

# Attenuating Racial Stereotypes Through Babyfacedness: A Replication and Extension of the Teddy-Bear Effect

Senior Honors Thesis by Andy Jin (BSBA, 2024) under the direction of Dr. Shimul Melwani

## Abstract

Facial features seemingly should not affect leadership assessments, yet research has consistently shown instant and robust judgments on physical appearance. Babyfacedness, a central attribute of facial inference, was originally found to be harmful for leaders. Through a survey of full-time employees in the United States (n = 269), non-White CEOs' (Black, East Asian, and South Asian) increased babyfacedness was linked to higher leadership assessments mediated by warmth. This increased babyfacedness acted as a disarming mechanism by attenuating stereotypical perceptions of threat of non-White leaders. These findings stood despite non-White people being rated categorically less warm than White people in a separate survey of 50 participants. Collectively, these findings suggest non-White CEOs benefit from cues of warmth to compensate for racial stereotypes. Theoretical and practical implications, as well as future directions are offered in the discussion section.

Key words: face, trait inference, implicit leadership, babyfacedness, Teddy-Bear Effect, Stereotype Content Model, Asian

## Introduction

Despite common advice to not judge a book by its cover, humans perceive faces and infer traits as fast as 38 milliseconds (Bar et al., 2006). Two traits, dominance and trustworthiness, constitute 80% of face evaluations (Oosterhof & Todorov, 2008). Ancestral humans utilized physical indicators like jawlines and facial maturity to establish status hierarchies at a glance (Kalma, 1991; Van Vugt, Hogan, & Kaiser, 2008). More recently, physical appearance has been shown to be highly correlated with higher pay (Fruhen et al., 2015; Judge et al., 2009) and leadership emergence (Alrajih & Ward, 2014; Rule & Ambady, 2011; Van Vugt & Grabo, 2015).

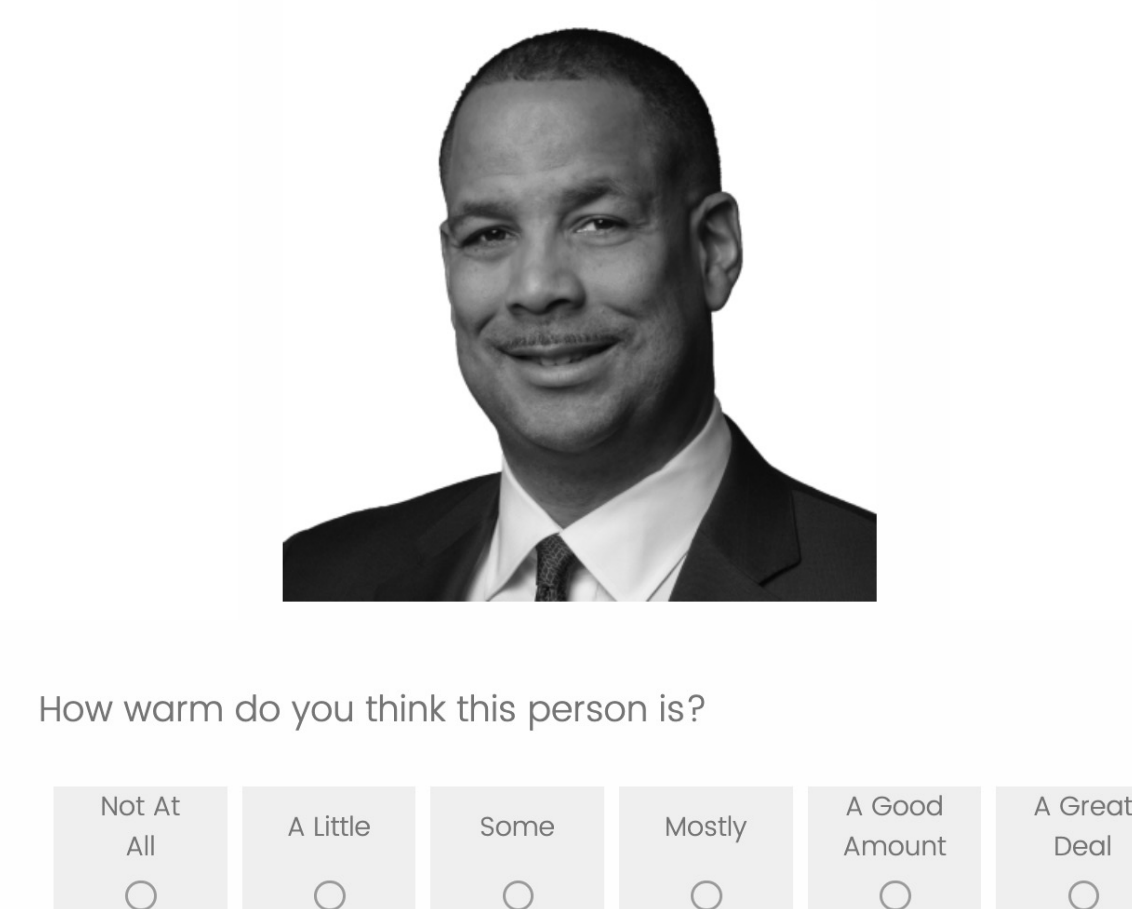
Dominance and trustworthiness correlate with the dimensions of the stereotype content model: competence and warmth, respectively (Fiske et al., 2002). While babyfacedness, "the attribute of having an adult face with configural features resembling those of an infant, that is, large eyes, full cheeks, a round shape, a protruding forehead, and a small nose and chin" (APA, 2018), has previously been correlated with lower competence and company profits, (Rule & Ambady, 2008), lower facial maturity was both found at higher levels and positively correlated with leadership metrics in Black CEOs (Livingston & Pearce, 2009).

