 2.44$, $SD = 0.95$), immutability condition ($M = 2.37$, $SD = 1.00$), and control ($M = 3.11$, $SD = 1.40$). Next, I conducted an exploratory analysis with a series of ANOVAs comparing each experimental condition to the control condition. Contrary to expectation (hypothesis 1c), this revealed a significant effect for informativeness yielding lower sexual prejudice toward gay men than control condition, $F(1, 66) = 4.5$; $p = .04$. $\eta_p^2 = .065$ among heterosexual men. This analysis also revealed a significant effect for entity theory and immutability conditions (hypothesis 1b) yielding lower sexual prejudice toward gay men than control condition, $F(1, 71) = 6.64$; $p = .01$. $\eta_p^2 = .086$ and $F(1, 67) = 5.35$; $p = .02$. $\eta_p^2 = .074$ among heterosexual men. Additionally, this analysis revealed that the belief in a biological basis (hypothesis 1b) yielded lower sexual prejudice toward gay men than control condition, $F(1, 76) = 2.64$; $p = .11$. $\eta_p^2 = .034$, yet it missed traditional levels of significance.

Gay men: Exploratory Analyses (Hypotheses 2a). For gay male participants, a one-way ANOVA of 6 essentialist beliefs predicting prejudice toward gay men revealed a non significant effect of essentialist belief, $F(5, 67) = 0.44$; $p = .82$, $\eta_p^2 = .011$:

Biological basis belief condition ($M = 1.44$, $SD = 0.79$), informative potential belief condition ($M = 1.37$, $SD = 0.38$), discreteness belief condition ($M = 1.59$, $SD = 0.61$), entity theory belief condition ($M = 1.62$, $SD = 0.66$), immutability belief condition ($M = 1.41$, $SD = 0.44$), and control condition ($M = 1.32$, $SD = 0.54$). Despite the non-significant result across conditions, I continued with exploratory analyses with a series of ANOVAs comparing each experimental condition to the control condition to understand whether any of the experimental conditions differed from the control condition consistent with the expectation that (if any) each essentialist belief has independent effect on sexual prejudice.

None of the essentialist beliefs manipulated in this experiment had significant effects on increasing or decreasing prejudice against gay men among gay men. Participants who read the entity theory, $F(1, 26) = 1.832$, $p = .188$, $\eta_p^2 = .066$; biological basis, $F(1, 26) = 0.18$, $p < .68$, $\eta_p^2 = .007$; informativeness, $F(1, 22) = .23$, $p < .63$, $\eta_p^2 = .011$; discreteness, $F(1, 23) = 0.05$, $p = .82$, $\eta_p^2 = .002$; and immutability, $F(1, 30) = 0.40$, $p < .53$, $\eta_p^2 = .013$ articles, did not report different levels of prejudice than those participants in the control condition. Hence, participants in the low status group that were exposed to arguments in favor of essentialist beliefs did not report different levels of prejudice than the control condition, which is roughly consistent with my expectation that essentialist beliefs would have less of an impact on the prejudice levels of members of low status ingroups as it does among members of the outgroup majority (although unfortunately, I did not find significant results for heterosexuals as I had expected).

Chapter 3

General Discussion

Lay theories are central to processes of social thought and behavior and thus, the study of lay theories is important for understanding intergroup relations. The lay theory of essentialism is at the heart of the debate about the nature of the differences between groups. This debate in American society often focuses on groups such as African Americans and gay men as an attempt to understand why these groups are marginalized. Some of the questions concerning essentialism include: Is sexual orientation determined by genes? Can a gay person become heterosexual? Are African Americans and European Americans biologically different? Do African Americans and European Americans hold the same intellectual capacity? However, the relation between holding these essentialist beliefs and holding prejudice toward such groups has been mixed, such that essentialism sometimes supports greater prejudice and other times supports greater tolerance towards these groups. Drawing on social-developmental theorizing about lay theories (e.g., Levy et al., 2006; Levy et al., 2005), this dissertation aimed to reveal a more consistent, predictable relation between essentialism and prejudice when the nature of the target group (African Americans vs. gay men) and some characteristics of the perceiver (low or high social status in American society; ingroup or outgroup membership) are taken into consideration.

To do so, I considered the main essentialist beliefs studied in prior research including beliefs about a biological basis, immutability, entity theory, discreteness, and informative potential. Also, by using an experimental design in which the salience of these beliefs was manipulated unlike most of the prior research in which the essentialist

beliefs were measured, I aimed to draw some causal conclusions about the relation between essentialism and prejudice. Finally, by recruiting a community sample rather than sampling the more typical college sample used in essentialism research, I hoped to draw conclusions that have wider generalizability.

Different Essentialist beliefs, different target groups and different types of prejudice

Findings from a large community sample in New York City indeed showed that it is important to consider the contributing roles of different essentialist beliefs, types of prejudice, and groups of respondents to better understand the relation between essentialism and prejudice. Supporting my first hypothesis, essentialist beliefs (biological basis, immutability, entity theory, discreteness, and informative potential) had different intergroup implications depending on the type of prejudice or the target group, African Americans and gay men. Generally, I found that essentialist beliefs tend to lead to greater prejudice toward African Americans but lower prejudice toward gay men (see figure 4). This is the first investigation to my knowledge to show in one experiment that different essentialist beliefs promotes different levels of prejudice depending on the group (e.g., African Americans, gay men) under investigation. As noted earlier, an inconsistent pattern of findings emerged from prior research that examined the causal relation between essentialism and intergroup attitudes toward one of these groups in a single study (e.g., Keller, 2005; Levy et al., 1998), the correlational relation between essentialism and intergroup attitudes toward more than one group (e.g., Haslam et al., 2002; Keller, 2005; Jayaratne et al., 2006), or how essentialist beliefs were applied differently to target groups without a focus on the relation between essentialism and prejudice toward those groups (e.g., Haslam et al., 2000; 2002). Results from this

dissertation for the most part replicated and extended this past work to reveal a more consistent pattern of results for the relation between different essentialist beliefs and different types of prejudice

To elaborate, I found that the salience of the belief in the informative potential of race significantly predicted an increase in prejudice toward African Americans, consistent with Haslam et al.'s (2000) and Keller's (2005) correlational research relating racial prejudice with the entitativity dimension among college students in the U.S. and Germany, respectively. In contrast, the salience of the belief in the informative potential did not prejudice toward gay men, inconsistent with my expectation and with past correlational research with U.S. and German college students (Haslam et al., 2002; Haslam & Levy, 2006). Haslam et al. (2002), found that the belief in the informative potential significantly predicted prejudice toward gay men among students from a Midwestern college in the U.S. Additionally, Haslam and Levy (2006, study 3) found that the belief in the informative potential of the category as a component within several essentialist beliefs concerning discreteness, which in turn predicted negative attitudes toward gay people, among U.S. participants from a New York suburb in the U.S.. This inconsistency may be due to the fact that in these studies the belief in informative potential was not considered on its own but rather as part of several beliefs. Additionally, this inconsistency may be explained by the differences in where the research took place, a suburban area versus a major city in which there is likely a good deal more contact between heterosexual and gay men. In this sense, New York City, because of its great diversity, may be outstandingly different from other places where research linking informative potential with antigay attitudes has taken place, possibly with more

homogeneous populations (e.g. a small conservative Midwestern liberal arts college, in Haslam et al.'s study).

