Journal of Experimental Social Psychology 46 (2010) 1029–1034

Contents lists available at ScienceDirect

Journal of Experimental Social Psychology

journal homepage: www.elsevier.com/locate/jesp

Reports

# Detecting racial identification: The role of phenotypic prototypicality ☆

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ARTICLE INFO

*Article history:*
Received 29 December 2009
Revised 4 May 2010
Available online 25 June 2010

*Keywords:*
Group identification
Racial identification
Appearance
Impression formation
Phenotypic prototypicality

ABSTRACT

Little is known about what cues are used to infer the racial identification of others and whether or not identification inferences are accurate. Three studies provide evidence that phenotypic prototypicality (PP), the degree to which an individual looks like a prototypical member of his or her racial group, shapes inferences about racial identification. Participants assumed that high PP Blacks were more racially identified than low PP Blacks. In addition to serving as an identification cue for observers, PP was related to self-perceptions, as Blacks and Latinos who were higher in PP were in fact more identified with their racial group than minorities who were lower in PP. Furthermore, unacquainted judges accurately detected Black and Latino targets' racial identification based on PP. The results are discussed in terms of their implications for intergroup relationships.



## Introduction

Imagine being asked to form an impression of a stranger based on nothing more than that person's physical image. Chances are, you would feel confident about inferring some of the person's attributes. For example, a meticulously dressed individual might be perceived as being attentive to detail. On the other hand, it may be difficult to imagine being able to "see" more complex aspects of an individual's self-concept, such as his or her psychological connection to social groups. In this investigation, we examine whether others can perceive ethnic minorities' racial identification (the importance of an individual's racial or ethnic group to his or her self-image [see Luhtanen & Crocker, 1992; McCoy & Major, 2003; Turner, Hogg, Oakes, Reicher & Wetherell, 1987]). We also examine how racial identification inferences are made.

Understanding how people make inferences about minorities' level of racial identification is important because these inferences affect how minorities are evaluated and treated (Dovidio, Gaertner, Shnabel, Saguy & Johnson, 2009; Kaiser & Pratt-Hyatt, 2009, Sanchez & Bonam, 2009). Whites express more negative attitudes and behavioral intentions towards racial minorities that they perceive as strongly racially identified than they do towards those perceived as weakly identified (Kaiser & Pratt-Hyatt, 2009). Likewise, Whites express less prosocial behavior towards Blacks who emphasize their minority group membership (Dovidio et al., 2009).

Although inferences about racial identification affect Whites' attitudes toward racial minorities, no empirical work to date examines *how* Whites determine another individuals' racial identification. In previous research (e.g., Dovidio et al., 2009; Kaiser & Pratt-Hyatt, 2009), participants were explicitly told how targets identified. It is not often that individuals overtly state their racial identification level. This leaves unanswered the question of whether identification can be accurately inferred and what factors shape inferences about identification. Understanding how identity inferences are made will provide insight into the experiences of racial minorities who vary in their level of identification.

### *Phenotypic prototypicality drives inferences about racial identification*

How might perceivers determine someone's racial identification level? Physical appearance is a likely candidate for use in making inferences about identification. Individuals readily use physical appearance, especially facial appearance, to judge others (Eagly, Ashmore, Makhijani & Longo, 1991; Langlois, Kalakanis, Rubenstein, Larson, Hallam & Smoot, 2000). For example, appearance-based first impressions are related to perceptions of social and intellectual competence (Eagly et al., 1991), leadership ability (Rule & Ambady, 2008), and personality (Zebrowitz & Collins, 1997).

*Phenotypic prototypicality* (PP), the degree to which an individual's physical appearance is perceived to be prototypical of his/her group, is an aspect of appearance that may be particularly relevant to understanding inferences about minorities' racial identification. For Blacks, perceptions of PP may be based upon skin tone (Hall, 1998;

☆ This research was supported by a National Science Foundation Graduate Research Fellowship and the Ford Foundation Predoctoral Fellowship to Clara L. Wilkins, grants from the National Science Foundation (BCS-0749159) and the University of Washington Royalty Research Fund to Cheryl R. Kaiser, and a Mary Gates Research Fellowship to Heather Rieck. We thank the research assistants in the Social Identification Laboratory for their assistance with data collection. We also thank members of the Kaiser/Cheryan lab, Sapna Cheryan and Collette Eccleston for their thoughtful feedback on drafts of this manuscript.

