

# **The Role of Gender and Race in Essentialist Beliefs About Social Categories**

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## **1. Background**

Social categorization refers to the process through which we group individuals based upon social information such as gender, race, ethnicity, and socioeconomic status. Categorizing others based on similar characteristics provides us with information of people who belong to those social groups, allowing us to form social bonds with those who share similar characteristics to us (in-group homogeneity) and create predictions of how we expect people to behave. Despite this, it can lead to stereotyping and biases as we create assumptions about members of social groups different from us, distorting our perceptions of those individuals (out-group homogeneity). This cognitive bias reinforces the belief that outgroup members are more alike than they actually are, making it easier to apply stereotypes to members belonging to certain social categories. Over time, these tendencies can lead to more deeply rooted prejudices and contribute to systemic racism as individuals may make generalized judgments or discriminatory decisions (such as in judicial, medical, and political settings) based on perceived group membership rather than individual traits.

These cognitive processes set the stage for more rigid forms of thinking about social groups, namely essentialism. Essentialism refers to the belief that certain social categories are defined by an underlying essence which makes members of those categories fundamentally similar to one another. This essence is often assumed to be innate, immutable, and biologically rooted, leading people to view social group boundaries as natural and fixed (Rhodes & Mandalaywala 2017). This belief system can reinforce and intensify the stereotypes formed during categorization by suggesting that group differences are natural, fixed, and biologically

determined. While previous research has explored essentialist beliefs across various social categories, the role of perceiver characteristics, such as gender and race, in shaping these beliefs remains relatively unexplored. This study aims to expand on existing research by examining how gender and race influence the endorsement of essentialist beliefs about social categories.

## **2. Previous Work**

Haslam et al. (2000) provided important insights into the generality, structure, and evaluative consequences of essentialist beliefs across a broad array of social categories. Their work investigated whether essentialist beliefs formed a unified system, identified distinct patterns within these beliefs, and examined how those patterns related to social status and stigma. Results indicated that essentialism is not a unitary concept but can be clustered into two distinct dimensions: natural kind (the perception that a category is biological, fixed, and historically stable) and reification/entitativity (the perception that a group is homogenous, informative, and exclusive). Participants endorsed moderate to high levels of essentialist beliefs, particularly toward stigmatized groups such as racial minorities and women.

While Haslam's work advanced the understanding of how people essentialize categories, it left open important questions about how a perceiver's own social identity, such as their gender or race, may influence the strength, structure, and evaluative implications of essentialist beliefs. For instance, do individuals from dominant versus marginalized groups endorse essentialist beliefs differently? Are certain components of essentialism more salient depending on the perceiver's identity? The present study seeks to extend Haslam's framework by replicating his study within a more diverse, liberal environment, introducing participant race and gender as key moderating variables. Given that essentialist beliefs appear sensitive to both category domain

and evaluative status, I hypothesize that participants' social identities will moderate their endorsement of essentialist beliefs. Moreover, the broader cultural norms emphasizing diversity within the study setting may weaken essentialist thinking overall, particularly in relation to the reification of stigmatized categories. By addressing these gaps, findings will demonstrate how gender and race shape the extent and nature of essentialist beliefs as well as how these beliefs relate to in-group preference and out-group bias.

**The questions to be answered in this study will be as follows:**

1. **Sociocultural Impact:** How does the sociocultural environment (liberal vs. conservative college setting) influence participants' endorsement of essentialist beliefs? Does the two-factor structure of essentialist beliefs hold up in a liberal setting?
2. **Extent:** To what extent do individuals of different genders and racial backgrounds endorse essentialist beliefs about social categories? To what extent do undergraduate students at a diverse university endorse essentialist beliefs about social categories in comparison to those at a conservative university?
3. **Structure:** Does the structure of essentialist beliefs differ depending on the participant's gender or race? Are certain components of essentialist thinking more salient in how different racial groups conceptualize social categories?
4. **Evaluative:** Is participant identity (gender/race) related to how essentialist beliefs are linked to positive or negative evaluations of social categories? Are in-group essentialist beliefs more evaluatively positive and out-group essentialist beliefs more negative? Does this pattern vary by participant race/gender?
5. **Intersectionality:** How do intersecting identities (e.g., being a woman of color) influence the endorsement and structure of essentialist beliefs?