I also found that increasing the salience of the belief in a biological basis led to greater racial prejudice (though not significantly), consistent with past correlational research with German college students and among adult U.S. population suggesting a significant relation between the belief in the biological basis and prejudice toward racial and ethnic minorities (Keller, 2005; Jayaratne et al., 2006). It is also consistent with experimental research among German college students (Keller, 2005) where increasing the salience of the belief in genetic determination, using an experimental induction that emphasized the distribution of genetic characteristics among the population in Europe, increased German students' negative attitudes against people from Eastern Europe. I also found that increasing the salience of the belief in the biological basis of sexual orientation did not significantly lead to weaker sexual prejudice as hypothesized, which is inconsistent with Hegarty and Pratto (2001) and Haslam and Levy (2006) past correlational research with U.S. college students, and Jayaratne et al. (2006) correlational research with U.S. adult population. Hegarty and Pratto (2001) as well Haslam and Levy (2006) found that beliefs about sexual orientation loaded strongly in two underlying factors, one emphasizing beliefs in biological basis, immutability and fixedness of sexual orientation and the other emphasizing beliefs in the discreteness of the sexual category, the first of which correlated negatively with prejudice toward gay people. However, this finding is consistent with Haslam et al.'s (2001) finding that the belief in the naturalness of the category (which includes the belief in the biological basis) had no independent effect in predicting prejudice toward gay people.

Additionally, I found that increasing the salience of the entity theory promoted greater racial prejudice (though it did not reach traditional levels of significance), consistent with Keller's (2005, study 2) correlational findings among German college students and with Levy et al.'s (1998) experimental research with U.S. college students, and weaker sexual prejudice, which is consistent with research suggesting that some aspects of the natural kinds dimension of essentialism that share and emphasis on fixity and early determination, like immutability and entity theory, should correlate positively with tolerance toward gay people (Haslam & Levy, 2006; Hegarty & Pratto, 2001). These researchers did not test directly the effect of entity theory (but immutability) on sexual prejudice, however, I predicted this relationship on the basis of the conceptual similarity between immutability and entity theory (see Haslam, Bastian, et al., 2006)

Also consistent, with past findings (Haslam & Levy, 2006; Hegarty & Pratto, 2001), I found evidence that increasing the salience of the belief in immutability weakened prejudice against gay men. The effects of immutability on racial prejudice were not tested in this experiment because as noted earlier the argument that people could not change their identity turned out to be vacuous and thus this induction lacked credibility.

Finally, I found that the increasing the salience of the belief in the discreteness of race did not relate to racial prejudice, which is line with Haslam et al.' (2002) past correlational research among U.S. college students suggesting that none of the beliefs of the natural kinds dimension predicted racial prejudice. I did not make predictions on the relationship between increasing the salience of this belief and racial prejudice. Also,

increasing the salience of the belief in the discreteness did not relate to sexual prejudice, which contradicts past results from correlational studies from Hegarty and Pratto (2001) and Haslam and Levy (2006) suggesting that the belief in discreteness of sexual orientation leads to greater prejudice toward gay people.

Thus, taken together, my results help bridge past research and show a more consistent pattern. It is not the case that essentialist beliefs relate to both greater and lesser prejudice and thus have no predictive validity; essentialism beliefs have a more predictable pattern when taking into account the target group.

At the same time, findings from this dissertation must be considered in light of the specific population of participants under study. Namely, the above results are specific to a higher status outgroup evaluating a lower status ingroup. That is, the pattern of findings for the relation between essentialism and racism specifically pertain to European Americans judging African Americans but not African Americans judging their own group. Although not as strong as the race findings, the pattern of findings for the relation between essentialism and sexual orientation specifically pertain to heterosexuals judging gay men but not gay men judging their own group.

Causal relation between different essentialist beliefs and prejudice

Moreover, findings from this dissertation bring added support to prior research (e.g., Keller, 2005; Levy et al, 1998) claiming a *causal* relation between these essentialist beliefs and prejudice toward African Americans and gay men. A previous literature review had shown a few examples where researchers attempted to manipulate the salience of an essentialist belief and found some evidence of a causal relation. However,

this evidence was restricted to two essentialist beliefs, like the belief in genetic determination (Keller, 2005) and the belief in an entity theory (Levy et al., 1998).

Although the essentialism-related articles that participants read were brief, many participants (i.e., that is, those included in analyses) were able to successfully summarize the essentialist belief in the article with generally the expected impact on prejudice levels. The relative ease with which I was able to induce these essentialist beliefs in the community via newspaper-like articles suggests that such essentialism arguments were already available to participants. Indeed, this is the first investigation to my knowledge to show that essentialist beliefs can be successfully manipulated in the community with predicted effects. At the same time, results from this dissertation illustrate that prior research on essentialism with college students generally is applicable to wider community population, at least in the New York area of the U.S.

Further, this experiment's evidence supports the intuition of the multiple intergroup implications of essentialism. Indeed, in this research, the salience of each of five essentialist beliefs was manipulated using exactly the same article but changing only the target group. This is consistent with Jayaratne et al.'s (2006) study among U.S. adult population where the belief that differences between Blacks and Whites in the U.S. are gene-determined correlated positively with prejudice toward Black people, while belief that differences between gay and heterosexual people in the U.S. are gene-determined correlated with greater prejudice toward gay men and women. However, to my knowledge, this is the first study to test the causal relation between the salience of this (biological basis) and other essentialist beliefs (entity theory, immutability, informative potential and discreteness) and racial and sexual prejudice.

The results of this experiment among a community sample in New York manipulating the salience of several essentialist beliefs simultaneously, suggest that while thinking about racial groups, people seem to rely on the natural kinds dimension of essentialism emphasizing the biological basis of differences between racial groups for greater prejudice (Bastian & Haslam, 2006; Jayaratne et al., 2006; Kashima et al., 2005) but, when thinking about gay men, people seem to rely on the natural kinds dimension of essentialism emphasizing more strongly the fixity and immutability aspects of sexual orientation for greater prejudice.

Characteristics of the perceivers: high status outgroup vs. low status ingroup

Most research on essentialism and prejudice has been from the perspective of high status groups judging lower status groups. However, everyone in a culture is expected to be exposed to essentialist arguments and thus studying how all members of a society view, interpret, and use essentialist beliefs is critical. In this dissertation, I took a step in this direction by sampling, unlike previous research, members of the lower status groups that are often the target of prejudice.