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0022-1031/$ – see front matter © 2010 Elsevier Inc. All rights reserved.
doi:10.1016/j.jesp.2010.05.017

Maddox & Gray, 2002; Maddox, 2004) or other features such as the broadness of lips and nose or hair texture (Blair, Judd, Sadler & Jenkins, 2002).

Phenotypic prototypicality has long played a role in US race relations and person perception. In the antebellum south, lighter-skinned Black slaves were given more social privileges and better working conditions than darker-skinned Black slaves (Brown, Ward, Lightbourn & Jackson, 1999). More recently, aspects of PP, such as skin tone, have been demonstrated to affect the degree to which Blacks are stereotyped (Maddox & Gray, 2002) and the automatic evaluations made about both Blacks and Latinos (Livingston & Brewer, 2002; Uhlmann, Dasgupta, Elgueta, Greenwald & Swanson, 2002). PP also affects experiences with prejudice and discrimination, such that high PP Blacks bear the brunt of negative outcomes (Blair, Judd, & Chapleau, 2004; Klonoff & Landrine, 2000).

Perceivers may use PP to infer the degree to which minorities identify with their racial group because PP is a basis for categorization and stereotyping (Maddox, 2004; Maddox & Gray, 2002). For example, high PP Blacks are described using more stereotypic traits and are judged as more similar to prototypical representations of Blacks than low PP Blacks (Maddox & Gray, 2002). Although examinations of similarity have typically focused on the ascription of stereotyped traits to minorities who are higher in PP, PP may also serve as a cue to an individuals' psychological congruity with a category. High PP minorities may be judged as more psychologically identified with their racial group than low PP minorities.

### *Phenotypic prototypicality predicts self-reported racial identification*

As perceivers may use PP to infer racial identification, it is important to understand whether PP is related to minorities' actual racial identification. If minorities higher in PP are more identified with their racial or ethnic group, it indicates that perceivers' assumptions about the relationship between PP and identification are warranted.

Previous research suggests that PP may influence the way in which individuals racially identify. Blacks who were rated by interviewers as "very light" report being less identified with their racial group than individuals rated as "very dark," "dark," or "medium brown" (Brown et al., 1999). However, because the interviewers who assessed skin tone were not blind to participants' identification level, it is possible that knowledge of identification shaped their perceptions of PP (Eberhardt, Dasgupta & Banaszynski, 2003). In addition, identification was assessed by asking participants whether being Black or being American was more important to their sense of self. This mutually exclusive measure of identification is inconsistent with the idea that individuals can simultaneously hold multiple social identities (e.g., Settles, 2006; Brewer & Gardner, 1996). It is thus important to test whether PP is predictive of self-reported racial identification.

### *Naive racial identification inferences are accurate*

In addition to examining the ways in which appearance and identification are connected both perceptually and in reality, it is also important to determine whether or not racial identification can be accurately perceived. Accurate identification inferences would make it possible for Whites to use these inferences in their interactions with minorities, which, in turn, could provide insight into why strongly identified minorities report more experiences with discrimination than weakly identified minorities. For example, if Whites can accurately gauge racial identification, they may preferentially direct their discrimination toward strongly identified minorities (Kaiser & Pratt-Hyatt, 2009).

We expect that Whites will accurately infer the racial identification of racial minorities even in the absence of behavioral cues. We define accuracy as the correspondence between a judgment and a criterion (Funder, 1987; Gray, 2008; Kruglanski, 1989). In this case, the judgment consists of identification inferences made by a racial outgroup member, and the criterion is minorities' self-reported racial identification.

Judgments of identification are likely to be accurate for a number of reasons. First, outgroup members may use observations about the relationship between PP and identification in the real world to make judgments about minorities' identification. For example, they may notice that high PP Blacks are more likely to be members of predominantly Black organizations than low PP Blacks. Second, "thin slice" research reveals that zero-acquaintance judges form accurate impressions of targets on wide range of traits (see Ambady & Rosenthal, 1992 for a review).

### *Overview of studies*

Experiments 1–3 examine the extent to which minorities' PP is related to observers' judgments of racial identification. Experiment 3 additionally examines whether the relationship between PP and identification is based in reality by investigating whether Blacks and Latinos who are higher in PP are in fact more racially identified. This study also examines whether observers can accurately determine minorities' level of racial identification.

