The effect of authority on eyewitness memory reports across cultures

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Abstract

The culture in which individuals have been socialised can impact on both behaviour and psychological processes. Drawing on the Power Distance (PD) cultural dimension, we examined whether eyewitness reports provided by individuals from different cultural backgrounds are affected by who those reports are provided to, in this case an authority figure or a peer. We sampled participants (N = 115) from Ghana (high PD culture; n = 66) and the Netherlands (low PD culture; n = 49). In a 2 (Cultural orientation: high PD vs. low PD) X 2 (Reporting context: Police vs. Peer) design, participants viewed a mock crime event and later provided free and cued recalls. High PD culture mock witnesses reported similar amount of details when reporting to police and a peer. Low PD culture mock witnesses reported more details when reporting to police than when reporting to a peer. Overall, mock witnesses from a low PD culture provided more details than mock witnesses from a high PD culture, irrespective of reporting context. Our findings suggest that reporting to a perceived authority figure in an investigative context may affect the content of eyewitness reports as a function of cultural background.

Keywords: Eyewitness reports, power distance, culture, investigative interviewing

Introduction

Eyewitness accounts can be crucial for efficient police investigations and the effective pursuit of justice within the legal system. Specifically, detailed accounts can provide valuable leads in the course of investigations. However, accounts that are sparse or lacking in detail can frustrate investigative efforts and have implications for judicial decisions in criminal prosecutions. Given the important role of eyewitness evidence in dispensing justice (Wells et al., 2020), researchers have investigated how best to elicit detailed accounts from eyewitnesses (Dando et al., 2018; Fisher, Geiselman, & Amador, 1989; Gabbert, Hope, & Fisher, 2009). In an globalised world, interviewers are increasingly likely to encounter people from different cultures in the conduct of investigations so understanding the impact of cultural factors on eyewitness accounts is vital (Anakwah et al., 2020a; De Bruïne et al., 2018; Hope et al., 2022). As individuals, eyewitnesses have been socialised into their respective cultures, hence, culturally determined reporting norms may play out in social situations, such as the investigative context.

The role of authority is an important aspect of investigative interviewing. In eyewitness interviews, the interviewer is typically an authority figure, such as a police investigator (McCallum et al., 2016). Similarly, in intelligence gathering contexts, immigration settings, and counter-terrorism contexts, interviews are conducted by individuals who assume the role of an authority figure. Different cultures have different norms regarding relating or interacting with authority figures (Hofstede, 2011). It is not clear whether or how such dynamics might impact on the nature or content of reports from memory in an investigative context. Understanding the impact of this cultural factor on investigative interviewing is important in developing culturally sensitive investigative interview techniques. In the current research, we examined whether there is any preliminary evidence

for an authority effect in the eyewitness reports provided by eyewitnesses from different cultures.

Authority and investigative interviewing

Authority is characterised by an influence that one social actor exerts over another (Morselli & Passini, 2011) and has been argued to determine the outcome of social interactions (Cialdini, 2013; Milgram, 1963; Plazinić et al., 2019). In fact, according to Cialdini (2013), individuals are socialised right from birth to obey authority figures, thus authority can exert a powerful influence. The influence by authority may be subtle or direct and permeates all aspects of society, including the legal system. Indeed, in law enforcement and other investigative contexts, interviews are conducted by investigators who are explicitly accorded an authority status.

Perceived authority in investigative contexts may impact on the amount of information an interviewee is willing to provide. Specifically, research suggests that authority influences informational outcomes within an investigative interview context (Goodman-Delahunty & Howes, 2016; Matsumoto & Hwang, 2019). In a recent study, participants took part in a mock crime and later provided written statements and were interviewed in a high or low authority context (Matsumoto & Hwang, 2019). Authority was manipulated by using subtle cues in the interview context. In the high authority condition, the interviewer was formally dressed in a suit, tie, and had a photo ID. On the wall of the interview room, in clear sight of the interviewee, hung two award certificates from the law enforcement agency bearing the (fictitious) name of the interviewer and attesting to the competence of the interviewer. A photoshopped image of the interviewer with a well-known law enforcement official also hung on the wall in the interview room. In the low authority condition, the interviewer wore a plain white shirt and had no photo ID. An award certificate also hung on

the wall but the inscriptions on it were unintelligible and no link was made to the interviewer. Participants in the high authority condition provided more explicit details in both verbal and written statements. However, in this study all participants were individuals born and raised in the same culture (western context), hence findings may not replicate to other contexts considering cultural differences in relating with authority figures.