I aimed to assess trait inference and the relationship between babyfacedness and leadership across four races: White, Black, East Asian, and South Asian. Past research treats East and South Asians as a homogenous group despite phenotypical and cultural differences.

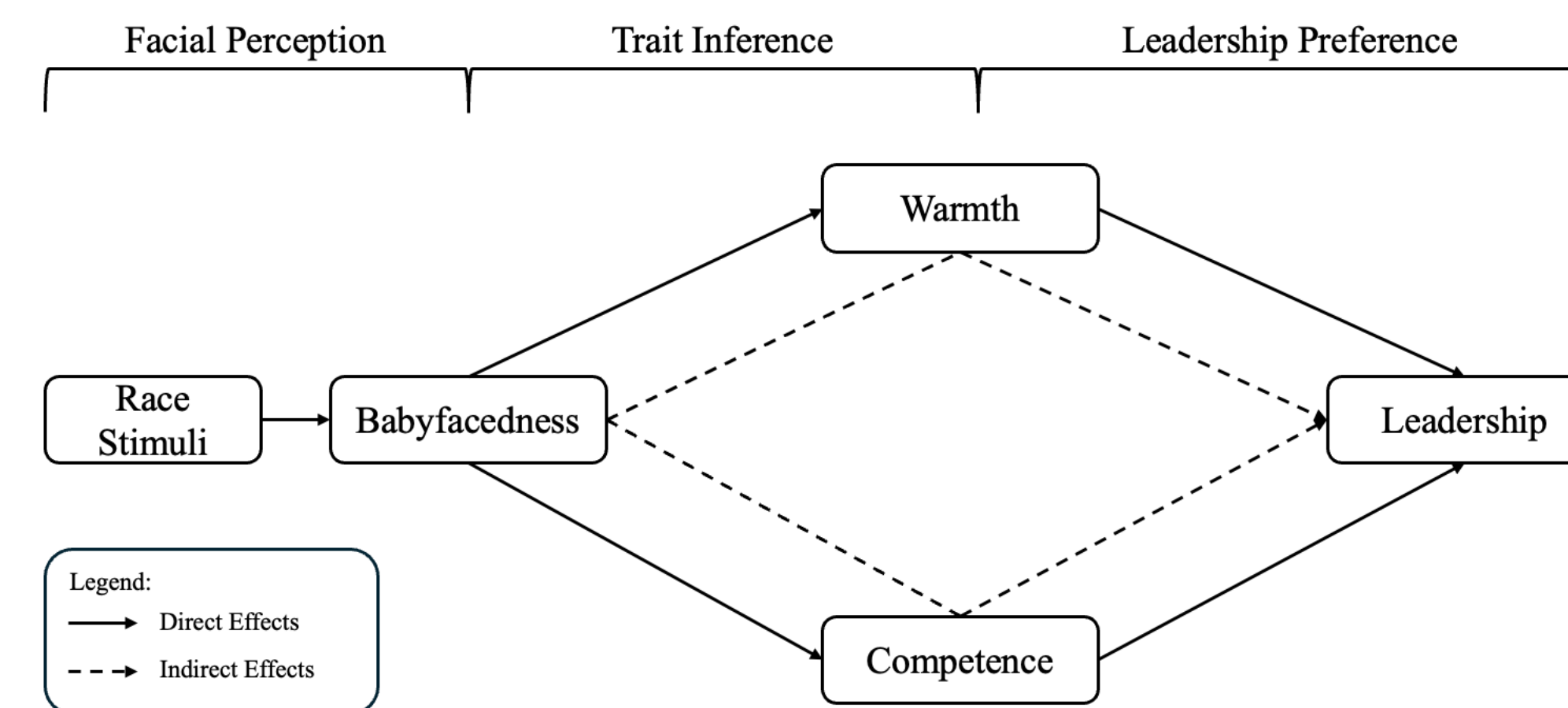
## Methodology

**Survey 1** (n = 269) evaluated 20 CEOs on six dimensions (leadership effectiveness, babyfacedness, competence, warmth, assertiveness, femininity). Five CEOs of each racial group (White, Black, East Asian, South Asian) were randomly selected after codifying all Fortune 500 CEOs. Faces were flashed for 3 seconds; every respondent rated every CEO on all six traits. **Survey 2** (n = 50) established stereotypes of the same