### **3. Experiment**

#### **3.1 Participants**

The original study treated participants as a homogeneous sample without examining how individual differences such as race and gender might influence essentialist thinking. The participant pool included undergraduate college students from a conservative Midwestern school, impacting the findings of the study as essentialist beliefs tend to be stronger in conservative ideologies (Hoyt et. al 2018). This study aims to not only recreate the original experiment in a liberal school, Rutgers University New Brunswick, but to take participants' race and gender into account when analyzing the results.

Participants will include 120 undergraduate students from a diverse university (e.g., Rutgers University) recruited by fliers for a paid study of 'social categories', ensuring balanced representation across gender and racial groups: 20 white males, 20 white females, 20 black males, 20 black females, 20 asian males, and 20 asian females. Nonbinary and multiracial participants will be recorded and explored in exploratory analyses but may be excluded from primary analyses due to statistical power considerations.

#### **3.2 Materials & Methods**

**Demographic Survey:** Participants will first complete a multiple choice demographic questionnaire at least a week prior to the execution of the study, including their gender identity and race/ethnicity. A sample demographic survey is shown in Appendix 2.

**Essentialism Questionnaire:** Participants will complete a questionnaire adapted from Haslam et al. (2000), consisting of ratings of 8 social categories related to race and gender on 10 items. The categories are drawn from 8 social domains (e.g., race, gender, occupations). Each domain contains two categories, selected to reflect contrasts within that dimension (e.g., "black

people" and "white people" in race). Each participant will rate a sample of 8 social categories on 10 items, 9 of which will correspond to proposed elements of essentialism. Domains and their corresponding categories will be listed as follows: ethnic groups ("Asians", "Hispanics"), genders ("males", "females"), intelligence groups ("people of average intelligence", "smart people"), language groups ("English-speakers", "Spanish-speakers"), occupations ("blue-collar workers", "doctors"), races ("Black people", "White people"), regions ("Easterners", "Midwesterners"), and social classes ("lower-class people", "middle-class people").

Nine items will be written to include the identified elements of essentialism which are commonly invoked in psychological, philosophical, and social scientific writings (Appendix 1). Each item will be rated on a 1 (Strongly Disagree) to 9 (Strongly Agree) scale, and anchored at the extremes. Participants will rate all of their categories on each item before proceeding to the next items. One final item will be asking the participants to rate the categories on a scale of 1 (Low) to 9 (High) on their evaluative status (i.e. 'as you think the general public sees it, how favorably regarded they are in our culture'). A sample questionnaire is shown in Appendix 3.

### **3.3 Procedure**

Participants will complete the demographic survey at least a week before the essentialism questionnaire which will be completed online via a secure survey platform (e.g., Qualtrics). Each participant will rate 8 categories, one from each domain. For each category, they will rate all 10 items (9 essentialist items and 1 status item) before moving to the next category.

Four alternative forms of the questionnaire will be constructed, and 5 participants from each gender race group will be randomly assigned to complete each one. In all forms the 10 items and 8 category domains will be in the same randomized order, and one category from each domain will be listed. However, the particular category to be rated from each domain will vary:

Two categories within each domain will be randomly assigned to an A list or a B list. One form will contain the entire A list, one will contain the entire B list, one will contain the first 4 A categories followed by the last 4 B categories, and one form will contain the first 4 B categories followed by the last 4 A categories. In summary, all participants will rate one member of every category pair, and each category will be rated by 60 participants.