The social dynamics of the interaction when individuals from different cultures are being interviewed by an authority figure may be affected by cultural factors pertaining to perceived authority (Ghosh, 2011; Goodman-Delahunty & Howes, 2016). Given that cultural norms in interacting with authority figures differ (Khatri, 2009), the social dynamics present when an investigator conducts interviews with eyewitnesses from different cultures may not be the same across witnesses. It is, therefore, reasonable to argue that authority might affect the reporting of information differently across witnesses with different cultural backgrounds.

Authority and culture

An individual's cultural background may impact social interactions with authority figures (Hofstede, 2011; Khatri, 2009). The cultural dimension of power distance concerns how the perceived inequality in society might affect social interactions (Hofstede, 1983). Power distance refers to the extent to which members of a society accept and perceive inequality in power, prestige, and wealth (Oyserman, 2006). Cultures with high power distance endorse hierarchy in social relationships, while this is not the case in cultures with low power distance. In high power distance cultures, there is often a communication gap between subordinates and authority figures (Ghosh, 2011; Khatri, 2009). Specifically, hierarchy in communication norms can make it difficult for subordinates to express their views to superiors (Gosh, 2011). As such, in cultures with high power distance, free and spontaneous communication may well be inhibited.

The cultural dimension of power distance is associated with the cultural dimension of individualism-collectivism, with low and high power distance cultures mostly contrasting on the individualism-collectivism cultural dimension (Minkov et al., 2017). The individualism-collectivism cultural dimension concerns the extent to which individual members of a cultural group are considered integrated in (or separate from) their social context (Hofstede, 2011). In individualistic cultures, the relationship between individual members is conceptualised as loose, whereas in collectivistic cultures a tighter relationship among individual members of the cultural group is predicted (Hofstede et al., 2010). It has been argued that individuals from individualistic cultures have a tendency to prioritise their own thoughts, opinions, and view the self as more unique (Markus & Kitayama, 2010; Wasti et al., 2007). In contrast, it has been argued that individuals from collectivistic cultures are more likely to subordinate their opinions and preferences to that of the social group, in an effort to maintain group harmony (Wasti et al., 2007). Individualistic cultures include cultures in North America, Australia, and Northern Europe, while collectivistic cultures include cultures in East Asia, Latin America, and sub-Saharan Africa (Hofstede et al., 2010; Minkov et al., 2017). Some indigenous cultures including indigenous Australians are also collectivistic in cultural orientation (Gall, 2021).

Researchers have argued that these tendencies may result in cultural differences in self-presentation, where individuals socialised in collectivistic cultures show self-effacement (modesty), whereas those socialised in individualistic cultures show self-enhancement (Takata, 2003). These self-presentational differences may also have implications for cultural differences in confidence in performance (Heine et al., 2000). For example, when asked about how well they performed on a test, Japanese (collectivist) participants were reluctant to accept they performed better than their average classmate, whereas Canadian (individualist)

participants refused to conclude that they performed worse than their average classmate (Heine et al., 2000).

The individualism-collectivism cultural dimension has also been argued to shape the content of memory reports (Anakwah et al., 2020a, 2020b; Wang, 2006). Research has shown a consistent pattern of underreporting among individuals socialised in collectivistic cultures relative to counterparts from individualistic cultures (Anakwah et al., 2020a; Leal et al., 2018; Taylor et al; 2017). For example, in one study using a mock witness paradigm, participants sampled from Ghana (collectivistic culture) and the Netherlands (individualistic culture) provided a free recall account and answered questions about a crime event. Mock witnesses socialised in a collectivistic culture reported fewer details than those socialised in an individualistic culture, who provided more elaborate memory reports (Anakwah et al., 2020a). It may be that cross-cultural differences in relating with authority figures could account for the apparent underreporting among witnesses living in their native collectivistic culture. Specifically, it may be that mock witnesses perceived the experimenter as an expert, hence, impeding spontaneous reporting for mock witnesses socialised in collectivistic cultures. In line with that argument, data from that study show that mock witnesses from the collectivistic cultural group endorsed hierarchy more in social relationships than mock witnesses from the individualistic cultural group. Thus, interviewees with cultural backgrounds where hierarchy in social relationships is emphasised may not spontaneously provide detailed reports due to the perceived power status of the interviewer.

