

Bicultural Identity and Memory Conformity

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In the criminal justice system, eyewitness testimony is crucial in determining the offender's identity, and oftentimes, it is the only evidence available. However, psychology researchers have critiqued the system's reliance on eyewitnesses as a reliable source of evidence, noting that the mistaken identification rates can be high. More disturbingly, research has shown that eyewitnesses exhibit overconfidence in their decisions, even when they mistakenly identify someone from the police line up, increasing their willingness to give evidence in court. These research findings did not garner the attention of criminal justice personnel until the first DNA exoneration in 1989. Since then, post-conviction DNA evidence has illustrated that mistaken eyewitness identification contributed to approximately 69% of the 375 wrongful convictions (Innocent Canada, n.d.). With mistaken eyewitness identification as the largest factor contributing to wrongful convictions, it corroborated the warnings of early eyewitness identification researchers. In spite of the development of forensic DNA tests and the growing research on eyewitness reliability, eyewitness identification remains a crucial component of crime solving since most crimes do not leave DNA-rich biological evidence. Thus, with abdicating eyewitness identification unavailable as an option, the focus of research should be on understanding the factors impacting eyewitness identification performance and consequently improving the accuracy.

Memory conformity has been researched as a cause of eyewitness identification inaccuracy. In regard to conformity, individuals who have a lower status are more likely to conform to beliefs and attitudes of the dominant group. This is especially applicable to the population of North Americans who are children of immigrants from a visible ethnic group. They face a unique challenge in juggling between engaging with the mainstream larger society

and maintaining ties to their ethnic heritage. Yet, despite policies aimed at promoting multiculturalism, such as the 1995 Employment Equity Act in Canada, members of visible minority continuously face discrimination, resulting in a learned association between their ethnic and racial status with social exclusion. In an experimental study involving rating abstract artworks, Taforadi et al. (2002) illustrated that when physical dissimilarities are made salient with a mirror, bicultural Chinese Canadians will increase conformity with the perceived majority group's norms. Relating back to eyewitness identification, this attitudinal conformity exhibited by bicultural individuals has severe implications on the criminal justice system's values for fairness and threatens the validity of direct testimonial evidence. This leads to the research question: What is the effect of a majority group's judgment on bicultural Asians' ability to identify a criminal suspect, given that their visible minority status has been made salient?

Memory Conformity

Previous research has identified memory conformity as a source of inaccuracy for eyewitnesses, in which eyewitnesses' reports converge with those of their co-witnesses after their interactions (Gabbert et al., 2003). This memory conformity applies to peripheral information, such as the color of the culprit's shirt, to more central information, such as the identity of the culprit. Thorley (2015)'s experiment recreated the circumstance in which the latter scenario occurs. Participants were shown footage of a crime taking place but received a misleading statement from a previous witness who blamed an innocent bystander for committing the crime. When asked who committed the crime, many participants conformed to the misleading co-witness. Though the experiment may not be an accurate representation of how misinformation spreads in co-witness discussions, the possibility of something similar happening in real life is high: approximately 86% of crime eyewitnesses discuss incidents with others as a

means of validating their own account before their official statements, leaving potential room to be influenced by others (Blank, 2009; Williamson, Weber, & Robertson, 2013).

As for the motivation underlying conformity, researchers argued that eyewitnesses are more affected by a desire to be accurate in their reports, instead of gaining social approval, since participants naturally incorporated information from co-witnesses in their individual recall tests (Goodwin et al., 2012; Deutsch and Gerard, 1955). Informational influence suggests an element of intentionality in the eyewitnesses' conformity as they perceive their co-witnesses' source of information as more likely to be accurate. Moreover, in the previously mentioned experiment, participants only chose to conform to co-witnesses that they deemed as having good memory, such as young adults, evincing blame conformity as an intentional process (). How the co-witness' age affects the eyewitness performance suggests that socio-demographic variables play an important role in determining the degree of memory conformity.