Consistent with past research (Verkuyten & Brug, 2004), I found that the effect of essentialist beliefs on prejudice depended on the status of the perceiver, such that high status groups tended to report higher levels of prejudice toward the lower status group when exposed to particular essentialist beliefs. More specifically, essentialist beliefs appear to causally predict prejudice against African Americans and gay men among high status outgroups but not among low status ingroups. In fact, among African American participants, the increasing the salience of the belief in the informative potential of the category, appeared to relate to more tolerance towards the ingroup suggesting that an

essentialist argument can be used to promote tolerance rather than prejudice by members of low status groups. This finding is consistent with Verkuyten and Brug's (2004) finding among White European (ethnic majority or the outgroup), Turkish, Moroccan and Surinamese (ethnic minorities, or ingroup) adolescents from four secondary schools in the Netherlands, that status moderates the relation between the essentialization of ethnic groups and tolerance towards them. That is, among members of the majority group, perceived outgroup essentialism was associated with less tolerance toward minorities. Thus, they argued that unified and coherent minority groups are likely perceived as threatening by the dominant groups which led them to higher reported prejudice. Our findings confirm this intuition by bringing forth evidence that among majority group members -European Americans- more salient essentialist beliefs lead to greater reports of prejudice.

Additionally, the beliefs in the biological basis and entity theory appeared to be unrelated to prejudice towards African Americans among members of the same group. In a previous study, Verkuyten (2003), performed content analysis on videotapes of conversations, in the context of focus groups, between members belonging to the White European majority (outgroup) and members of the ethnic minorities (the ingroup) and found that essentialist arguments brought to bear by members of ethnic minorities in the Netherlands, were characterized by cultural, rather than biological determinism. Thus, it is possible that essentialist beliefs emphasizing the biological aspect of the differences between the groups are not related to members of low status group's accounts of differences between them, but other types of essentialist arguments are.

These findings are consistent with our perspective based on social identity theory (see Tajfel & Turner, 1979), and the intuition of some researchers (e.g. Haslam et al. 2001; Jayaratne et al. 2006; Keller, 2005; and Yzerbyt et al., 1997, 2001), in that the association between essentialist beliefs and category evaluation appears to depend importantly on the salience of the ingroup vs. outgroup status. Thus, evidence from this experiment suggests that the relationship between essentialism and prejudice exposed in previous studies (Jayaratne et al., 2006; Keller, 2005) seems to apply mainly to the majority group perspective. As such, a causal relationship whereby increasing the salience of the beliefs in an entity theory, biological basis and informativeness leads to reports of greater prejudice was found only among European Americans. This in turn brings support for the intuition that high status groups may perceive unified and coherent minority groups as threatening and thus react with greater prejudice towards them.

This experiment's evidence, is consistent as well with the intuition that people from low status groups (the ingroup in this case) may account for their identity in terms of essences (Haslam et al. 2001), that differ qualitatively from those of the dominant groups. For instance, low status groups may view themselves as having a common essence on the basis of arguments of social or cultural determinism rather than biological determinism. Additionally, this evidence does not support the intuition that essentialist beliefs behave as system justifying beliefs (see Jost & Burgess, 2000) among the low status (in) group as posited by Yzerbyt et al. (1997) and Keller (2005). That is, it doesn't suggest that members from low status groups subscribe to the dominant views about their group, adopting essentialism to justify the system they live in.

That is, this experiment suggests that (if anything) some minority groups may use essentialist beliefs (like informative potential) in ways that imply less rather than more prejudice against race groups. This belief has shown a reliable relationship with the entitativity dimension across studies, thus consistent with the intuition that low status groups may conceive their identity in essentialist, yet socially rather than biologically deterministic arguments. Thus, more research is needed on the causal relation between other essentialist beliefs from the entitativity dimension and prejudice toward low status groups among both ingroups and outgroups.

Among participants in the sexual orientation condition, contrary to my expectation, the interaction between essentialist beliefs and status of the group was not significant. Notwithstanding, increasing the salience of the belief in entity theory and immutability led to marginally significant reductions in sexual prejudice among heterosexual population, but not among gay men. However, when the analysis was restricted to heterosexual men only, exposure to entity theory, immutability and informative potential had a significant impact decreasing sexual prejudice. This was also the case for the beliefs in biological basis and discreteness though they didn't reach traditional levels of significance. Among gay men, in contrast, heightening the salience of these beliefs did not seem to have an effect on their reported levels of prejudice.

Thus, findings from this experiment suggest that essentialist beliefs do not relate to sexual prejudice among members of the low status group (gay men) in this condition. Alternatively, it is possible that the low status group (in this case gay men) think of their group in terms other than essentialist beliefs. Evidence in the U.S. (Jayaratne et al., 2006) suggests that essentialist views of gay people tend to be associated with greater tolerance

toward them, on the part of the high status group (heterosexuals). Yet, evidence from a study conducted in India among Aravani men by Mahalingam (2003), suggests that gay men (the low status group) tend to see their own identities are more mutable and fluid, and to tolerate better gender transgressions, which would suggest that in group members do not embrace essentialist views about their group. Thus it is unclear whether gay men would rather adopt either of these arguments, given that both may potentially promote greater tolerance towards them.

In any case, findings suggesting that increasing the salience of essentialist beliefs does not have significant effects on sexual prejudice among gay men are contrary to the intuition raised by Yzerbyt et al. (1997) and Keller (2005) of system justifying beliefs.

Thus, these findings contribute to broaden the knowledge on the relationship between essentialism and sexual prejudice by offering evidence of the role of status (whether ingroup or outgroup) in moderating the causal effect of increasing the salience of essentialist beliefs on levels of sexual prejudice. These findings built on past results from Verkuyten and Brug's by bringing support to their intuition that the relative status of the group should moderate the causal relationship between essentialist beliefs and attitudes of tolerance (or intolerance) toward minority groups. They also built on their results by adding to their findings on the context of the relationship between ethnic groups, these new findings on the context of racial and sexual prejudice. Finally, these findings raise further questions about the nature of the arguments that minority members develop in order to protect their identities that deserve further attention in future study. An important limitation of our sample of gay men that may have critically affected the results is discussed in the limitations section.

Characteristics of the perceiver: Gender and ingroup identification

Results from this dissertation also revealed consistent with my hypotheses that the effect of different essentialist beliefs on prejudice toward African Americans and gay men are in part explained by other perceiver characteristics, namely gender of the perceiver and ingroup identification of the perceiver. Findings from this dissertation replicated and extended past work showing that gender moderates the effect of lay theories on prejudice toward different social categories like African Americans, women and gay people (Haslam & Levy, 2006; Hegarty & Pratto, 2001; Sidanius & Pratto, 1999)

In this experiment for the race condition, I found that women reported less racial prejudice than men when exposed to the beliefs on a biological basis, entity theory, and informativeness of the category. This result is consistent with Keller's (2005, study 1) study in which he found differences in the degree of endorsement of the belief in a biological basis between both genders, such that men reported greater endorsement of the belief in genetic determination. This finding builds on previous ones by suggesting that gender moderates not only the relationship between the belief in biological basis and racial prejudice, but also the relationship between the beliefs in the informative potential and entity theory on racial prejudice. Thus, future research on essentialism and racial prejudice should take into consideration characteristics of the perceiver such as gender.

In this experiment for the sexual orientation condition, I performed no tests for moderation of gender, because the target group included only gay males. However, when women were removed from the analysis, results on the relationship between increasing the salience of each independent essentialist belief and sexual prejudice became more significant, suggesting that women may hold different views about male sexual

orientation than men. Thus, raising the salience of sexual orientation with respect to gay men, may not be as threatening to women as it is to men.