Current research

To date, research has not focused on how the cultural dimension of power distance might affect the quantity of information reported by eyewitnesses from different cultures. In the current research, mock witnesses were sampled from Ghana and the Netherlands. On

Hofstede's Power Distance Index, Ghana and the Netherlands score 80 and 38 respectively (where high scores indicate high power distance) and, as such, represent high and low power distance cultures. Participants in the role of mock witnesses viewed a crime event and later provided written free and cued recall reports to either a peer or police reporting context. Participants were asked to assume they were reporting to the audience in the respective reporting contexts. With respect to reporting context, we expected that mock witnesses from the high power distance culture would report fewer details to a police interviewer than to a peer interviewer reflecting cultural differences in power distance. Specifically, because power differences generally has an inhibiting effect (Ghosh, 2011), it was expected that reports of individuals from a high power distance culture would be impeded when reporting to a police detective (authority figure). This pattern was not expected for mock witnesses from a low power distance culture who we predicted would report a similar amount of details to police and peer (Hofstede, 2011) as hierarchy in social relationships is less emphasised in low power distance cultures. Thus, we expected that witnesses with low power distance cultural background would report the same amount of details regardless of the reporting context. Finally, based on research by Anakwah et al. (2020a), we predicted that mock witnesses from a low power distance/ individualistic culture will report more details than mock witnesses from a high power distance/ collectivistic culture, irrespective of reporting context.

Methods

Participants and design

A total of 115 participants were sampled for the study. The participants were recruited from Ghana (n = 66, M_{age} = 20.03 years, SD = 1.88) and the Netherlands (n = 49, M_{age} = 22.84 years , SD = 2.44). G*Power analysis shows this sample size is likely to achieve 80% power of detecting a true difference given a medium.The sample size is also consistent with

previous work examining the impact of authority on informational outcomes in investigative interviews (Matsumoto & Hwang, 2019; McCallum et al., 2016), as well as previous work on culture and memory (Jobson, 2006; Wang, 2009).

The two countries represent the cultural orientations of interest, with Ghana being a high power distance culture and the Netherlands being a low power distance culture (Hofstede et al., 2010). Thus, the selection of countries for inclusion in the current study is consistent with previous work on classification of national cultures, which was was based on extensive research on attitudinal surveys in 111 countries across the world (Hofstede, 1983; Hofstede, Hofstede, & Minkov, 2010). On Hofstede's Index, Ghana scores 80 whiles the Netherlands scores 38, with higher scores reflecting high power distance. The two countries also contrast on Hofstede's individualism-collectivism index, with Ghana scoring 15 and the Netherlands scoring 80 (where high scores reflect greater individualism and low scores reflect greater collectivism; See https://www.hofstede-insights.com/product/compare-countries/ for comparison of country scores).

All participants had a university-level education and were also proficient in the English language (Both participants in the Netherlands and Ghana were proficient English users. The official language in Ghana is English, which is the medium of instruction from basic to tertiary level of education). Participants in Ghana were recruited through announcements in university lecture halls. Participants in the Netherlands were recruited by advertisements on university campus. Participants were informed the purpose of the study is to help understand eyewitness accounts. Participants who volunteered for compensation received a €5 shopping voucher for participants in the Netherlands and GH₵10 voucher for phone credit, for participants in Ghana. Some participants opted to forego compensation after completing the experimental session.

The design was a 2 (Cultural orientation: High Power Distance, Low Power Distance) X 2 (Reporting context: Police, Peer) between-subjects design. The dependent variables were the number of correct details reported, number of unanswered questions, and confidence for both free and cued recall responses.