## Experiment 1

Experiment 1 tests the hypothesis that high PP Blacks will be perceived as more highly identified with their racial group than low PP Blacks.

### *Method*

#### *Participants*

Participants were 96 University of Washington students who were recruited on campus. Participants were predominately female (65%) and White (82.4%), with the remainder reporting Asian (4.4%), Latino (3.3%), and other/mixed-race[1] backgrounds (9.9%).

#### *Experimental stimuli*

Target photographs came from the Eberhardt face database (see Eberhardt, Davies, Purdie-Vaughns & Johnson, 2006; Goff, Eberhardt, Williams & Jackson, 2008). Faces in this database were previously rated on PP (1–7 scale), attractiveness (1–7 scale), and age. All photographs were standardized to have the same white background, and all pictured targets were wearing the same black T-shirt. Stimuli selected for experiment 1 consisted of three faces rated as high PP ($M = 5.60$, $SD = .38$) and three faces rated as low PP ($M = 3.03$, $SD = .29$). Faces were similar in age to participants (20–30 yrs). The high and low PP faces were rated differently on PP, $t\ (4) = -9.27$, $p = .001$, but were not rated differently on attractiveness, $t\ (4) = -.28$, $p = .31$, or age, $t\ (4) = -.28$, $p = .80$.

#### *Procedure and measures*

Participants were randomly assigned to view a high or low PP face by an experimenter who was blind to condition. After viewing the face, participants ranked a list of attributes according to their perceptions of how important each attribute would be to the pictured target's sense of self. This dependent measure was adapted from the Twenty Statements Test (McPartland, Cumming & Garretson, 1961), which assesses self-concept (i.e., Hartley, 1970; Rhee, Uleman, Lee & Roman, 1995). Participants viewed a list of the attributes: *a son*, *a student*, *funny*, *helpful*, *a roommate*, *African-American*, *a good friend*, *athletic*, *thoughtful*, *procrastinator*, and they were told that the attributes were not listed in any particular order. Participants' task

[1] None of the mixed-race participants reported Black ancestry.

was to use the attributes to fill in the blank as they thought the pictured target might for ten statements beginning with "I am." We were interested in the placement of the African-American attribute.

Participants also completed an open-ended item in which they identified the target's race. Finally, participants completed demographic measures.

*Results and discussion*

Two participants were excluded for failing to complete the questionnaire, and three were excluded because they incorrectly identified the target's race.

To determine whether participants' perceptions of the relative importance of race to the target's sense of self varied as a function of PP, we examined the ranking of the African-American attribute across the two PP conditions. Because the parametric assumption of normality was violated (Shapiro–Wilk = .91, $p < .001$ for the African-American attribute), nonparametric Mann–Whitney $U$ tests[2] were used to examine whether participants who viewed faces differing in PP also ranked the attribute differently. Consistent with the hypotheses, participants who viewed a face high in PP ranked the African-American attribute as more important to the target's sense of self (median = 3) than those who viewed a face low in PP (median = 4), $U = 759.5$, $p = .03$; $r$(effect size) = .22. Thus, individuals make inferences about identification based solely on PP.

In experiment 1, racial identification was operationalized by the importance/ranking of the African-American attribute. While this has the advantage of being fairly implicit (participants were not aware that identification was being assessed), ranking of the African-American attribute was dependent upon the relative ranking of other attributes rather than being an independent measure of identification. Experiment 2 provides a more direct measure of inferred racial identification.

## Experiment 2

Experiment 2 served as a replication of experiment 1 and again examines whether high PP Blacks were perceived as more racially identified than low PP Blacks.

*Method*

*Participants*

Participants were 104 University of Washington students who were recruited on campus. Participants were predominately female (66%) and White (81%), with the remainder reporting Asian (14%), Latino (2%), and other/mixed-race[1] backgrounds (3%).

