Title

Supplemental Online Material to accompany Holbrook et al.'s "Looming large in others' eyes: Racial stereotypes illuminate dual adaptations for representing threat versus prestige as physical size"

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to accompany

Looming large in others' eyes: Racial stereotypes illuminate dual adaptations for representing threat versus prestige as physical size

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Vignette Texts

We selected stereotypical White and Black names by pre-testing 16 names taken from lists of names frequently associated with Black and White men (Levitt & Dubner, 2006). We then selected three names for each category that were closely matched in perceived masculinity, and which over 90% of participants identified as matching the intended group (White names: Wyatt, Connor, and Garrett; Black names: Jamal, DeShawn, and Darnell). In Study 3, we used the same approach to pre-test and select stereotypical Asian and Hispanic names from an initial pool of 16 names generated by the first author on the basis of Internet searches (Asian names: Chen, Hikaru, and Zhiyuan; Hispanic names: Juan, Santiago, and Jorge).

Studies 1 and 3:

> [NAME] woke up Saturday morning and began his day by brushing his teeth and taking a shower. After eating breakfast, [NAME] watched TV for a while and talked on the phone. Then [NAME] went to a nearby store and bought some groceries. Once he had gotten home, [NAME] received a text message from a friend inviting him to go out later. That night, [NAME] went out to meet his friends at a bar. As he entered the crowded bar, he brushed against the shoulder of a man walking the other direction. The man turned, glared at [NAME], and angrily said "Watch where you're going, asshole!"

Study 2: Study 2 utilized the vignette above in the Neutral condition. The following opening sentences were added in the Status versus Threat conditions:

> *Status Condition*: "[NAME] is a college graduate. After college, [NAME] went on to become a successful local business owner."
>
> *Threat Condition*: "[NAME] was convicted of aggravated assault. After prison, [NAME] took a part-time job at a local business."

Pre-study

Methods

Participants and overview of procedure. 600 adult participants were recruited via Michigan State University's study pool to take part in a study advertised as an online survey of "Personality and Preferences" in exchange for course credit. Data were analyzed solely for participants who completed all survey items relevant to this study, did not take the survey more than once, self-identified as a U.S. citizen, and did not provide obviously questionable responses (e.g., claiming to be over 100 years old). The final sample consisted of 566 adults (62.2% female; 77.9% White) ranging in age from 18 to 59 (M = 21.07, SD = 5.04).

In this within-subjects design, participants read short biographical vignettes about two men, one of whom had a stereotypically Black-sounding name, and one of whom had a stereotypically White-sounding name. The two vignette conditions were presented in random order, and varied only in the name of the protagonist described:

> [NAME] is a college student in his early twenties, and usually earns average grades. In addition to his studies, he works part-time in a retail store near his apartment. During most weekends, [NAME] enjoys watching movies and hanging out with friends.

Participants then reported their intuitions about the target individuals' physical traits in fixed order: size, height, and muscularity. Size was rated using a 6-point silhouette array; height was rated in feet and inches according to an 11-point scale (1 = *Below 4'10''*, 2 = *4'10''-5'0''*, 3 = *5'0''-5'2''*, 4 = *5'2''-5'4''*, 5 = *5'4''-5'6''*, 6 = *5'6''-5'8''*, 7 = *5'8''-5'10''*, 8 = *5'10''-6'0''*, 9 = *6'0''-6'2''*,

10 = *6′2″-6′4″*, 11 = *Over 6′4″*); muscularity was rated using a 6-point array of computer-generated images (see Figure 1). Estimated physical formidability was composited using standardized values for the measures of height, size, and muscularity ($\alpha = .69$). After completing additional studies unrelated to the pre-study (e.g., related to moral judgment), participants completed demographic items and were debriefed.

Results

Envisioned physical formidability. Preliminary tests for order effects of condition revealed that the targets with stereotypically Black names were rated as taller, larger, and more muscular when the target with the typically White name was rated first, *p*s < .02. There was no effect of order on ratings of the targets assigned typically White names, *p*s > .2. Order was therefore statistically controlled for. As predicted, targets with stereotypically Black names were estimated to be more physically formidable than targets with stereotypically White names (see Table S1).