Materials

Stimulus event. The stimulus event was a recording of a mock crime about a theft in a travel agency. In the event, a courier wearing a motorcycle helmet and holding a parcel walks towards a travel agency. When the courier enters the office, she delivers the parcel to the receptionist, who signs for it. After signing for the parcel, the receptionist enters another room to fetch a glass of water while the courier is still present. As the receptionist enters the room, the courier quickly picks a laptop on the office desk and hurriedly leaves the office. Upon return with the glass of water, the receptionist realises the courier has left the office. As she sits down, she notices the laptop is no longer on the desk. The receptionist quickly rushes out of the office and sees the courier outside with the laptop. The receptionist raises an alarm by shouting. As the courier runs away, she bumps into a woman with shopping bags, making the shopping bags fall to the ground. The courier continues to run until she gets to a nearby garden where no one was present at scene. She removes her helmet, throws it into the garden, and leaves the scene. The duration of the event is approximately 1 minute 30 seconds.

Although the setting for the stimuli was a western European scene with actors having a western cultural background, we do not expect this to have a systematic impact on the study finding. In previous research where western European and Sub-Saharan African settings were used to examine eyewitness memory reports provided by mock witnesses from these cultures, the pattern of results was the same irrespective of whether it was a Western European or sub-Saharan African setting (Anakwah et al., 2020a; 2020b). Other previous cross-cultural

research also show similar pattern of responses regardless of the cultural setting of the crime, for individualistic and collectivistic cultural participants (e.g., Swallow & Wang, 2020).

Personal Cultural Orientation Scale **(Sharma, 2010).** This scale measures several dimensions of cultural orientation. For the purposes of our study, the Power and the Social Inequality sub-scales were used as an exploratory measure to measure self-reported power distance (Sharma, 2010). These two sub-scales measure the power and equality aspects of power distance. The Power sub-dimension measures the extent at which individuals accept differences in the power held by members in society, whereas the Social Inequality sub-dimension measures the extent at which individuals in society accept hierarchy in social relationship and considers inequality as normal (Sharma, 2010). The sub-scales have four items each. Sample items on the power sub-scale are '*I find it hard to disagree with authority figures*' and '*It is difficult for me to refuse a request if someone senior asks me*'. Sample items on the social inequality sub-scale are '*It is difficult to interact with people with different social status than mine*' and '*A person's social status reflects his/ her place in society*'. Items on the scale are measured on a 7-point Likert scale (1 = *strongly disagree*; 7 = *strongly agree*).

Only the social inequality sub-scale was rated significantly different between groups [$t(113) = 8.29$, $p < .001$, $d = 1.58$], with participants from Ghana ($M = 17.24$, $SD = 4.19$) rating higher on this dimension than participants from the Netherlands ($M = 10.98$, $SD = 3.74$).There was no significant difference in rating between groups for the power sub-scale [$t(113) = .53$, $p = .60$, $d = .10$]. It is important to mention that similar inconsistent observations have been made in similar samples where self-reported measure of cultural orientation was used to compare cultures (e.g., See Anakwah et al., 2020a; Anakwah et al., 2020b; Hope et al., 2023). In fact, previous meta-analytic revew shows that the use of cultural orientation scales for cross-cultural comparison is highly unstable (see Levine et al., 2003).

Procedure

Participants in the study were tested in person individually. After giving consent for participation, participants viewed the mock crime and then completed a filler task (visual illusion task) for 10 minutes. Participants were then asked to provide a handwritten free recall report about the event they had witnessed, consistent with previous research (Matsumoto et al., 2018). Participants in the police condition were told to assume they were reporting what they had witnessed to a police investigator. Participants in the peer condition were told to assume they were reporting what they had witnessed to a friend. The instructions for the respective conditions were on the reporting sheet on which participants were to provide their handwritten responses. This high vs low authority manipulation is consistent with previous work (McCallum et al., 2016). Participants in both conditions were instructed to be as accurate and detailed as possible in their reports. Participants had up to 10 minutes to complete their written free recall report, in line with previous research (Karpicke & Roediger, 2007; Zaromb & Roediger, 2010). They were also informed that should they finish before the 10 minutes elapsed, any remaining time would still be available to them before moving to the next task. All participants across groups completed their reports before the 10 minutes elapsed.