*Procedure and measures*

The procedure was similar to experiment 1, and utilized the same experimental stimuli. Participants were randomly assigned to view a high or low PP Black target. After viewing the image, participants rated their agreement (on a scale of 0–6) with the four identification centrality subscale items adapted from Luhtanen and Crocker (1992): (1) *Overall, his racial/ethnic group membership has very little to do with how he feels about himself* (reverse), (2) *The racial/ethnic group he belongs to is an important reflection of who he is,* (3) *The racial/ethnic group he belongs to is irrelevant to his sense of what kind of person he is* (reverse), (4) *In general, belonging to his racial/ethnic group is an important part of his self-image* ($\alpha = .81$). Participants also identified the target's race. Finally, participants completed demographic measures.

*Results and discussion*

Four participants were excluded from analyses; one participant was removed for reporting Black heritage and three additional participants were removed for incorrectly identifying the target's race.

We conducted an independent-sample's $t$-test on the average inferred identification score, using PP condition as the between subjects variable. Consistent with predictions, participants who viewed a face high in PP reported believing the target had a higher racial identification ($M = 4.01$, SD = .90) than those who viewed a target low in PP ($M = 3.48$, SD = 1.22), $t(100) = -2.53$, $p = .01$, $r$ (effect size) = .22.[3]

Both relatively indirect (experiment 1) and direct (experiment 2) identification measures revealed that PP affects perceptions of Blacks' racial identification. These finding suggest that when outgroup members encounter a Black individual, they use that individual's appearance to base their judgments about his or her racial identification.

## Experiment 3

Does it make sense for social perceivers to assume that there is a relationship between appearance and racial identification? In other words, is it possible that Blacks who have higher PP actually identify more strongly with their racial group than their low PP counterparts? If so, this indicates that PP may be a crude, but nonetheless ecologically valid cue to racial identification. Experiment 3 examines this question by testing the relationship between PP and self-reported racial identification. Experiment 3 also inestigates whether unacquinted individuals can accurately determine minorities' racial identification.

We were also interested in examining whether these relationships would generalize to another stigmatized racial minority, namely Latinos. Latinos are an important group to examine in part because we are aware of only one empirical paper that explores the consequences of phenotypic variation among Latinos (Uhlmann et al., 2002).

In experiment 3, 15 Black and 36 Latino participants who completed identification measures as part of an earlier study (Kaiser, Drury & Malahy, 2009) were photographed and used as target stimuli. Their photographs were rated on PP and racial identification.

*Methods*

*Target stimuli*

*Target images.* The target stimuli were head-and-shoulder photographic still shots extracted from the videos of 15 Blacks and 36 Latinos who previously participated in an unrelated study (Kaiser et al., 2009).[4] Selected images conveyed neutral expressions (as determined by six raters). As an extra control, faces were evaluated on emotional expression, and were not rated as significantly different from neutral (Blacks: $t(14) = .17$, $p = 87$; Latinos: $t(35) = .43$, $p = .67$). Among Black targets, seven of the participants reported only Black heritage and eight reported mixed-race backgrounds. Among Latino targets, 25 reported only Latino heritage and 11 reported mixed backgrounds. Both groups were predominantly female (Blacks: 66.66%; Latinos: 63.89%), and the mean age was 19.

[2] This test is equivalent to a $t$-test, but it does not require parametric assumptions. A $t$-test also reveals a significant difference by condition $t(89) = 2.09$, $p = .04$.

[3] The second group identification item might have been interpreted as asking participants to reflect on identification based on the targets' physical appearance, so we ran the analyses without that item. High PP faces were perceived as having higher racial identification ($M = 4.01$, SD = 1.0) than low PP faces ($M = 3.40$, SD = 1.31), $t(100) = -2.67$, $p < .01$ even when the perceived racial identification score was computed without item #2 ($\alpha = .76$).

[4] As part of this unrelated study, participants had a discussion about race relations with a White participant.

The photos were cropped to exclude everything but the head and top of the shoulders. Pictures were set to 750×650 pixels, and backgrounds were set to white. The clothes and accessories worn by the targets were not standardized—rather, to examine these targets in a manner with high external validity, the target individuals were depicted as they naturally presented themselves. The images were displayed on desktop computers and viewed individually by the judges. The order of images was randomized within each presentation for each judge.

*Actual (self-reported) racial identification*

Participants whose images were used as target stimuli completed Luhtanen and Crocker's (1992) four-item identification centrality subscale measure of racial identification (0–6 scale) as part of the previous study.[5] Average identification scores were computed for each target individual (Blacks: $\alpha = .83$; Latinos: $\alpha = .86$). Blacks' identification scores ranged from .25 to 6 ($M = 3.83$, SD = 1.44), and Latinos' scores ranged from 0 to 6 ($M = 3.71$, SD = 1.78).