This finding is consistent with evidence provided by Haslam and Levy (2006) among a sample of college students and the community in the Northeast of the U.S.. Haslam and Levy found that the relation between essentialist beliefs and prejudice against gay people was successfully moderated by the beliefs in the discreteness of the category, such that men appeared to think sexual orientation as being more discrete than women. Additionally, in their study, Haslam and Levy found differences in the extent to which, for instance, male participants endorsed prejudice towards gay men and women. Thus, it would require further investigation to identify whether women are also less sexually prejudiced when the target group is more relevant to their identity such as in the case of lesbians, and whether women differ from men in the endorsement of essentialist beliefs about male and female sexual orientation.

Evidence from this experiment also suggests that the effect of essentialist beliefs on prejudice is moderated not only by gender of the perceiver but also by people's level of identification with their ingroup, such that the effect of essentialist beliefs on prejudice is greater among high identifiers among the high status groups, when essentialist beliefs imply a justifying of inequality meaning but not when essentialist beliefs imply a more tolerant meaning. Thus, when exposure to essentialist beliefs is shown to increase prejudice among members of the high status group (European Americans, the outgroup), this effect is stronger among those who identify stronger with their own group (though it missed traditional levels of significance). This pattern of findings is consistent with

Verkuyten and Brug's (2005) intuition about the relation between essentialist beliefs, ingroup identification and tolerance.

Comparatively, when exposure to essentialist beliefs decreases sexual prejudice among members of the high status group (heterosexuals, the outgroup), the effect of increasing the salience of essentialist beliefs on prejudice is weaker among high identifiers than among low identifiers. This pattern of findings is consistent with the expectation that ingroup identification should moderate the relation between increasing the salience of essentialist beliefs and prejudice to allow highly identified members of high status groups to distinguish themselves positively from low status groups in order to favor their group identity. To my knowledge, there are no previous attempts to test this intuition.

Limitations of Experiment and Future Directions

Although encouraging, the findings of the present investigation should be interpreted with some reservation. If on one hand, most findings reflected the hypothesized relationship between raising the salience of essentialist beliefs and prejudice toward African Americans and gay men, significance levels were not as strong as expected and some of the essentialist beliefs (discreteness and informative potential) behaved in the opposite direction as predicted. Also, results for African American and gay male participants were inconclusive. In what follows I discuss first the results for African Americans and gay male participants and then several general limitations of this experiment, including limitations of the articles, of the dependent variables, and of sampling from community sample.

Limitations of articles or design of study

Although one strength of this dissertation is the use of an experimental design to test causality, there are some limitations of the articles used. Thus, I developed articles that discussed alleged evidence supporting each of the investigated essentialist beliefs (biological basis, immutability, and discreteness, informative potential of the category and entity theory). These articles were based on previous inductions developed for entity theory (Levy et al., 1998) and biological basis (Keller, 2005; Hegarty & Pratto, 2001), and were presented as a newspaper article reported recent scientific findings on each essentialist belief. The content of the articles was kept the same cross conditions, changing only the reference to either “racial” or “sexual orientation”.

In previous experiments, researchers offered participants fake articles that tapped on some essentialist belief. In Keller’s (2005) study for instance, the article used to manipulate the salience of the belief in genetic determination emphasized the distribution of genetic characteristics among populations (the article mentions differences between “people living in Scandinavian Lapland, Sardinia, and the Basque people from Northern Spain” yet it mentions no specific ethnic group”). Consistently, Hegarty and Pratto’s (2001) experimental induction consisted of an article on the relation between sexual orientation and birth order without targeting any specific group. Likewise, the inductions used in this experiment cited conclusions of studies about a salient dimension (e.g. difference between races [or sexual orientation groups] are gene determined) without making mention of specific groups (e.g. African Americans or gay men).

One potential problem of this manipulation consists in that, to the extent that the purpose of the article was to tease apart the independent contributions of each essentialist

belief, a great amount of emphasis was put in avoiding confounding between any two essentialist beliefs. This in turn led us to develop more simple arguments. It is possible that a trade off between credibility and simplicity made more people suspect about the veracity of the articles. In fact, in one case (the argument that people can't change their race) this simplicity made the presentation of the article impossible and thus we dropped this one induction from the race condition.

Another obvious limitation of this experiment consists in that it did not include all beliefs hypothesized to be part of the lay theory of essentialism. In order to keep this study feasible, I limited the inclusion of essentialist beliefs in the experiment to those that appeared to have shown a more consistent relationship with prejudice across target groups and experiments and would allow me to see whether some belief shifted in meaning to align with others depending upon the target group as precious evidence suggests. Thus, I included two essentialist beliefs (biological basis and immutability) that were consistently related to the natural kinds dimension (Haslam & Levy, 2006; Haslam et al. 2000; 2002; Keller, 2005). I also, included one essentialist belief (informative potential) that consistently appeared to be related to the entitativity dimension in previous studies (Haslam & Levy, 2006; Keller, 2005), and one that had an ambiguous relation with both dimensions (discreteness). That is, across studies, the belief in the discreteness of the category had been related to the natural kinds dimension (Haslam et al. 2000; 2002) when making judgments about African Americans but also to the entitativity dimension (Haslam & Levy, 2006; Hegarty & Pratto, 2001; Keller, 2005) when making judgments about gay people.

My findings for the beliefs belonging to the natural kinds dimension are, broadly speaking, in line with past findings on the relationship between essentialism and racial prejudice. However, the results in this experiment were surprising in that, in contrast with other studies, the belief in the informativeness and discreteness of the social categories aligned with the other beliefs in the natural kinds dimension to reduce prejudice towards gay men, among heterosexual people). Hence, this data failed to confirm previous findings on the structure of essentialist beliefs about gay people (Haslam & Levy, 2006; Hegarty & Pratto, 2001), that the meaning of the belief in the discreteness of the category shifted to the entitativity dimension (thus aligning with the belief in the informative potential), and thus related with more rather than less prejudice against gay people. Had we had information about other beliefs belonging to the entitativity dimension, we could have made better judgments in this respect.

Thus, more research is required to further examine whether this relationship holds among people in the U.S., but also to determine how other essentialist beliefs from the entitativity dimension relate to prejudice against gay people in the U.S.

Another limitation of the experimental design consisted in not having tested prejudice towards gay women. This obviously limits our ability to make generalization on prejudice against gay people in general. Past findings from Haslam and Levy (2006) suggest that the structure of essentialist beliefs behaves similarly for gay women and men, however, other studies suggest the existence of differences between men and women in their views of sexual orientation about both genders (see for instance, Herek, 2002). Thus, I can not attest to Haslam and Levy's (2006) findings because we did not include lesbians as a target group.

Limitations of the dependent variables

The choice of measure for prejudice for this experiment, was made on the basis of the reliability of these measures in previous findings. In an attempt to provide evidence that would be comparable to previous research findings, I chose to use the Anti-Black scale of the Racial Attitudes Scales, RAS, developed by Katz and Hass (1988) and used by Haslam et al. (2002), among other things because it consists of a 10 item scale that has shown the best reliability in previous studies on essentialism (e.g. $\alpha = .83$ in Haslam et al.'s study), compared to other measures like the Old Fashioned Racism and the Modern Prejudice scales ($\alpha = .55$ and $\alpha = .78$, respectively, in Haslam et al.'s study) or measures that used very few items (see for instance, Jayaratne et al., 2006). Additionally, because this measure was originally developed to measure prejudice among American population and thus offered a better alternative when trying to replicate findings from previous studies in the U.S.