Following the free recall report, participants were asked to rate their level of confidence in their overall report on a scale of 1 (not at all confident) to 10 (very confident). Participants then completed a cued recall task in which they were asked six questions about the event (e.g., ‘What was the courier wearing?’ and ‘What items were on the employee’s desk?’). There was no time restriction for the cued recall task. At the outset, participants were reminded again of the audience for these answers (police or peer) and they were instructed to be accurate and detailed as possible in their answers and to avoid guessing. After they had provided the handwritten responses to the cued recall questions, participants rated their level

of confidence in their overall cued recall report, on a scale of 1 (not at all confident) to 10 (very confident). Participants then completed the cultural orientation scale (measures of Power and Inequality) and provided demographic information. All instructions and questions in the study were in English. Participants were debriefed and thanked for their participation after completion of the procedures. The study received ethical approval from [Blinded for review]. Study materials are available at the Open Science Framework: https://osf.io/jf9mt/?view_only=9b89454fee5547ba9f1e8386af034c15

Coding

A detailed coding template based on the target event was used in coding the transcripts (also used in Anakwah et al., 2021). Details were coded as correct if present in the filmed event and correctly described by participants (e.g., describing a white desk in the office). Details were coded as incorrect if the description was discrepant with what was in the film event (e.g., describing the office desk as brown, when in fact it was white). Vague (e.g., she was average height) and subjective (e.g., the man was handsome) responses were not coded. Responses that were left blank or completed with 'Don't know' or 'Don't remember' responses were coded as unanswered questions. A second coder coded 22% of the transcripts which were randomly selected to check consistency of coding. Both first and second coders were blind to the experimental conditions. We found high inter-coder reliability (ICC) for correct details both in free recall (.96) and cued recall (.94). Inter-coder reliability for incorrect details for free (.77) and cued recall (.85) were also high.

Results

Free recall

Cultural group had a significant main effect on the total number of details reported by mock witnesses, F (1,113) = 46.03, p < .001, η_p^2 = .30. Mock witnesses from the Netherlands (M = 40.11, SD = 10.92) reported more total number of details than mock witnesses from Ghana (M = 26.04, SD = 10.87). There was no significant main effect of reporting context on the total number of details reported, F (1, 113) = 2.17, p = .14, η_p^2 = .02. There was a significant interaction effect of cultural group and reporting context on the total number of details reported, F (1, 113) = 4.99, p = .03, η_p^2 = .04. Mock witnesses from the Netherlands reported more total details to a police than to a peer (p = .02). Mock witnesses from Ghana did not differ in the total number of details reported to police and peer (p = .67). See Table 1.

There was a significant main effect of cultural group for correct details reported in free recall, F (1, 113) = 52.78, p <.001, η_p^2 = .32. Mock witnesses from the Netherlands (M = 39.14, SD = 12.13) reported significantly more details in their free recall reports than mock witnesses from Ghana (M = 25.36, SD = 9.33) despite both groups receiving exactly the same reporting instructions. The main effect of reporting context on correct details reported was not significant, F (1, 113) = 3.36, p = .07, η_p^2 =.03. There was, however, a significant interaction effect between cultural group and reporting context for correct details reported, albeit small effect, F (1, 113) = 5.87, p = .02, η_p^2 = .05. Mock witnesses from the Netherlands reported more correct details when reporting to police than when reporting to a peer (p = .02). Reports provided by mock witnesses from Ghana did not differ in correct details reported to either police or a peer (p = .62). See Table 1.

[INSERT TABLE 1 HERE]

The accuracy rate for free recall was high in both cultural groups (Ghana – M = .98, SD = .03; the Netherlands – M = .98, SD = .02). The main effects of culture [F (1, 113) = .19, p = .67, η_p^2 = .002] and reporting context [F (1, 113) = .07, p = .80] on accuracy rate of

reported details were not significant. Also, the interaction between cultural groups and reporting context was not significant F (1, 113) = .54, p = .47, η_p^2 = .01.