*Judging procedure*

*PP judges.* Five undergraduates were recruited for class credit to code the images of Black and Latino targets on PP. These judges were unacquainted with the targets and blind to hypotheses. Three judges were White and two were Asian American. Four of the judges were female.

The PP judges received the following instructions (adapted from Blair et al., 2002) worded according to the race of the target:

> *All of the photographs in this set are young African-American/Latino American individuals. However, some of the individuals have features that are more typical of African-Americans/Latino Americans than others, in terms of skin color, hair, eyes, nose, cheeks, lips etc.*

After reading the instructions, PP judges rated each face by answering four questions aimed at assessing their impressions of the target's PP: "How stereotypically (Black/Latino) does this person look?," "How similar to other (Blacks/Latinos) does this person look?," "How prototypical of their racial group does this person look?," and "How dark is this person?" on a scale from 1 (not at all) to 7 (extremely). See Table 1 for reliabilities. The judges also used 1–7 scales to rate the faces on attractiveness and emotional expression; these measures were used for statistical control.

*Identification raters.* Two different sets of four identification raters were recruited to report their perceptions of each target's racial identification level. For Blacks the judges consisted of two White judges, one Asian American, and one Latino American judge. Three of the judges were female. For Latinos, one identification rater was White and three were Asian American. Three raters in each set were female. They were also blind to the study hypotheses and unacquainted with targets.

The identification judges received the following instructions:

> *Today, we're asking you to look at these pictures of (African-Americans/Latino Americans), and then provide your guess about how they would think about themselves. There are no right or wrong answers; we're simply interested in your gut response.*

They then reported their inferences about each target individual's racial/ethnic identification using the Luhtanen and Crocker's (1992) identification centrality subscale. See Table 2 for reliabilities.

*Results*

*Phenotypic prototypicality correlated with perceived identification*

To examine whether PP is used as a cue by observers to infer a person's racial or ethnic group identification, we correlated average target PP scores with judges' ratings of the targets' racial identification. These two variables were significantly positively correlated for both Blacks, $r(15) = .83$, $p < .001$ and Latinos, $r(36) = .77$, $p < .001$: evidence that PP is related to inferences about minority target's racial identification.

*Phenotypic prototypicality correlated with actual identification*

Analyses revealed a positive correlation between PP scores and self-reported identification (Blacks: $r(15) = .59$, $p = .02$; Latinos: $r(36) = .37$, $p = .03$), indicating that Blacks and Latinos who are higher in PP are more highly identified with their racial group than those lower in PP.

*Judges accurately infer target identification*

To test whether the judges were able to accurately infer racial identification, judges' perceptions of target identification were correlated with targets' self-reported identification. This analysis revealed that judges had greater than chance accuracy (i.e., $r > .00$, see Ambady, Hallahan & Conner, 1999); judges' ratings of target identification were positively correlated with self-reported identification for both Blacks, $r(15) = .73$, $p = .002$, and Latinos, $r(36) = .40$, $p = .02$. Thus, individuals are able to accurately detect the racial identification of unknown individuals based upon nothing more than their appearance.

*Ruling out alternative explanations*

Despite the external validity associated with having participants judge targets as they naturally presented themselves, we conducted follow-up analyses to address potential confounds caused by the targets' accessories. Targets may use accessories to convey their racial identification to others: consistent with the idea that people are motivated to have others see them as they see themselves (Swann & Reed, 1981). Thus, identity judges may have based judgments on the accessories rather than on pure PP.

To conduct control analyses, targets' accessories were rated. Target faces, from the images described above, were grayed out. This process eliminated PP cues including facial features and skin tone. All that remained in the images were the targets' accessories: including earrings, scarves, hats, glasses, etc. and hair. See Supplementary data for sample image. Four undergraduate research assistants (three White and one Asian, three are females) were recruited to code these accessories.