SOM Table 1

Mean Estimated Height, Size, and Muscularity (Pre-study)

	Black	White			
	M (SD)	*M (SD)*	*F*	*p*	η^2_p
Height	7.56 (1.17)	7.22 (1.02)	44.92	<.001	.07
Size	4.31 (.80)	3.99 (.79)	16.02	<.001	.03
Muscularity	3.07 (1.19)	2.66 (1.04)	89.04	<.001	.14

Note. $N = 566$.

SOM Table 2

Mean Estimated Height, Size, Muscularity, Likelihood of Fighting if Challenged, and Trait Physical Aggressiveness (Study 1)

	Black	White				
	M (SD)	*M (SD)*	*F*	*p*	η^2_p	95% CI
Height	70.51 (1.92)	69.75 (1.77)	7.38	<.01	.03	-1.06, -.17
Size	4.05 (.90)	3.92 (.95)	.33	.57	.00	-.29, .16
Muscularity	2.56 (.92)	2.16 (.82)	9.97	<.01	.04	-.55, -.13
Likelihood of Fighting	4.04 (1.72)	3.46 (1.70)	5.07	<.03	.02	-.90, -.06
Trait Aggressiveness	3.55 (1.09)	3.30 (1.10)	1.89	.17	.01	-.46, .08

Note. $N = 249$. Estimated heights are in inches. Analyses control for covarying differences in perceived masculinity.

SOM Table 3

Mean Estimated Status Rank, Financial Success, Social Influence, and Community Respect (Study 1)

	Black	White				
	M (SD)	*M (SD)*	*F*	*p*	η^2_p	95% CI
Status Ladder	5.26 (1.26)	5.70 (1.52)	7.12	<.01	.03	.12, .82
Financial Success	4.93 (.99)	5.27 (1.20)	7.56	<.01	.03	.11, .65
Social Influence	4.71 (1.03)	4.88 (1.36)	2.04	.16	.01	-.08, .51
Community Respect	5.33 (.99)	5.51 (1.22)	2.72	.10	.01	-.05, .51

Note. $N = 249$. Analyses control for covarying differences in perceived masculinity.

SOM Table 4

Mean Estimated Physical Formidability, Aggressiveness, and Status by Subcondition (Study 2)

	White Neutral *M* (*SD*)	White Status *M* (*SD*)	White Threat *M* (*SD*)	Black Neutral *M* (*SD*)	Black Status *M* (*SD*)	Black Threat *M* (*SD*)
Formidability	-.47 [a] (.77)	-.30 [a, c] (.59)	.22 [b, d] (.76)	-.08 [b, c, d] (.74)	.12 [b, d] (.65)	.38 [d, e] (.71)
Aggression	-.39 [a] (.68)	-.66 [b] (.57)	.81 [c] (.66)	-.10 [d] (.69)	-.48 [a, b] (.78)	.82 [c] (.74)
Status	.25 [a] (.28)	.82 [b] (.55)	-.90 [c] (.61)	.00 [d] (.68)	.67 [b] (.67)	-.89 [c] (.58)

Note. N = 419. Means with different superscripts are significantly different with alpha at .05.

Analyses control for covarying differences in perceived masculinity.

SOM Table 5

Mean Estimated Height, Size, Muscularity, Likelihood of Fighting if Challenged, and Trait Physical Aggressiveness (Study 2)

	White Neutral *M* (*SD*)	White Status *M* (*SD*)	White Threat *M* (*SD*)	Black Neutral *M* (*SD*)	Black Status *M* (*SD*)	Black Threat *M* (*SD*)
Height	69.67 [a] (2.03)	70.11 [a, b] (1.81)	70.75 [b, c] (2.20)	70.53 [b, c] (1.94)	70.90 [c] (2.06)	71.08 [c] (2.14)
Size	3.73 [a] (.95)	3.89 [a] (.71)	4.25 [b] (.76)	4.03 [a, b] (.90)	4.23 [b, c] (.78)	4.36 [c, d] (.91)
Muscularity	2.11 [a] (.88)	2.20 [a, b] (.74)	3.00 [c] (1.02)	2.47 [b] (.94)	2.66 [b, d] (.73)	3.17 [c, e] (.90)
Likely to Fight	3.36 [a] (1.50)	2.84 [a, b] (1.42)	5.27 [c] (1.73)	3.87 [a] (1.64)	3.16 [a, b] (1.76)	5.30 [c] (2.06)
Aggression	3.27 [a] (1.08)	2.89 [b] (.85)	5.29 [c] (.95)	3.75 [d] (1.02)	3.17 [a, b] (1.15)	5.32 [c] (.93)

Note. $N = 419$. Estimated heights are in inches. Means with different superscripts are significantly different with alpha at .05. Analyses control for covarying differences in perceived masculinity.