We conducted an exploratory analysis on the confidence in reported details in free recall. There was a significant main effect of cultural group on confidence in overall report for free recall reports, F (1, 113) = 5.06, p = .03, η_p^2 = .04. Mock witnesses from Ghana (M = 8.61, SD = 1.16) were marginally more confident in their free recall reports than mock witnesses from the Netherlands (M = 8.16, SD = 1.01). Reporting context did not have a significant effect on confidence in free recall reports, F(1, 113) = 2.41, p = .12, η_p^2 = .02. The interaction between cultural group and interviewing condition was not significant, F(1, 113) = .45, p = .50, η_p^2 = .00.

A Person r exploring the relationship between confidence and accuracy in free recall showed that for mock witnesses from Ghana, there was a significant negative relationship between confidence and accuracy in free recall (r (66) = -.258; p = .036). However, there was no significant relationship between confidence and accuracy in free recall, for mock witnesses from the Netherlands (r (49) = .033; p = .821).

Cued recall

There was a significant effect of cultural group on total number of details reported in cued recall, F (1. 111) = 43.49, p < .001, η_p^2 = .29. Mock witnesses from the Netherlands (M = 19.49, SD = 6.05) reported more total details than mock witnesses from Ghana (M = 13.14, SD = 4.53). Reporting context had a significant effect on the total number of details reported, F (1, 111) = 5.17, p = .03, η_p^2 = .05. Mock witnesses provided more details when reporting to a police (M = 16.75, SD = 6.60) than when reporting to a peer (M = 14.95, SD = 5.48). The interaction between cultural group and reporting context was not significant, F (1, 111) = .86, p = .36, η_p^2 = .01.

There was a significant main effect of cultural group on correct details reported in cued recall, $F(1, 113) = 54.64$, $p < .001$, $\eta_p^2 = .33$. Mock witnesses from the Netherlands ($M = 18.43$, $SD = 5.79$) reported significantly more correct details in response to questions than mock witnesses from Ghana ($M = 11.80$, $SD = 4.30$). There was a significant main effect of reporting context for correct details reported $F(1, 113) = 6.72$, $p = .01$, $\eta_p^2 = .06$. Mock witnesses reported more correct details when reporting to a police investigator ($M = 16.40$, $SD = .4.97$) than when reporting to a peer ($M = 14.01$, $SD = 4.90$). The interaction effect between cultural group and reporting context was not significant $F(1, 113) = 1.72$, $p = .19$, $\eta_p^2 = .02$.

The main effect of cultural group on the accuracy of reported details was significant, $F(1, 113) = 6.19$, $p = .01$, $\eta_p^2 = .05$. Responses to cued recall questions provided by mock witnesses from the Netherlands ($M = .94$, $SD = .06$) were more accurate than responses provided by mock witnesses from Ghana ($M = .89$, $SD = .11$). Both the main effect of reporting context, $F(1, 113) = .40$, $p = .53$, and the interaction between cultural group and reporting context on the accuracy of details were not significant, $F(1, 113) = .93$, $p = .34$, $\eta_p^2 = .01$.

The main effect of cultural group on unanswered questions was significant, $F(1, 113) = 4.97$, $p = .03$, $\eta_p^2 = .04$. Mock witnesses from the Netherlands ($M = .73$, $SD = .73$) left more questions unanswered than mock witnesses from Ghana ($M = .42$, $SD = .75$). However, it should be noted that the number of unanswered questions was very small, less than one question on average. The main effect of reporting context on unanswered questions was not significant, $F(1, 113) = .00$, $p = .98$, $\eta_p^2 = .00$. The interaction between cultural group and reporting context was also not significant, $F(1, 113) = .21$, $p = .65$, $\eta_p^2 = .00$.

There was a significant main effect of cultural group on confidence in overall cued recall reports, $F(1, 113) = 11.30$, $p < .001$, $\eta_p^2 = .09$. Mock witnesses from Ghana ($M = 8.09$, $SD = 1.32$) were more confident in their cued recall reports than mock witnesses from the Netherlands ($M = 7.27$, $SD = 1.27$). The main effect of reporting context on confidence in cued recall reports was not significant, $F(1, 113) = .18$, $p = .67$, $\eta_p^2 = .00$. The interaction between cultural group and reporting context on confidence in cued recall reports was not significant, $F(1, 113) = .03$, $p = .86$, $\eta_p^2 = .00$.

A Pearson *r* showed there was no significant relationship between confidence and accuracy in cued recall, for both mock witnesses from Ghana (r (66) = .022; $p = .863$) and the Netherlands (r (49)= .052; $p = .722$).