Accessory judges were given the following instructions: "We're asking that you rate the appearance (clothing, hairstyle, accessories etc.) of the following images." After reading the instructions, accessory judges rated each image by answering the first three

**Table 1**
Reliability of phenotypic prototypicality ratings.

| Target race | PS judges' Cronbach's α | | | | Intraclass correlation |
|---|---|---|---|---|---|
| Black | .99 | .92 | .96 | .95 | .98 | .96 |
| Latino | .71 | .92 | .89 | .91 | .81 | .83 |

**Table 2**
Reliability of racial identification ratings.

| Target race | Identification raters' Chronbach's α | | | | Intraclass correlation |
|---|---|---|---|---|---|
| Black | .79 | .86 | .89 | .92 | .88 |
| Latino | .84 | .82 | .90 | .90 | .86 |

[5] Participants completed these measures alone in a room.

questions used in PP judging (described above).[6] Judges were not told that the targets were minorities. See Table 3 for reliabilities.

To examine the unique contribution of PP (controlling for the stereotypicality of targets' accessories), we ran the correlations described above and partialled out the variance explained by accessory stereotypicality. Even after removing the potential influence of targets' accessories, PP remained correlated with identification and identification inferences were accurate. See Table 4 for correlations.[7, 8]

We ran the correlations described above including the mixed-race variable, attractiveness ratings, and emotional expression as covariates in addition to the stereotypicality of accessory ratings. All of the correlations remained positive and statistically significant with the exception of the relationship between PP and actual racial identification for Latinos, which had the same direction and similar magnitude, but was no longer significant, $r(30)=.27$, $p=.14$.

### *Discussion*

Experiment 3 provided a naturalistic replication of experiments 1 and 2: demonstrating that PP is related to inferences about racial identification. It revealed that outgroup members' assumptions about the relationship between appearance and identification are based on reality, as minorities' PP was positively correlated with their self-reported racial identification. Importantly, experiment 3 also revealed a significant positive relationship between perceptions of racial identification and self-reported racial identification: indicating that outgroup members can accurately infer the racial identification of Blacks and Latinos.

## General discussion

Recent research reveals that inferences about racial identification have important consequences for how minorities are treated (Dovidio et al., 2009; Kaiser & Pratt-Hyatt, 2009). Inspired by this research, the present investigation sought to understand whether and how racial identification is perceived. Specifically, we examined whether the degree to which racial minorities look like prototypical members of their racial group (PP) causes observers to draw inferences about minorities' racial identification. We also examined whether these inferences are grounded in reality by testing whether PP was related to minorities' actual level of racial identification. Finally, we explored whether observers could accurately determine minorities' level of identification by relying upon their physical appearance.

Studies 1 and 2 established that participants perceived high PP Blacks as being more racially identified than those low in PP. One explanation for this relationship is that PP signals similarity with the ingroup (Maddox, 2004) and perceptions of similarity include assumptions about psychological identification. Additionally, it is possible that participants were reporting a relationship that they have observed in real life; participants may have noticed that high PP individuals are actually more identified than low PP individuals.

Experiment 3 revealed that there is, in fact, a relationship between PP and self-reported identification among Blacks and Latinos; minorities with high PP were more racially identified than those low in PP. The relationship between appearance and identification may occur for a number of reasons. Perceivers' assumption that minorities high in PP are highly identified with their racial group may affect the extent to which racial minorities actually identify through a self-fulfilling prophecy. For example, outgroup members may assume that high PP individuals prefer to interact only with ingroup members, and thus, they may be more reluctant to engage with high PP minorities. The high PP individuals may consequently have fewer opportunities to interact with outgroup members than their low PP counterparts and may thus feel that their racial group is more important to their sense of self than low PP individuals. Alternately, Whites may treat high PP minorities more coldly than low PP minorities, because of racial phenotypicality bias (Maddox, 2004) or as a result of inferences about minorities' racial identification (Kaiser & Pratt-Hyatt, 2009). Cold interactions with Whites may cause high PP minorities to become more identified with their racial group as a coping strategy for perceived prejudice (see Branscombe, Schmitt & Harvey, 1999). Testing the specific mechanisms that tie PP and self-reported racial identification together provide interesting directions for future research.

Experiment 3 also reveals that outside observers can accurately detect Blacks and Latinos' racial/ethnic group identification at levels above chance, even after controlling for extraneous cues (the stereotypicality of targets' accessories). The strong correlation between PP and inferred identification suggests that PP plays a role in inferences about identification. This is a critical piece in understanding why Whites react negatively toward strongly identified minorities than they do towards the weakly identified (Kaiser & Pratt-Hyatt, 2009), as one cannot assume that Whites will behave differentially towards racial minorities based upon identification if Whites are unable to detect identification.