#### **4. Hypotheses**

**Sociocultural Impact:** Given that Haslam et al.'s (2000) participants were drawn from a conservative context, it is expected that a more liberal and diverse environment would reduce the endorsement of essentialist beliefs, particularly those related to Reification/Entitativity.

**Extent:** As traditionally stigmatized social categories tended to be more strongly essentialized, it is expected that individuals' social identities will strongly shape their endorsement of essentialist beliefs. Participants from marginalized groups (e.g., females, racial minorities) will endorse lower levels of essentialist beliefs about social categories compared to participants from dominant groups (e.g., males, white participants).

**Structure:** The two-factor structure of essentialist beliefs (Naturalness and Reification/Entitativity) will replicate across all participant groups. However, the strength of endorsement on specific components (e.g., immutability, homogeneity) will differ by participant race and gender: marginalized participants will show particularly low endorsement on reification-related components (uniformity, informativeness, inherence) compared to dominant-group participants, who will endorse higher levels of both naturalness- and reification-related components.

**Evaluative:** Reification/Entitativity scores will be negatively correlated with evaluative status of social categories across all groups, but this negative association will be stronger for participants evaluating out-group categories. Participants will endorse more positive evaluations of categories they perceive as their in-group, and essentialist beliefs about in-groups will be less strongly linked to stigma compared to beliefs about out-groups. This pattern will vary by race and gender, with marginalized participants showing a stronger differentiation between in-group and out-group essentialism-evaluation links.

**Intersectionality:** Given Haslam's findings that essentialism varies strongly by domain and status, participants with intersecting marginalized identities (e.g., females of color) will show the lowest overall endorsement of essentialist beliefs, particularly in the Reification/Entitativity dimension. Furthermore, participants with intersecting identities will demonstrate greater variability in their endorsement of different essentialist components across domains, reflecting more nuanced and context-sensitive conceptualizations of social categories.

Ultimately, I expect that male participants will endorse higher essentialism scores particularly for entitativity than female participants, white participants will rate social categories (particularly race-related ones) as more natural and immutable than participants of color, and participants will be less likely to essentialize categories that include their own identity (i.e., in-group categories) and more likely to essentialize out-groups.

## 5. Analysis & Expected Results

All analyses will be conducted on mean ratings of the 16 social categories across the 10-item essentialism scale, with each mean score based on the responses of 20 participants, stratified by participant race and gender. These mean ratings represent estimates of the level of

essentialist belief endorsement. White male participants are expected to have the highest mean ratings, male participants are expected to have higher mean ratings than females, and white participants are expected to have higher mean ratings than those of marginalized racial categories. To assess whether essentialist beliefs represent a coherent and unitary cognitive syndrome, the nine essentialism items will be intercorrelated separately for participants grouped by race (white vs. participants of color) and gender (males vs. females). Principal components analyses (PCAs) will then be conducted within each group, with an expected two-factor structure of Naturalness (discreteness, naturalness, immutability, stability, necessity) and Reification/Entitativity (uniformity, informativeness, inherence, exclusivity). Beyond group differences, it is expected that Reification/Entitativity scores will be negatively correlated with the perceived status of social categories ( $r \approx -.35$ ,  $p < .01$ ), with this association being stronger when participants evaluate out-group categories rather than in-group categories, particularly among dominant-group members. Mean comparisons will then be conducted using two-way ANOVAs (participant race  $\times$  gender) with factor scores (Naturalness and Reification/Entitativity) as dependent variables. White and male participants are expected to endorse significantly higher scores on both the Naturalness and Reification/Entitativity dimensions compared to participants of color and females ( $p < .01$ ). Pearson correlations and moderation analyses will test whether the relationship between essentialist beliefs and evaluative status differs by participant race and gender, particularly distinguishing between evaluations of in-group versus out-group categories. Traditionally stigmatized social groups are expected to be essentialized along either the Naturalness or Reification/Entitativity dimensions, but rarely on both simultaneously. However, when categories are highly naturalized and highly reified, the interaction between these dimensions is anticipated to predict greater perceived devaluation, with such categories

exhibiting the lowest status ratings. Analyses on intersectional identities using multilevel modeling are expected to reveal that participants with multiple marginalized identities will endorse the lowest levels of essentialist beliefs overall, particularly on the Reification/Entitativity dimension, and will display the greatest domain-specific variability in their essentialism ratings.