Discussion

We investigated whether there is what might be described as an authority effect in the eyewitness memory reports provided by witnesses from different cultural backgrounds. In our sample of participants drawn from high and low power distance cultures, mock witnesses from the low power distance culture reported more details in free recall when told the audience for their report would be a police investigator than when told it would be a peer. However, the reports provided by mock witnesses from the high power distance culture did not differ in terms of the amount of information reported in free recall, regardless of whether the report was prepared for either a police investigator or a peer. Irrespective of reporting context, mock witnesses from the low power distance culture reported more details in their eyewitness memory reports than mock witnesses from the high power distance culture, in both free recal and cued recall. We also found a negative relationship between confidence an accuracy in free recall, for mock witnesses from Ghana. However, there was no relationnship between confidence and accuracy in free recall for mock witnesses from the Netherlands.

Mock witnesses from the high power distance culture sampled for the current study reported the same amount of details irrespective of who they were reporting to. Although this is not consistent with our hypothesis that such witnesses would provide less information when reporting to an authority figure, it is an interesting outcome, particularly in light of the pattern observed for low power distance mock witnesses. In hindsight, an alternative hypothesis might have been more plausible given the context. In a typical investigative context involving a high-stakes situation, a premium is likely placed on providing detailed information to an investigator – unlike in the relatively mundane context of telling a friend about what you saw. This speculation is consistent with our finding that mock witnesses from the low power distance culture reported more details when reporting to police than to a peer. As this pattern was not the case for the high power distance culture mock witnesses, perhaps perceived authority may have impaired reporting to the police. This speculation is in line with the argument that high power distance could impede free and spontaneous communication (Ghosh, 2011). In fact, in a previous study where mock witnesses from a collectivistic culture provided less detailed memory reports, it was also observed that they endorsed hierarchy in social relationships, compared to mock witnesses from an individualistic culture, who reported more details (Anakwah et al., 2020a). Similar observation was made in the social inequality dimension of the power measure in the current study, showing mock witnesses from the high power distance culture rated high on social inequality than mock witnesses from the low power distance culture. These results suggest investigators may need to consider how best to reduce interviewees' sensitivity to power dynamics that may impair reporting during investigative interviews. In addition to replicating these initial findings, future research should examine how exactly an authority effect in investigative interviewing settings affects the content of reports and how it can be mitigated, especially for witnesses from high power distance cultures.

The self-enhancing tendency, argued to be a predominant self-presentational norm among individualistic cultures (Yamagishi et al., 2012), may have accounted for the differences in reports provided to police and a peer, by mock witnesses from the low power distance (individualistic) culture. Mock witnesses from individualistic culture reported more details when reporting to a police detective, a more formal context than when reporting to a friend, an informal context. These two scenarios (police and friend) involve different stakes and might have led individuals from the individualistic culture to optimise their reports consistent with the stake or scenario involved. Thus, with higher stakes involved (reporting to police), the individualistic culture mock witnesses were motivated to adjust their self-presentation accordingly, and thus, engaged more in self-enhancement. Hence, for individuals from individualistic cultures, the motivation to be self-expressive is likely to be high in a more formal context. That speculation is in line with previous research showing that in formal settings, individuals are more likely to provide more useful information than in informal settings (Martín-Luengo et al., 2018). Thus, because reporting to police occurs in a formal context, it is possible this may have facilitated detailed reporting more than an informal scenario such as reporting to a friend, for mock witnesses from the low power distance (individualistic) cultural group.

The observed differences across cultures in optimising details provided to police may also reflect different experiences and attitudes towards the police in the respective countries. For example, excesses in policing such as police brutality and human rights abuses vary across countries (Boateng, Lee, & Abess, 2016; Ivcovic, 2008). Such excesses tend to be higher in developing countries than developed countries (Tankebe, 2010), most of whom fall within the collectivistic and individualistic cultural dimensions, respectively (Hofstede et al., 2010). It could be that these variations in police experiences may lead to different levels of trust in police and institutions across cultures. Trust facilitates motivation and cooperation

(Zanini & Migueles, 2018), therefore, a low level of trust in the police may have implications for unwillingness to cooperate as witnesses in investigative contexts (Papp et al., 2019; Tankebe et al., 2016). When cooperation is lacking in investigative interviews, information disclosure may be minimal (De La Fuente Vilar et al., 2020). Thus, differences in experience and levels of trust in the police across cultures may account for the observed differences in optimising reports provided to the police. Future research should investigate the extent to which trust in authorities plays a role in the provision of eyewitness memory reports across cultures.