The literature on eyewitness accuracy identifies age and gender as variables that can affect eyewitness performance (Areh, 2011; Megreya, Bindermann, & Havard, 2011; Memon, Bartlett, Rose, & Gray, 2003; Rehnman & Herlitz, 2007; Yarmey, 2004). For instance, there is a positive association between the age of the eyewitness and the accuracy of eyewitness identification, with younger adults performing better than children and the elderly (Pozzulo & Lindsay 1998). Specific to the susceptibility of memory conformity, the research on socio-demographic variables is contradictory. For instance, multiple studies have produced evidence indicating that male eyewitnesses are more susceptible to co-witness misinformation (Eck, Thoftne, Sponsor, & Vanvoorhis, 2008; Loftus, Levidow, & Duensing, 1992), but there are also evidence to suggest that there are no gender differences (Butts, Mixon, Mulekar, & Bringmann, 1995; McWilliam & Mojtahedi, 2018; Schwarz, 2013). For age, Gabbert et al. (2003) found no

significant differences between young and elderly adults (18-30 vs. 60-80) in eyewitness suggestibility during memory recall. However, in a later study, Gabbert et al. (2004) found that younger adults (17-33 years) were more susceptible to incorporating their co-witness' misinformation into their own memory recall reports, compared to the older adults (58-80 years). The researchers attributed this to younger adults exhibiting greater levels of normative pressure due to their heightened need for social acceptance, relative to older adults. The discrepancy between these studies could be attributed to the differences in experimental designs and the use of different stimuli in memory recall tasks.

In all, the majority of existing research focused on the effects of age and gender-related differences in co-witness suggestibility. While there are papers on race in the eyewitness literature, they focus on how ethnic members may be primed to have better facial recognition memory of their in-group members (Marsh et al., 2016), exploring the cross-race effect. Thus, there is a gap in literature on how race and ethnicity may affect the susceptibility of eyewitnesses to blame conformity.

Bicultural Identity

The immigrant story is a common narrative in North America. In attempting to fit into the American melting pot, or the Canadian mosaic, immigrants and their successive generations had shaped their individual and collective identities. As today's immigrants to Canada and the United States are predominantly from South or East Asia, there is a corresponding growth in the number of visible minorities who are of the second generation, or the "one-and-a-half" generation (Rumbaut 2004). These bicultural children of immigrants must navigate and reconcile the disparities between the values, beliefs, traditions, and social practices of their family's culture and the culture imposed by public education, peers, employment, and popular culture. On top of

the challenge to reconcile two different cultures, they often face barriers to inclusion based on their physical dissimilarity to the dominant group in society. Responses to the social costs of visible minority status are varied, ranging from rejecting the majority group to dissociating from their ethnic community. For the one-and-a-half and second generation, their childhood experience growing up in the dominant culture makes withdrawal or disengagement from it difficult (Minoura, 1992). As a result, their reaction to social costs is typically an increased conformity with majority group norms, practices, and ideals to compensate for their physical distinctiveness consciously or unconsciously. In general, past research reveals that individuals often shift their attitudes toward what they think a desirable majority believes (Wood, Pool, Leck, & Purvis, 1996).

To explore this hypothesis in the context of eyewitness identification, this present study measured the effect of a majority group's norm on the judgment of bicultural Asians in identifying criminal suspects when awareness of their visible minority status is heightened. I predicted that bicultural children of immigrant participants would be more likely to conform to the decisions of the majority group in identifying a culprit when their visible minority status was made salient.