There has been a great deal of variability in the use of measures for racial prejudice in previous studies. In part, this variability can be explained by different characteristics of the populations studied (e.g. African Americans in the U.S. vs. Black people in Germany, or other minorities in Netherlands). Thus, measures need to be validated for the populations being studied. However, this variability makes difficult evaluating these results because it is not known, how much of the inconsistency in findings is due to the variability in the measures.

However, the Anti Black attitude scale's reliability for this study was rather poor ($\alpha = .57$) which let me to drop additional items from the scale. Thus, the final Anti-Black attitude scale used for this study included only 5 out of ten items in the original scale that

showed good reliability. This decision to drop some items from the scale, may have had some effect in reducing the ability of the scale to discriminate some types of prejudice, which in turn may have affected the results on the relationship between essentialist beliefs and prejudice toward African Americans. The case for previous research on sexual orientation, however, has been different, whereby the same measure used in this experiment (Attitudes toward Gay Men, from Herek, 1994) has been used to assess prejudice across studies, and results have shown greater consistency for essentialist beliefs predicting less, rather than more prejudice toward gay men (Hegarty & Pratto, 2001; Haslam & Levy, 2006).

Limitations of a community sample/ data collection.

An important aspect of this research was the collection of data from a community sample (as opposed to a college sample), and from both members of the majority and the minority groups. However, given the nature of the sample, questionnaire packets were kept brief to facilitate that all participants in the sample would be able to fill them out. As a consequence, other measures like a general assessment of tolerance or endorsement of essentialism that would have been very useful for our analysis could not be included. For instance, not having a measure of endorsement of essentialism didn't allow a test that would help determine whether the effect of raising the salience of essentialist beliefs on prejudice would have been stronger among chronic believers of essentialism. Additionally, it would have been interesting to see whether the impact of the exposure to one essentialist belief would spread in raising support for other essentialist beliefs. In the same line of reasoning, a measure of general tolerance would have been useful in identifying whether the effects generalize to other types of tolerance.

Additionally, despite the fact that the experiment package was shortened to better fit the needs of a community sample, some participants felt that it was too much work to have to read an article, write a summary, and then answer the questionnaire. All participants that didn't write the summaries were removed which reduced our sample size. Other participants could not finish the survey or finished the survey but refused to complete the demographic information that included the assessment of variables concerning the characteristics of the perceivers and therefore they had to be removed from the sample as well.

One important aspect of the data collection process consists in that randomly sampling the community of New York did not facilitate obtaining a high number of respondents among the gay population or even among African American participants. Indeed, 29 percent of the sample belonging to the sexual orientation condition reported being gay, compared to 52 percent of people reporting being African American among the race condition. That is, randomly selecting gay people represented a challenge during the data collection process. In addition, it is possible that some gay people may have felt intimidated to reveal their sexual orientation and may have chosen to mark themselves as heterosexuals.

Another difficulty added to the difficulty in randomly collecting data from gay population, consisted in that many people who for the purpose of the analysis was considered "gay" actually identified themselves as being bisexual or feeling somewhere between more heterosexual than homosexual to exclusively homosexual. This may have impacted the results among participants in the sexual orientation condition, to the extent

that there may be important variations in the extent to which these participants endorse essentialist beliefs.

Implications of Findings for Research on Intergroup Relations.

Early understandings of the lay theory of essentialism were characterized by the notion proposed by Allport (1954) in the classic book, *Nature of Prejudice*, that essentialist beliefs are characteristic of prejudiced personalities and by the corresponding implication that essentialist beliefs unequivocally lead to greater prejudice. Since then, researchers on essentialism and intergroup relations have been able to establish that essentialist beliefs do not always relate to prejudice towards social groups, and that endorsement of essentialism is not completely explained by individual differences, but also by the interaction between group identities, and contexts (e.g. cultures). Results from this dissertation contribute to this growing body of work.

Along with other researchers, results from this dissertation help identify some strengths in the conceptual structure of essentialism, such as the strong relation between some components of the lay theory of essentialism, like the beliefs in the biological basis, immutability, and fixity of social categories but also some inconsistencies in the conceptual structure, that appear to be explained, in part, by a combination of individual and group characteristics that moderate the use of essentialist beliefs. Consistently, understanding the circumstances under which people rely on certain kinds of arguments, or what arguments are useful to justify their views, whether equalizing or not, is important because they continue to shape, through exposure and communication the manner in which other people (e.g. young people, people new to the culture) relate to other relevant social categories.

This experiment has brought about evidence that contrary to the original expectations of some researchers and theorists in the field (Haslam et al. 2000, 2002; Keller, 2005; Rothbart & Taylor, 1992) essentialist beliefs do not have univocal implications. That is, believing in the biological basis, immutability, fixity and informative potential of differences between social groups, does not unequivocally lead attitudes legitimizing unequal status and discrimination toward certain social groups. This research has shown that believing in the biological basis, immutability, fixity and informative potential of differences between social groups, can lead to positive attitudes towards certain social categories like gay men. Thus, essentialist beliefs, while (correctly or not) acknowledging deep inherent differences between social categories, do not necessarily justify discrimination against them.

My findings also bring support for the intuition that belief systems reflect motivational underpinnings (Keller, 2005) and Social Identity Theory (Tajfel & Turner, 1979). Thus, rather than focusing on the consistency between personality characteristics and endorsement of essentialist beliefs, these findings bring support for the intuition that social perceivers are motivated to express more prejudice when their status as members of a dominant group is threatened, and more so, when the evaluation of the groups is of personal relevance. Consistently, high identifiers are more sensitive to these threats. However, people have multiple identities and not all of them are equally salient when making judgments about a certain group. Thus, more research is needed in order to establish the flexibility or essentialist and the moderation that context may exert upon the relationship between essentialism and other types of prejudice.

Thus far, however, this and other past research (Haslam & Levy, 2006; Haslam, Bastian et al. 2006) suggest that essentialism, like other broad domain lay theories widely accepted in U.S. and other western cultures like Germany (Keller, 2005), the Netherlands (Verkuyten & Brug, 2004); Belgium and Chile (Estrada et al. 2004) may serve to accommodate prejudice and tolerant arguments towards different social groups. However, despite a few examples (Hegarty & Pratto, 2001, Tee & Hegarty, 2005) more research is needed in order to establish other uses of essentialism that may be dependent upon its practical implications such as supporting or rejecting the civil rights of other stigmatized groups in the U.S., promoting equalizing policies for other minorities, or identifying life stages and situations under which people may be more motivated to endorse system legitimizing ideologies.