traits by asking "Generally, Americans think [Racial Group] people are [Trait]." These generalizations were established for each racial group.

### Sample Question



### Proposed Model



## Conclusion

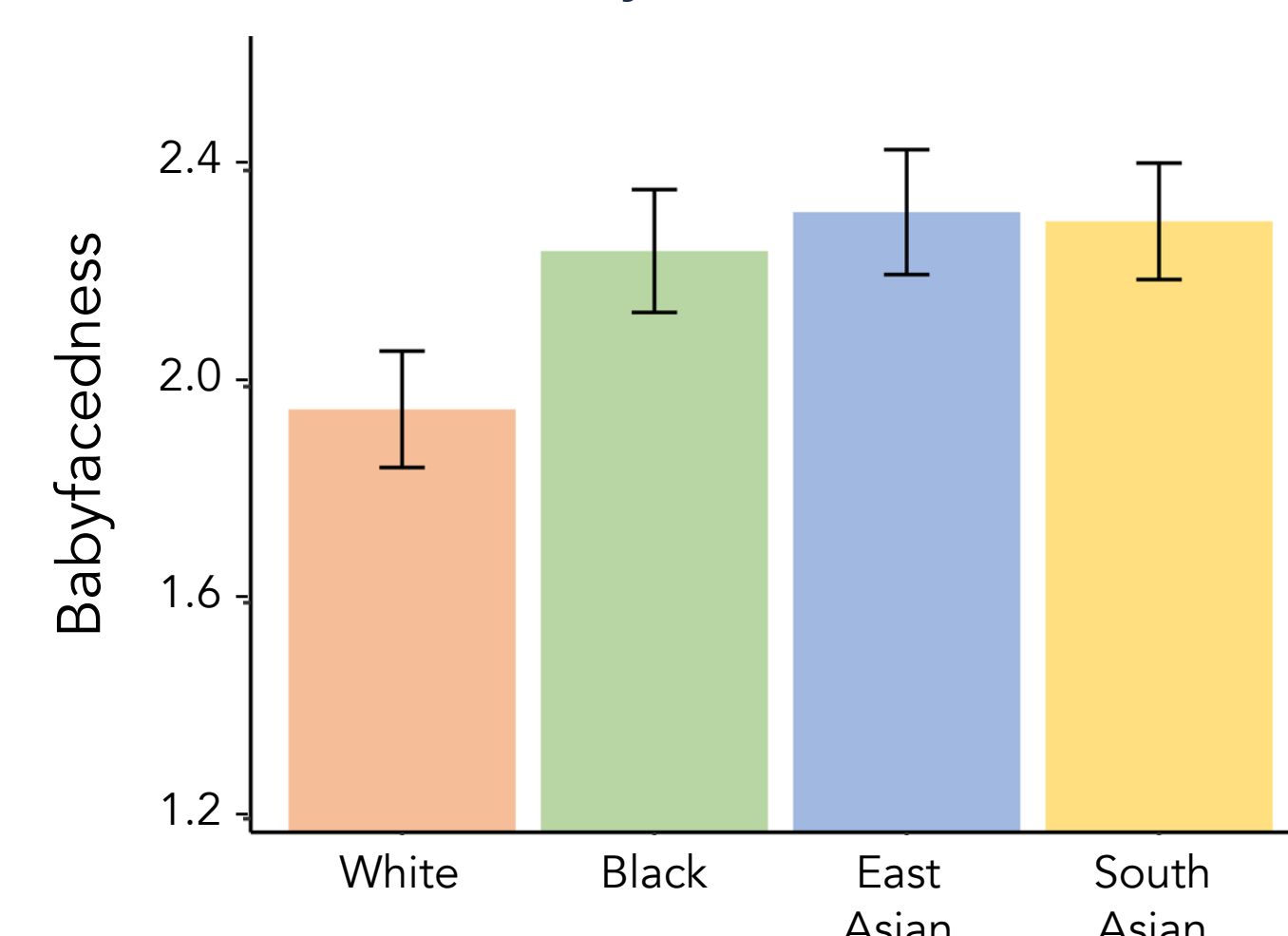
The increased babyfacedness in non-White (Black, East Asian, and South Asian) CEOs acts as a warmth cue, increasing assessments of leadership. This disarming effect mitigates different threats (violent/aggressive, overly competent) for each racial group. Interestingly, South Asians were stereotyped as similar to Black people and did not fit the "cold but competent" stereotype. Regardless, non-White CEOs racial groups' low warmth stereotypes benefited more from babyfacedness facial cues than White CEOs.