## **6. Conclusion**

This study will extend the understanding of essentialism by incorporating the perceiver's racial and gender identities as variables. The findings are expected to demonstrate that essentialist beliefs are not purely cognitive or universal, but socially situated and influenced by identity and experience. These results could inform diversity training and anti-bias interventions by highlighting that targeting essentialist beliefs may require different strategies depending on the audience's social identities. For example, efforts to reduce group-based entitativity are crucial in political and judicial settings as it has been proven that jurors are more likely to sentence a black defendant to death than a white defendant (Eberhardt et. al 2006). By integrating social identity theory with the framework of essentialist beliefs, this study aims to enrich our understanding of how social categories are cognitively represented and emotionally evaluated.

## References

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## Appendix 1:

*Discreteness*: ‘Some categories have sharper boundaries than others. For some, membership is clear-cut, definite, and of an “either/or” variety; people either belong to the category or they do not. For others, membership is more “fuzzy” ; people belong to the category in varying degrees’ (‘clear-cut’, ‘either/or’ vs. ‘fuzzy’, ‘indefinite’).

*Uniformity*: ‘Some categories contain members who are very similar to one another; they have many things in common. Members of these categories are relatively uniform. Other categories

contain members who differ greatly from one another, and don't share many characteristics' ('diverse', 'differing' vs. 'uniform', 'similar').

*Informativeness:* 'Some categories allow people to make many judgments about their members; knowing that someone belongs to the category tells us a lot about that person. Other categories only allow a few judgments about their members; knowledge of membership is not very informative' ('few judgments', 'uninformative' vs. 'many judgments', 'informative').

*Naturalness:* 'Some categories are more natural than others, whereas others are more artificial' ('artificial' vs. 'natural').

*Immutability:* 'Membership in some categories is easy to change; it is easy for members to become nonmembers. Membership in other categories is relatively immutable; it is difficult for category members to become non-members' ('easily changed', 'mutable' vs. 'not easily changed', 'immutable').

*Stability:* 'Some categories are more stable over time than others; they have always existed and their characteristics have not changed much throughout history. Other categories are less stable; their characteristics have changed substantially over time, and they may not have always existed' ('unstable over time', 'change much' vs. 'stable over time', 'change little').

*Inherence:* 'Some categories have an underlying reality; although their members have similarities and differences on the surface, underneath they are basically the same. Other categories also have similarities and differences on the surface, but do not correspond to an underlying reality' ('underlying reality or sameness' vs. 'no underlying reality or sameness').

*Necessity:* 'Some categories have necessary features or characteristics; without these characteristics someone cannot be a category member. Other categories have many similarities,

but no features or characteristics are necessary for membership’ (‘necessary features or characteristics’ vs. ‘no necessary features or characteristics’).

*Exclusivity:* ‘Some categories do not allow their members to belong to other categories; belonging to such a category excludes a person from these other categories. On the other hand, some categories do not limit which other categories their members can belong to; they do not exclude a person from these categories’ (‘exclude other categories’ vs. ‘not exclude other categories’).

## Appendix 2: [Demographic Sample Survey](#)

### Sample Demographic Survey

\* Indicates required question

Which gender were you assigned at birth? \*

Male

Female

Which gender do you currently identify with? \*

Male

Female

Non-Binary

Other/Prefer Not to Say

Which race/ethnicity are you? \*

White or Caucasian

Black or African American

Asian

Hispanic or Latino/a/x

Native American

Pacific Islander

Biracial or Multiracial

Other/Prefer Not to Say

Submit Clear form