Conclusion

Research on essentialism has a great deal to contribute to the empirical and theoretical understanding of people's perceptions about the nature of human groups and their implications for intergroup relations. Whether people attribute other people's behavior to natural differences or to social constraints has implications for how people should be judged and treated. Findings from this dissertation have shown evidence that essentialist arguments as perceived by members of the higher status majority groups have implications for social toward members of marginalized groups in U.S. society. However, there is no simple relation between essentialism arguments and social attitudes. Whether essentialism arguments promote greater prejudice or greater tolerance importantly depends on the specific essentialist argument, target group, and

characteristics of the perceiver. More research is needed taking in consideration other target groups (e.g., Latinos, Asians women, elder, psychiatric patients), the role of other moderating variables (e.g. age, status, ideology), across different contexts (e.g., cultures) and situations where essentialist beliefs implications may play a functional role (life cycles, parenting), to give us a better understanding of the pivotal role essentialism plays in intergroup relations and the mechanisms of communication of essentialist beliefs and their implications.

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Appendix 1: Package including alleged “scientific” articles for experimental conditions and measures to be applied to participants in the RACE CONDITION for examining beliefs about race. The cover page appears on all conditions of the experiment.

All responses are completely anonymous.

Please do not write your name on this packet.

Are Differences between Racial Groups Gene-determined?

By Ruth Adler

WASHINGTON

There has long been an important debate about how to best understand race. After decades of research, scientists on all sides of the debate have now reached the same conclusion: differences between racial groups can be largely attributed to genetic differences.

Last month, appearing as the premier article in the *Journal of Science*, an article reported the results of the most comprehensive study on this topic thus far. The evidence is convincing. The study was conducted by a team of researchers at Oxford University in England. For more than twenty-five years, this team has followed eight hundred individuals. The researchers identified them at birth and have been collecting elaborate data on them since, including birth records, family tree, school records, extensive observations at home, school, and in the laboratory, and in-depth interviews with the individuals, their family members, and close friends.

In an interview, Dr. Lawrence Bailey, the lead investigator of the Oxford team, summarized the study findings in the following way: "it is possible to differentiate population groups based on differential frequencies of genes in distinct population groups and thus to identify genetic categories that map on to racial groups."

This conclusion has been supported by many other small-scale

studies conducted in numerous cultures. Similar conclusions were drawn by Dr.

Paula Medin, a psychologist at the National Institute on Mental Health in the United States. In her speech at the American Psychological Association's annual convention held in Washington, D.C. in August, Dr. Medin argued that "racial differences are innate, genetically-based differences."

Dr. Medin's conclusions about racial differences are based on six longitudinal studies published between 1978 and 2000, including two of her own. All six had considerably different samples and rationales, but "were nearly unanimous in their conclusions on the biological basis of racial differences," she said.

To conclude, research findings from a wide range of studies converge to one major conclusion: *Research on the differences between racial groups will profit enormously from the incorporation of genetic data material in the analyses.*

Knowing someone's race tells you a lot about them.

By Ruth Adler

WASHINGTON

There has long been an important debate about how to best understand race. After decades of research, scientists on all sides of the debate have now reached the same conclusion: that you can tell a lot about a person by knowing their race. Once you can identify some important aspects about a person, like their race, you can make more accurate judgments about them.

Last month, appearing as the premier article in the *Journal of Science*, an article reported the results of the most comprehensive study on this topic thus far. The evidence is striking. The study was conducted by a team of researchers at Oxford University in England. For more than twenty-five years, this team has followed eight hundred individuals. The researchers identified them at birth and have been collecting elaborate data on them since, including birth records, family tree, school records, extensive observations at home, school, and in the laboratory, and in-depth interviews with the individuals, their family members, and close friends.

In an interview, Dr. Lawrence Bailey, the lead investigator of the Oxford team, summarized the study findings in the following way: "When knowing a person's race, it is possible to get a picture of the kind of person they are very quickly".

This conclusion has been supported by many other small-scale

studies conducted in numerous cultures. Similar conclusions were drawn by Dr. Paula Medin, a psychologist at the National Institute on Mental Health in the United States. In her speech at the American Psychological Association's annual convention held in Washington, D.C. in August, Dr. Medin argued that "generally speaking, once you know a person's race, it is possible to predict how they will behave".

Dr. Medin's conclusions about homosexuality are based on six longitudinal studies published between 1978 and 2000, including two of her own. All six had considerably different samples and rationales, but were nearly unanimous in their conclusions that "identifying someone's race makes it easier to make accurate judgments about their behavior across different situations," she said.

To conclude, research findings from a wide range of studies converge to one major conclusion: *knowing someone's race, tells you a lot about them.*

People belong to a racial group or not.

By Ruth Adler

WASHINGTON

There has long been an important debate about how to best understand race. After decades of research, scientists on all sides of the debate have now reached the same conclusion: that race has clear and sharp boundaries; people belong to a racial group or not.

Last month, appearing as the premier article in the *Journal of Science*, an article reported the results of the most comprehensive study on this topic thus far. The evidence is convincing. The study was conducted by a team of researchers at Oxford University in England. For more than twenty-five years, this team has followed eight hundred individuals. The researchers identified them at birth and have been collecting elaborate data on them since, including birth records, family tree, school records, extensive observations at home, school, and in the laboratory, and in-depth interviews with the individuals, their family members, and close friends.

In an interview, Dr. Lawrence Bailey, the lead investigator of the Oxford team, summarized the study findings in the following way: "People either have the basic attributes of their racial group or they do not."

This conclusion has been supported by many other small-scale studies conducted in numerous cultures. Similar conclusions were drawn by Dr.

Paula Medin, a psychologist at the National Institute on Mental Health in

the United States. In her speech at the American Psychological Association's annual convention held in Washington, D.C. in August, Dr. Medin argued that "there are no middle points: people belong to a racial group or not."

Dr. Medin's conclusions about the boundaries of race are based on six longitudinal studies published between 1978 and 2000, including two of her own. All six had considerably different samples and rationales, but "were nearly unanimous in their conclusions on the sharp distinctions between racial groups," she said.

To conclude, research findings from a wide range of studies converge to one major conclusion: *People belong to a racial group or not.*

People can't change who they are.

By Ruth Adler

WASHINGTON

There has long been an important debate about how to best understand people's character. After decades of research, scientists on all sides of the debate have now reached the same conclusion: "everyone is a certain kind of person, and there is not much that can be done to really change that."

Last month, appearing as the premier article in the *Journal of Science*, an article reported the results of the most comprehensive study on this topic thus far. The evidence is convincing. The study was conducted by a team of researchers at Oxford University in England. For more than twenty-five years, this team has followed eight hundred individuals. The researchers identified them at birth and have been collecting elaborate data on them since, including birth records, family tree, school records, extensive observations at home, school, and in the laboratory, and in-depth interviews with the individuals, their family members, and close friends.

In an interview, Dr. Lawrence Bailey, the lead investigator of the Oxford team, summarized the study findings in the following way: "People can do things differently, but the important parts of who they are can't be changed."

This conclusion has been supported by many other small-scale studies conducted in numerous cultures. Similar conclusions were drawn by Dr. Paula Medin, a psychologist at the National Institute on Mental Health in the United States. In her speech at the American

Psychological Association's annual convention held in Washington, D.C. in August, Dr. Medin argued that "as much as I hate to admit it, you can't teach an old dog new tricks. People can't really change their deepest attributes."

Dr. Medin's conclusions about people's identity are based on six longitudinal studies published between 1978 and 2000, including two of her own. All six had considerably different samples and rationales, but "were nearly unanimous in their conclusions on the stability of people's basic qualities" she said.