Method

Participants

130 participants from the United States were recruited via Amazon Mechanical Turk (MTurk; www.mturk.com). MTurk is a practical and acceptable platform for collecting data in psychological research, and studies of cultural identity have had precedent in recruiting from this platform (Liu et al., 2017; Mok & Chiu, 2019; Slabu et al., 2014). The sample size of 130 was calculated on G*Power using an estimated medium effect size of $f_2 = 0.15$. To be eligible for the

study, participants underwent a pre-screening survey to identify if they are an one-and-a-half or second generation of East Asian descent. Pre-screening questions included country of birth, proficiency of English, the age of immigration, and ethnicity of parents. This process ensured that qualified participants are a clear visible minority in the United States and Canada. Screening for participants who immigrated before 12 years old ensures a higher likelihood of them identifying with mainstream Western culture. The question of fluency in English is asked since linguistic adaptation has been identified as a primary requirement for the development of bicultural identity (Dion & Dion, 1996; LaFromboise et al., 1993).

Four participants did not respond to a majority of the questions and were eliminated from the analysis. The final sample was 126 (65 male, mean age = 29.70, SD = 7.37, years in Asia = 11.62, SD = 10.03; years in America = 18.51, SD = 12.28). Of these participants, 83 (66%) were first-generation biculturals (born in an Asian country) and 43 (34%) were second-generation biculturals (born in the United States). Participants were paid USD 6 per hour. Participants' gender had little effect on the results in this study, so its descriptive statistics is not discussed in this paper.

Materials and procedure

Participants completed the online survey via a link to Qualtrics. The consent form described the study as examining identity and eyewitness identification. Participants were then shown a video produced by American Psychologist Gary L. Wells et al. (2003) depicting a bomber on the roof. Participants were asked to rate a series of 30 faces to identify the culprit but reminded that the culprit may not be in the series of photos to reduce false misidentification and overt concerns with correctness. All faces used in this study were taken from Generated Photos, an AI engine that creates hype-realistic human faces. Faces were generated randomly by the

program to match the criteria of White, young adult, male, black hair, and brown eyes, to best imitate the figure depicted in the video. Participants rated these faces by dragging a randomly placed anchor on a continuous scale from 0 to 10, with 10 representing utmost certainty that the depicted face is that of the culprit in the video. For this part of the survey, participants were told that the anchor position was generated at random.

Then, participants were randomly assigned to either the condition of making visible minority status salient, or the control condition. Those in the heightening visible minority status were asked to write a brief paragraph to “describe a time you have been discriminated against due to your ethnic origin”. Following the written response, participants were asked again to rate 30 more faces (with 10 most neutrally rated images from before repeated) to identify a criminal suspect. This time, the anchor’s initial position is labeled as the average White-American rating. Participants are thus made to believe that any movement away from the anchor’s initial position reflects a deviation from the majority group’s beliefs. In both conditions, the 10 faces that had the most neutral rating (5) from the first series of ratings were randomly mixed in with the new faces. In addition, for these 10 faces in the second series, the arrow appeared on the rating scale at the position to which the participant had moved it on the first presentation. However, participants are unaware of this change and view the anchor’s position as either randomly generated or the majority group’s average decision. Thus, movement of the anchor away from the start point on the second presentation represents a combination of nonconscious attitude change and disinclination to agree with what is perceived to be group average or random point. In contrast, less willingness to deviate from the average rating reflects relative conformity. These 10 faces provide a more sensitive index of normative influence than the rest of the faces in the second series that were rated by movement from a random point on the scale. Consistent with the

hypothesis, it was predicted that participants who had their visible minority status made prominent through priming exhibited more conformity in identifying suspects than the control group. After completing the second set of ratings, participants completed questionnaires. Participants rated on a scale of 1 (very weak) to 7 (very strong) their level of identification with Asian culture ($M = 5.43$, $SD = 1.19$) and American culture ($M = 5.58$, $SD = 1.24$). Levels of Asian and American identification were relatively high, suggesting that participants are self-identified biculturals. Then, participants completed a four-item measure of Bicultural Identity Integration (BIIS-1, Cultural Conflict Scale; Benet-Martínez & Haritatos, 2005) (“I feel conflicted between the American and Asian ways of doing things,” “I feel like someone moving between two cultures,” “I feel caught between the Asian and American cultures,” “I don’t feel trapped between the Asian and American cultures”) on a scale of 1 (strongly disagree) to 7 (strongly agree). The first three items were reverse scored, then the average of all items were computed to form a Bicultural Identity Integration score ($\alpha = .63$; $M = 3.85$, $SD = 1.09$). Higher scores for this measure reflect more integrated cultural identities. Finally, participants were fully debriefed after an average session time of 30 minutes.