Mean Estimated Status Rank, Financial Success, Social Influence, and Community Respect (Study 2)

	White Neutral *M* (*SD*)	White Status *M* (*SD*)	White Threat *M* (*SD*)	Black Neutral *M* (*SD*)	Black Status *M* (*SD*)	Black Threat *M* (*SD*)
Status Ladder	5.80 [a] (1.28)	6.49 [b] (1.37)	3.41 [c] (1.28)	4.90 [d] (1.48)	6.11 [a, b] (1.42)	3.12 [c] (1.28)
Financial	5.11 [a] (.85)	6.28 [b] (1.05)	3.33 [c] (1.07)	4.81 [a] (1.21)	6.11 [b] (1.29)	3.17 [c] (1.06)
Influential	4.87 [a] (.90)	6.04 [b] (1.18)	3.02 [c] (1.41)	4.63 [a] (1.45)	5.85 [b] (1.34)	3.19 [c] (1.46)
Respected	5.44 [a] (1.14)	6.34 [b] (1.16)	3.44 [c] (1.23)	5.10 [a] (1.17)	6.06 [b] (1.31)	3.76 [c] (1.22)

Note. $N = 419$. Means with different superscripts are significantly different with alpha at .05. Analyses control for covarying differences in perceived masculinity.

Mean Estimated Height, Size, Muscularity, Likelihood of Fighting if Challenged, and Trait Physical Aggressiveness (Study 3)

	Hispanic *M (SD)*	Asian *M (SD)*	*F*	*p*	η^2_p	95% CI
Height	69.07 (1.73)	67.59 (2.28)	25.08	<.001	.08	-1.72, -.75
Size	3.67 (.86)	3.09 (.91)	20.26	<.001	.07	-.70, -.27
Muscularity	2.16 (.78)	1.76 (.73)	10.79	.001	.04	-.48, -.12
Likelihood of Fighting	3.59 (1.63)	3.03 (1.31)	9.85	<.01	.03	-.93, -.21
Trait Aggressiveness	3.43 (.92)	2.97 (.88)	14.47	<.001	.05	-.64, -.20

Note. $N = 279$. Estimated heights are in inches. Analyses control for covarying differences in perceived masculinity.

SOM Table 8

Mean Estimated Status Rank, Financial Success, Social Influence, and Community Respect (Study 3)

	Hispanic	Asian				
	M (SD)	*M (SD)*	*F*	*p*	η^2_p	95% CI
Status Ladder	5.14 (1.18)	5.75 (1.16)	23.13	<.001	.08	.41, .98
Financial Success	4.86 (1.11)	5.40 (1.02)	21.78	<.001	.08	.36, .87
Social Influence	4.58 (1.01)	4.93 (1.01)	11.96	.001	.04	.19, .68
Community Respect	5.11 (.88)	5.45 (1.01)	13.58	<.001	.05	.20, .66

Note. $N = 279$. Analyses control for covarying differences in perceived masculinity.

SOM Table 9

Mean Estimated Name Masculinity (Studies 1-3)

	Condition 1	Condition 2				
	M (SD)	*M (SD)*	*F*	*p*	η^2_p	95% CI
Study 1 (1 = White; 2 = Black)	6.56 (1.38)	6.92 (1.37)	4.18	<.05	.02	-.70, -.01
Study 2 (1 = White; 2 = Black)	6.54 (1.49)	6.95 (1.48)	7.68	<.01	.02	-.69, -.12
Study 3 (1 = Asian; 2 = Hispanic)	5.55 (1.45)	6.34 (1.50)	19.97	<.01	.07	-1.14, -.44

References

Levitt, S.D., & Dubner, S.J. (2006). *Freakonomics: A Rogue Economist Explores the Hidden Side of Everything (Revised and Expanded Edition)*. New York: Harper Collins.