To conclude, research findings from a wide range of studies converge to one major conclusion: *people can't really change their basic attributes.*

Manipulation Check

DIRECTIONS. In the space provided below, please summarize the article. That is, write down the main ideas in the article.

These items are taken from Jayaratne et al's (2006)'s measure for traditional prejudice.

(See Jayaratne, T., Ybarra, O., Sheldon, J., Brown, T., Feldbaum, M., Pfeffer, C., & Petty, E., 2006).

Please circle the answer that best reflects your opinion.

1. How bothered would you be if your child or sibling dated a Black person?

Not bothered at all

Very bothered

1 2 3 4 5 6 7

2. How bothered would you be if your child or sibling married a Black person?

Not bothered at all

Very bothered

1 2 3 4 5 6 7

These items are taken from Modern Racial Prejudice Scale from McConahay and Hough (1976).

Please circle the answer that best reflects your opinion.

3. Blacks are too dependent on government help for getting ahead.

Strongly Disagree

Strongly Agree

1 2 3 4 5 6

4. Many groups of Americans overcame discrimination and made it on their own; Blacks should do the same.

Strongly Disagree

Strongly Agree

1 2 3 4 5 6

5. If Blacks don't do well in life, they have only themselves to blame.

Strongly Disagree

Strongly Agree

1 2 3 4 5 6

The Multigroup Ethnic Identity Measure. Phinney, J. (1992).:

In this country, people come from many different countries and cultures, and there are many different words to describe the different backgrounds or ethnic groups that people come from. Some examples of the names of ethnic groups are Hispanic or Latino, Black or African American, Asian American, Chinese, Filipino, American Indian, Mexican American, Caucasian or White, Italian American, and many others. These questions are about your ethnicity or your ethnic group and how you feel about it or react to it. **Please circle the answer that best reflects your opinion.**

1. I am active in organizations or social groups that include mostly members of my own ethnic group.

Strongly Disagree

1

2

3

4

5

Strongly Agree

6

2. I am happy that I am a member of the group I belong to.

Strongly Disagree

1

2

3

4

5

Strongly Agree

6

3. I have a strong sense of belonging to my own ethnic group.

Strongly Disagree

1

2

3

4

5

Strongly Agree

6

4. I have a lot of pride in my ethnic group.

Strongly Disagree

1

2

3

4

5

Strongly Agree

6

5. I participate in cultural practices of my own group, such as special food, music, or customs.

Strongly Disagree

1

2

3

4

5

Strongly Agree

6

6. I feel a strong attachment towards my own ethnic group.

Strongly Disagree

1

2

3

4

5

Strongly Agree

6

Checks on comparability of induction articles

Think back (but don't look) to the article that you read earlier and answer the following questions.

1. How much did you understand the article that you read?

- | | | | | |
|-----------------------------|------------------------|------------------------|----------------------|-------------------------|
| a. didn't understand at all | b. understood a little | c. somewhat understood | d. mostly understood | e. understood very well |
|-----------------------------|------------------------|------------------------|----------------------|-------------------------|

2. How much did you believe the article that you read?

- | | | | | |
|--------------------------|----------------------|----------------------|--------------------|-----------------------|
| a. didn't believe at all | b. believed a little | c. somewhat believed | d. mostly believed | e. believed very much |
|--------------------------|----------------------|----------------------|--------------------|-----------------------|

Demographics

DIRECTIONS. Please answer the important following questions.

1. How old are you? _____
2. What is your gender? Please check one.
 Male Female
3. Your sexual orientation is best described as (check one):
 Exclusively heterosexual
 More heterosexual than homosexual
 Equally heterosexual and homosexual
 More homosexual than heterosexual
 Exclusively homosexual
4. What is your race/ethnicity? (check one):
 African American
 Asian/Pacific Islander
 Caucasian/White
 East Indian
 Hispanic/Latino
 Other _____
5. How many years have you lived in the United States?
_____ OR (check) Entire life
6. What is your highest level of education? (check one)
 Less than high school
 Some high school
 High school
 Some college
 College
 Some graduate school
 Graduate school
7. What is your best guess of the approximate income or economic status of your family? (check one)
 Poor
 Poor to middle class
 Middle class
 Middle class to wealthy
 Wealthy

Appendix 2: Package including alleged “scientific” articles for experimental conditions and measures to be applied to participants in the SEXUAL ORIENTATION condition.

All responses are completely anonymous.

Please do not write your name on this packet.

Are Differences between Homosexuals and Heterosexuals Gene-determined?

By Ruth Adler

WASHINGTON

There has long been an important debate about how to best understand homosexuality. After decades of research, scientists on all sides of the debate have now reached the same conclusion: differences between homosexuals and heterosexuals can be largely attributed to genetic differences.

Last month, appearing as the premier article in the *Journal of Science*, an article reported the results of the most comprehensive study on this topic thus far. The evidence is convincing. The study was conducted by a team of researchers at Oxford University in England. For more than twenty-five years, this team has followed eight hundred individuals. The researchers identified them at birth and have been collecting elaborate data on them since, including birth records, family tree, school records, extensive observations at home, school, and in the laboratory, and in-depth interviews with the individuals, their family members, and close friends.

In an interview, Dr. Lawrence Bailey, the lead investigator of the Oxford team, summarized the study findings in the following way: "it is possible to differentiate population groups based on differential frequencies of genes in distinct population groups and thus to identify genetic categories that map on to sexual orientation groups."

This conclusion has been supported by many other small-scale studies conducted in numerous cultures. Similar conclusions were drawn by Dr. Paula Medin, a psychologist at the

National Institute on Mental Health in the United States. In her Speech at the American Psychological Association's annual convention held in Washington, D.C. in August, Dr. Medin argued that "homosexuality and heterosexuality are innate, genetically-based tendencies."

Dr. Medin's conclusions about homosexuality are based on six longitudinal studies published between 1978 and 2000, including two of her own. All six had considerably different samples and rationales, but "were nearly unanimous in their conclusions on the biological basis of homosexuality," she said.

To conclude, research findings from a wide range of studies converge to one major conclusion: *Research on the differences between homosexuals and heterosexuals will profit enormously from the incorporation of genetic data material in the analyses.*

People are either homosexual or not.

By Ruth Adler

WASHINGTON

There has long been an important debate about how to best understand homosexuality. After decades of research, scientists on all sides of the debate have now reached the same conclusion: that sexual orientation has clear and sharp boundaries; people are either homosexual or heterosexual.

Last month, appearing as the premier article in the *Journal of Science*, an article reported the results of the most comprehensive study on this topic thus far. The evidence is convincing. The study was conducted by a team of researchers at Oxford University in England. For more than twenty-five years, this team has followed eight hundred individuals. The researchers identified them at birth and have been collecting elaborate data on them since, including birth records, family tree, school records, extensive observations at home, school, and in the laboratory, and in-depth interviews with the individuals, their family members, and close friends.

In an interview, Dr. Lawrence Bailey, the lead investigator of the Oxford team, summarized the study findings in the following way: "People either have the basic attributes of homosexuals or they do not."