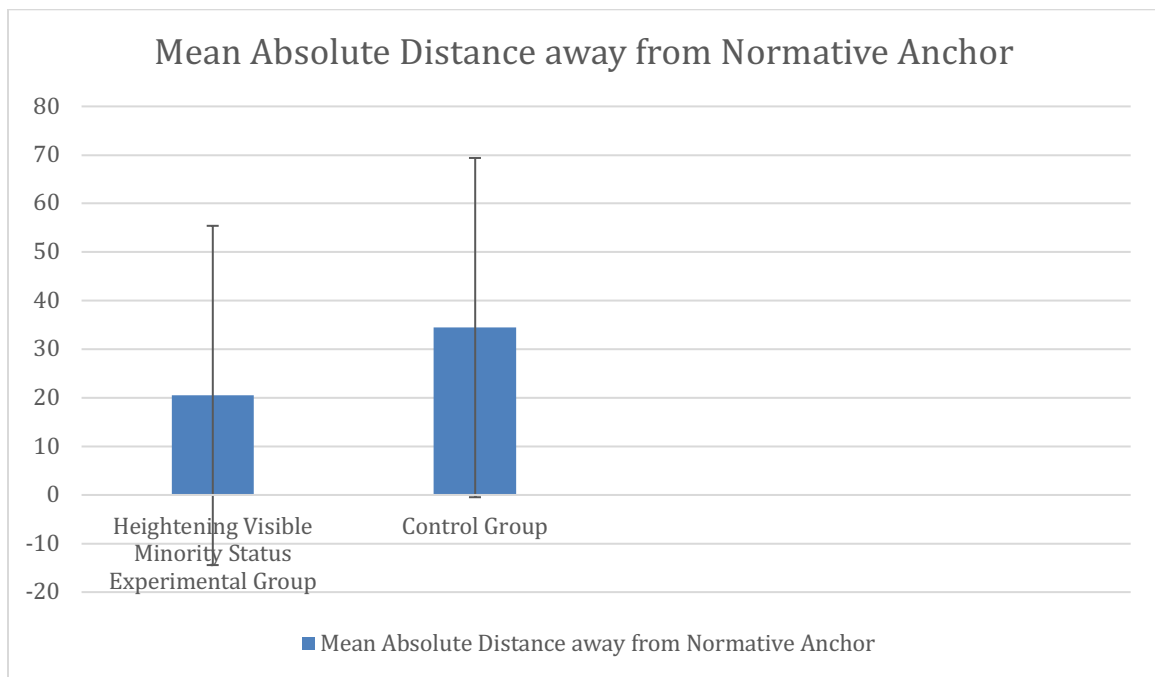
Result

Questioning during debriefing confirmed that participants in the condition for heightened visible minority status believed that the initial position of the rating arrow was random during the first series but normative (the average rating of White-Americans) during the second series. Participants in the control condition believed that the initial position of the arrow was random during both series. Furthermore, none of the participants recognized the 10 critical faces as having been presented twice.

Table 1 Absolute Movements from Normative Anchor

	Heightened Visible Minority Status	Control Group
Mean	20.49	34.46
Standard Deviation	11.16	12.22
N	65	65
T-statistics	-4.5296	
Effect Size	0.79	
Degree of freedom	128	
P value	0.00001337	

Values represent absolute movement from the normative anchor for the 10 paintings presented twice. Higher means represent greater deviation from the perceived norm (less conformity).