Contrary to previous research, babyfacedness was found to be ubiquitously positively linked to leadership through warmth. The mediating effect of competence was found to be insignificant for White, Black, and East Asian people and small for South Asians. This finding may reflect shifting preferences in leaders, from an emphasis on dominance/competence to an emphasis of warmth, an effect previously hypothesized as the primacy of warmth (Asch, 1946).

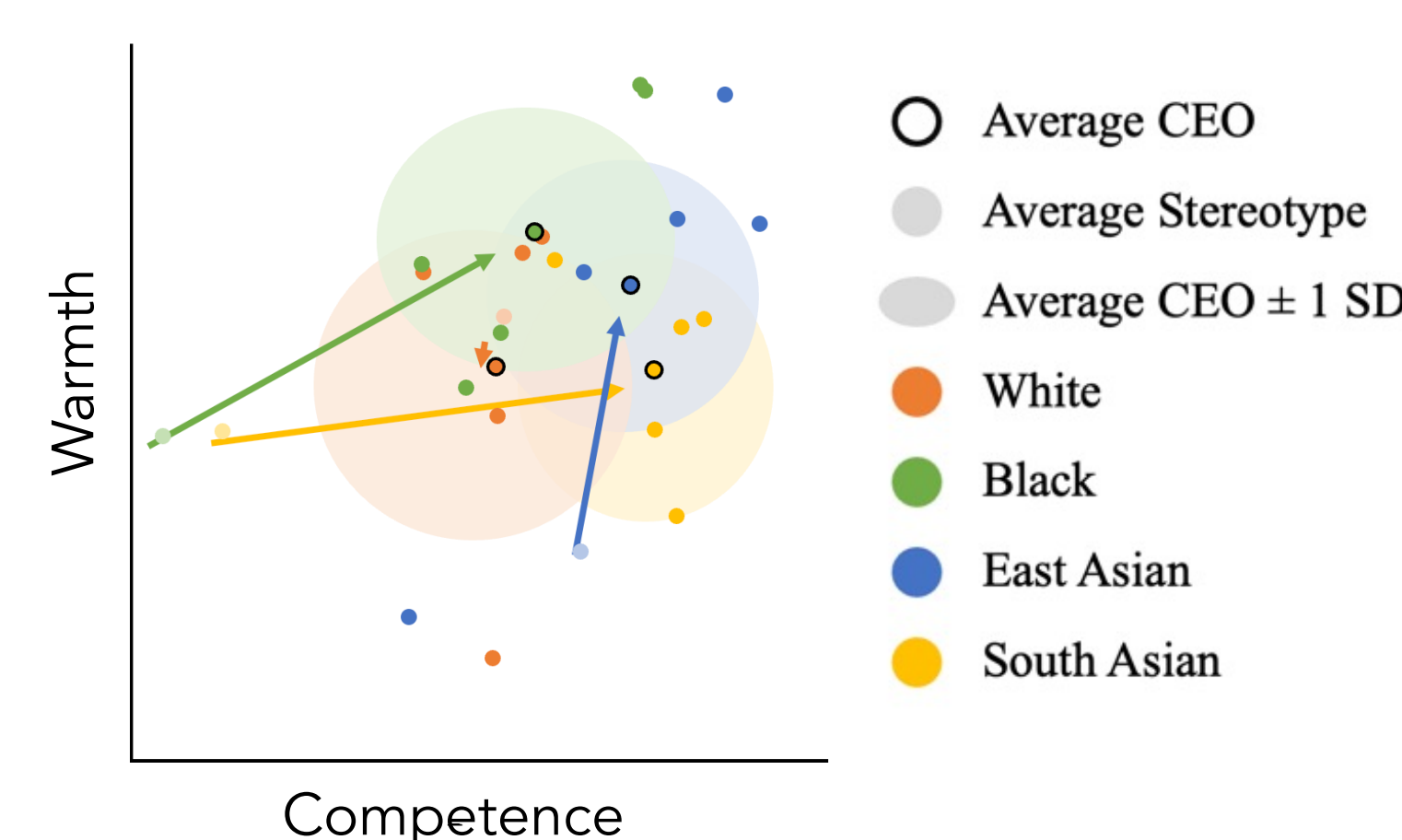
While facial cues are not deterministic of leadership success, this research provides insight into possible mechanisms that may impact leadership perceptions across races.

## Results and Findings

**Higher Babyfacedness in Non-White CEOs**  
Black, East Asian, and South Asian CEOs were rated as more babyfaced than White CEOs



**Facial Cues Matter for Non-White CEOs**  
Black, East Asian, and South Asian CEO ratings all differed from racial generalizations while White CEOs were rated the same



**Indirect Correlation Between Babyfacedness & Leadership Through Warmth**  
Babyfacedness was positively linked to leadership as mediated by warmth ratings

CEO Race	Indirect Effects	
	Coefficient	p-value
Overall	0.04***	0.000
White	0.038***	0.000
Black	0.032***	0.000
East	0.055***	0.000
South	0.028***	0.000

**Warmth Desirability for non-White CEOs**  
Black, East Asian and South Asian CEOs had a stronger link between warmth and leadership assessments

CEO Race	Warmth to Leadership	
	Coefficient	p-value
Overall	0.216***	0.000
White	0.173***	0.000
Black	0.186***	0.000
East	0.250***	0.000
South	0.217***	0.000

## Recommendations

Additional research in six areas can be extended from my research:

1. The **respondents' demographics** may play a role in trait assessments. People may distinguish between in-group, out-group and/or express specific racial biases.
2. The **CEO sample** can be expanded to include more people of color and other genders. Unfortunately, there is currently not enough representation of other groups, so I was unable to run additional analyses.
3. While facial perception stays consistent, **cultural background** influences trait inference and leadership preferences. For example, facial cues were not predictive of Japanese CEOs (Rule et al., 2011).
4. Racial groups may express varied **phenotypical tendencies**. Though unlikely, non-White people may be consistently rated more babyfaced than White people.
5. Further investigate **social and possible self esteem effects** of facial prototypes of leaders (Judge & Cable, 2004).
6. Further research on **changing leadership preferences** may corroborate the inconsistency of previous research regarding the negative effects of babyfacedness.

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