This conclusion has been supported by many other small-scale studies conducted in numerous cultures. Similar conclusions were drawn by Dr. Paula Medin, a psychologist at the National Institute on Mental Health in the United States. In her speech at the American Psychological Association's annual convention held in Washington, D.C. in August, Dr. Medin argued that "there are no middle points to someone's sexual orientation: people are either homosexual or heterosexual."

Dr. Medin's conclusions about homosexuality are based on six longitudinal studies published between 1978 and 2000, including two of her own. All six had considerably different samples and rationales, but "were nearly unanimous in their conclusions on the sharp distinctions between homosexuals and heterosexuals," she said.

To conclude, research findings from a wide range of studies converge to one major conclusion: *People are either homosexual or they are heterosexual.*

Knowing someone's homosexuality tells you a lot about them.

By Ruth Adler

WASHINGTON

There has long been an important debate about how to best understand homosexuality. After decades of research, scientists on all sides of the debate have now reached the same conclusion: that you can tell a lot about a person by knowing their sexual orientation; once you can identify some important aspects about a person, like someone's homosexuality, you can make more accurate judgments about them.

Last month, appearing as the premier article in the *Journal of Science*, an article reported the results of the most comprehensive study on this topic thus far. The evidence is convincing. The study was conducted by a team of researchers at Oxford University in England. For more than twenty-five years, this team has followed eight hundred individuals. The researchers identified them at birth and have been collecting elaborate data on them since, including birth records, family tree, school records, extensive observations at home, school, and in the laboratory, and in-depth interviews with the individuals, their family members, and close friends.

In an interview, Dr. Lawrence Bailey, the lead investigator of the Oxford team, summarized the study findings in the following way: "When knowing a person's sexual orientation, it is possible to get a picture of the kind of person they are very quickly".

This conclusion has been supported by many other small-scale

studies conducted in numerous cultures. Similar conclusions were drawn by Dr. Paula Medin, a psychologist at the National Institute on Mental Health in the United States. In her speech at the American Psychological Association's annual convention held in Washington, D.C. in August, Dr. Medin argued that "generally speaking, once you know that a person is homosexual it is possible to predict how they will behave".

Dr. Medin's conclusions about homosexuality are based on six longitudinal studies published between 1978 and 2000, including two of her own. All six had considerably different samples and rationales, but were nearly unanimous in their conclusions that "identifying someone's homosexuality makes it easier to make accurate judgments about their behavior across different situations," she said.

To conclude, research findings from a wide range of studies converge to one major conclusion: *Knowing that somebody is homosexual or heterosexual tells you a lot about them.*

People cannot change their sexual orientation.

By Ruth Adler

WASHINGTON

There has long been an important debate about how to best understand homosexuality. After decades of research, scientists on all sides of the debate have now reached the same conclusion: that people's sexual orientation is stable and unchangeable.

Last month, appearing as the premier article in the *Journal of Science*, an article reported the results of the most comprehensive study on this topic thus far. The evidence is convincing. The study was conducted by a team of researchers at Oxford University in England. For more than twenty-five years, this team has followed eight hundred individuals. The researchers identified them at birth and have been collecting elaborate data on them since, including birth records, family tree, school records, extensive observations at home, school, and in the laboratory, and in-depth interviews with the individuals, their family members, and close friends.

In an interview, Dr. Lawrence Bailey, the lead investigator of the Oxford team, summarized the study findings in the following way: "People's homosexuality is fixed and develops consistently along the same path over time." In fact, evidence suggests that "at no time in a person's life is sexual identification likely to change."

This conclusion has been supported by many other small-scale studies conducted in numerous cultures. Similar conclusions were drawn by Dr. Paula Medin, a psychologist at the National Institute on Mental Health in the United States. In her speech at the American Psychological Association's annual convention held in Washington, D.C. in August, Dr. Medin argued that "people age and develop, but they do so on the foundation of enduring characteristics, among them, their sexual orientation."

Dr. Medin's conclusions about homosexuality are based on six longitudinal studies published between 1978 and 2000, including two of her own. All six had considerably different samples and rationales, but "were nearly unanimous in their conclusions on the stability of sexual orientation," she said.

To conclude, research findings from a wide range of studies converge to one major conclusion: *people's sexual orientation is stable and unchangeable.*

People can't change who they are.

By Ruth Adler

WASHINGTON

There has long been an important debate about how to best understand people's character. After decades of research, scientists on all sides of the debate have now reached the same conclusion: "everyone is a certain kind of person, and there is not much that can be done to really change that."

Last month, appearing as the premier article in the *Journal of Science*, an article reported the results of the most comprehensive study on this topic thus far. The evidence is convincing. The study was conducted by a team of researchers at Oxford University in England. For more than twenty-five years, this team has followed eight hundred individuals. The researchers identified them at birth and have been collecting elaborate data on them since, including birth records, family tree, school records, extensive observations at home, school, and in the laboratory, and in-depth interviews with the individuals, their family members, and close friends.

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Dr. Medin's conclusions about people's identity are based on six longitudinal studies published between 1978 and 2000, including two of her own. All six had considerably different samples and rationales, but "were nearly unanimous in their conclusions on the stability of people's basic qualities" she said.

To conclude, research findings from a wide range of studies converge to one major conclusion: *people can't change their basic attributes.*

Manipulation check

DIRECTIONS. Think back (but don't look) to the article that you just read. In the space provided below, please summarize the article. That is, write down the main ideas in the article in your own words.

Sexual orientation identification measure

(Based on Multigroup Ethnic Identity Measure, Phinney J., 1992).

People have different sexual orientations. Some are By sexual, Homosexual, Transexual, Heterosexual, etc. These questions are about your sexual orientation and how you feel about it or react to it.

1- I am active in organizations or social groups that include mostly members of my sexual orientation group.

Strongly Disagree 1 2 3 4 5 **Strongly Agree**
6

2- I am happy that I am a member of the group I belong to.

Strongly Disagree 1 2 3 4 5 **Strongly Agree**
6

3- I have a strong sense of belonging to my own sexual orientation group.

Strongly Disagree 1 2 3 4 5 **Strongly Agree**
6

4- I have a lot of pride in my sexual orientation group.

Strongly Disagree 1 2 3 4 5 **Strongly Agree**
6

5- I participate in cultural practices of my sexual orientation group, such as music, or customs.

Strongly Disagree 1 2 3 4 5 **Strongly Agree**
6

6- I feel a strong attachment towards my own sexual orientation group.

Strongly Disagree 1 2 3 4 5 **Strongly Agree**
6

Check on comparability of the induction articles

Think back (but don't look) to the article that you read earlier and answer the following questions.

1. How much did you understand the article that you read?

- | | | | | |
|-----------------------------|------------------------|------------------------|----------------------|-------------------------|
| a. didn't understand at all | b. understood a little | c. somewhat understood | d. mostly understood | e. understood very well |
|-----------------------------|------------------------|------------------------|----------------------|-------------------------|

2. How much did you believe the article that you read?

- | | | | | |
|--------------------------|----------------------|----------------------|--------------------|-----------------------|
| a. didn't believe at all | b. believed a little | c. somewhat believed | d. mostly believed | e. believed very much |
|--------------------------|----------------------|----------------------|--------------------|-----------------------|