The *degree* of accuracy that we found for the identification judgments is noteworthy. The correlations are on par with or substantially higher than, correlations found in other studies that examine the accuracy of judgments based upon minimal exposure to targets. A meta-analysis of thin slice research reveals that the overall effect size ($r$) based upon 38 different results was .39 (Ambady & Rosenthal, 1992). The meta-analysis included studies that examined ratings of behavioral clips up to 5 minutes in length. Our judges displayed comparable accuracy for ratings based upon mere photographs. Individuals may be even more accurate in inferring the racial identification of racial minorities with whom they have had an opportunity to interact.

It is also notable that the effects in experiment 3 were observed for both Blacks and Latinos: two groups with profoundly different histories in the US and with different manifestations of PP. The consistency in our results speaks to the generality of this phenomenon. It also raises the

**Table 3**
Reliability of accessory stereotypicality ratings.

| Target race | Judges' Cronbach's α | | | | Intraclass correlation |
|---|---|---|---|---|---|
| Black | .94 | .96 | .90 | .95 | .88 |
| Latino | .77 | .88 | .92 | .96 | .86 |

**Table 4**
Partial correlations (controlling for accessory stereotypicality ratings).

| | Blacks | | Latinos | |
|---|---|---|---|---|
| Subscale | Perceived ID | Actual ID | Perceived ID | Actual ID |
| PS | .80* | .66** | .77* | .33*** |
| Perceived ID | | 78* | | .37** |

* Correlation is significant at the 0.001 level (2-tailed).
** Correlation is significant at the 0.05 level (2-tailed).
*** Correlation is significant at the 0.06 level (2-tailed).

[6] These questions were worded exactly the same way for the accessory judgments as they were for the PP judgments.

[7] Even when perceived, identification scores were computed using only three items (excluding the item that could be interpreted as referring to physical appearance—see Footnote 3); all correlations remained significant.

[8] Accessory stereotypicality was positively associated with PS scores for both Black, $r(15)=.49$, $p=.06$, and Latino targets, $r(36)=.37$, $p=.03$. Accessory stereotypicality was not significantly related to judges' perceptions of targets' racial identification for either Black, $r(15)=.37$, $p=.17$, or Latino targets, $r(36)=.21$, $p=.21$. Accessory stereotypicality also was unrelated to targets' self-reported racial identification (Blacks: $r(15)=.02$, $p=.96$, Latinos: $r(36)=.21$, $p=.21$).

empirical question of whether PP will be associated with inferences about identification for other groups; for example, do people assume that the degree to which a woman looks like a prototypical woman influence assumptions about her gender identification?

Our work provides a potential link between the racial phenotypicality bias literature (e.g. Maddox, 2004, Eberhardt et al., 2006; Blair, Judd & Chapleau, 2004) and the recent findings showing that Whites react more negatively toward strongly than weakly identified minorities (Kaiser & Pratt-Hyatt, 2009; Dovidio et al., 2009). Our evidence, that PP and judgments of identification are linked, raises the possibility that racial phenotypicality bias is, in part, a reflection of inferences made about strongly identified minorities, and vice versa. As experimental pardigms that have examined these two phenomena have separately manipulated identification or appearance, it is possible that when participants viewed a high PP target, they automatically assumed that he was also highly identified. Similarly, when reading about a strongly identified target in the absense of a photograph, participants may have imaged a high PP individual.

This work contributes to a relatively new body of research that explores the ways in which within-group variability impacts judgments about racial minorities (e.g. Blair et al., 2002; Maddox, 2004, Uhlmann et al., 2002) and leads to divergent experiences of group members (Dovidio et al., 2009; Eberhardt et al., 2006; Kaiser, & Pratt-Hyatt, 2009). In a society with strong social norms that discourage category-based discrimination, it is increasingly important to examine the ways in which people may distinguish between individual group members along dimensions that vary within a single group.

## Appendix A. Supplementary data

Supplementary data associated with this article can be found, in the online version, at doi:10.1016/j.jesp.2010.05.017.

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