The mean absolute distance (where 1 scale unit \approx .34 mm) of movement from the rating anchor for the 10 faces served as the measure of adherence to the perceived group norm. Thus, greater mean distance implies greater willingness to deviate from the norm, and lesser mean distance implies conformity. To test whether bicultural individuals demonstrated greater conformity towards the majority group's average rating of suspects compared to the control group, this study utilizes a two-sample independent t-test at an alpha level of 0.05. The alpha level of 0.05 was chosen because it is a good balance between the two potential errors of

incorrectly rejecting that there being no difference in proportions or distribution for the test above, and incorrectly failing to reject it. The null hypothesis for this experiment is that there is no mean difference in the absolute distance of movement away from the normative anchor between bicultural individuals in the control group and those with heightened awareness of their visible minority status. The alternative hypothesis is essentially the opposite: there is a mean difference in the absolute distance of movement away from the normative anchor between the two conditions in the experiment. The data conditions are met in this study to utilize a t-test. Each data value of the absolute distance away from the anchor is independent and does not affect measurements for any other observation. Through utilizing Mturk, the sample of participants used in the study is representative of the overall population in North America. As the analyzed data is of absolute distance on scale, the values are continuous.

Based on the descriptive table in figure 1, I calculated the p-value to be 0.00001337, ($p(x \leq T) = 0.000006685$), meaning that the chance of type I error or rejecting a correct null hypothesis is as small as 0.0013%. The test statistic T equals -4.5296, which is not in the 95% region of acceptance: [-1.9787: 1.9787]. The mean difference between the two conditions is 13.97, which is not in the 95% region of acceptance: [-6.1025: 6.1025]. The observed effect size d is large, 0.79. This indicates that the magnitude of the difference between the average of mean distance away from normative anchor in the control group and that of the experiment group is large. These statistics, especially the p-value of 0.00001337 which is significantly below the set alpha level of 0.05, suggests rejecting the null hypothesis and accept the alternative hypothesis that there exists a mean difference in absolute distance away from the anchor. In other words, participants who have been primed with heightened visible minority status are on average exhibiting greater conformity to the majority group rating.

Discussion

This study examined the social influence of a majority group's decision. Asian Americans, a clear visible minority, were expected to agree more with the perceived opinions of the majority cultural group when their awareness of visible minority status was heightened. These predictions were derived from the theoretical position that the bicultural challenge of many children of immigrants involves a desire for full inclusion within the dominant culture, and conforms to the majority culture to compensate for the distinctiveness of their ethnic status. Consistent with the conformity prediction, Asian Americans were especially inclined to agree with what they believed was the average attitude of White Americans after their visible minority status was heightened through priming. Although participants might associate research studies to the context of a majority group, the evidence for conformity towards a majority group's belief without the presence of White Americans shows the significance of the phenomenon. In addition, the finding demonstrated how even for an important choice of identifying a culprit, bicultural individuals were vulnerable to social influence. This study contradicts the previous research which emphasized informational influence as the motivator for blame conformity.

The results of the present study highlight the vulnerability of eyewitnesses to co-witness influence. The implications of such findings highlight the need for investigators to identify whether eyewitnesses to crime will have discussed the event with others prior to giving their statements—a procedure that has been recommended in previous research (see Kieckhafer & Wright, 2014; Mojtahedi et al., 2018b).

Studies on cultural compensation by the children of immigrants have been increasing. The findings in this study corroborates with existing literature and highlights the rapid and

spontaneous adoption of mainstream cultural beliefs, preferences, and practices by this segment of the population (Chin & Lee, 1996). Compensation as a consequence of biculturality in the context of eyewitness identification is therefore not incompatible with previous perspectives. However, there is much to be explored in terms of exploring if bicultural individuals view the majority group's information as more valid or the majority group have normative influence over bicultural individuals. Moreover, the study was conducted online, which may not generalize well to an in-person setting of police lineups. In all, with ethnocultural diversity increasing in the West, compensatory conformity and other responses to biculturality are more visible than ever before. Understanding the distinctive motivational tendencies of the children of immigrants to integrate into North American society with their bicultural identity would lend us greater insight into creating equity for all populations.

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