We also found mock witnesses from the high power distance culture gave higher confidence ratings for their memory reports than mock witnesses from the low power distance culture. It is possible that even though mock witnesses from the high power distance cultural group underreported details, they were certain about the accuracy of the information they did report. In line with this speculation, we found that although mock witnesses from the high power distance culture reported fewer details than low power distance mock witnesses, the former did not differ from the latter in the accuracy of reported details for free recall. Nevertheless, during cued recall, mock witnesses from low power distance culture seemed to be more accurate. That difference in the cued recall may be because low power distance mock witnesses may have engaged more in memory regulation during cued recall where they had the option to withhold (refrain from answering; Koriat & Goldsmith, 1996) or provide answers to questions. Consistent with that speculation we found more questions were left unanswered by low power distance mock witnesses than high power distance mock witnesses.

While mock witnesses from the low power distance cultural group left more questions unanswered, this was not the case for mock witnesses from the high power distance cultural group. Compared to low power distance mock witnesses, high power distance mock

witnesses had the tendency to answer more questions at the expence of accuracy. Previous research shows individuals from collectivistic cultures tend to be high on social desirability than individuals from individualistic cultures (He & Van de Vijver, 2016; Kim & Kim, 2016). It could be that because individuals from collectivistic cultures tend to be high on social desirability, they were inclined to respond to questions even when unsure. The role of social desirability in memory tasks has also been shown in research on cultural differences in object recognition paradigm, which showed participants with a collectivistic cultural background (high power distance) were more likely to report seeing an obect, regardless of whether or not they had seen it (de Bruïne et al., 2018). Thus, in investigative contexts, it is possible individuals with collectivistic cultural background may feel obliged to respond to questions. In fact it has been noted that indigenous populations (e.g., Austarlian Aboriginals), who constitute a heterogeneous collectivistic group, might engage in gratuituous concurrence, agreeing and responding affirmatively to questions, to appear socially amenable, during investigative interviewing[1]. Hence, in witness interviews, it is important to let interviewees know that it is fine not to provide an answer if they do not know.

We found a negative association between confidence and accuracy for free recall for mock witnesses from Ghana. Thus, mock witnesses from the high power distance cultural background who were less confident in their free recall account were more more accurate in the reported details. However, this was not the case for mock witnesses from the Netherlands, as no relationship between confidence and accuracy for free recall was observed for mock witnesses from the Netherlands. Future research should explore cultural differences in the the relationship between confidence and witness memory reports further.

[1] We thank one of our anonymous reviewers for this perspective regarding interviewing with Indigenous Australians.

A key limitation associated with the current study is that the instruction to mock witnesses to provide a written recall in the respective scenarios simply may not have been sufficiently strong – or plausible – to induce the hypothesised effect. Although we argue the similar amount of details reported by collectivistic cultural mock witnesses to police and peer could be another manifestation of authority effect (i.e, lack of enhanced memory report to police), a stronger manipulation such as a live interviewer might have yielded an authority effect in the hypothesised direction (i.e., impeding memory reports of high power distance mock witnesses to police more than to a peer). Future research should use a live interviewer, playing the appropriate role, in the respective conditions. Having said that, our methodological approach is in line with previous research showing an authority effect even with subtle or implicit operationalisations of authority (Matsumoto & Hwang, 2019).

Conclusion

Our aim in this study was to examine whether reports from memory about crime events provided by witnesses from different cultural backgrounds would differ as a function of who they are reporting to. Our results suggest authority may play a role in cultural differences in the content of eyewitness reports. Specifically, the results show while reporting to an investigator may facilitate elaborate reporting for witnesses with low power distance cultural background, it may impede elaborate reporting for witnesses with a high power distance cultural background. Findings from this research provide some initial insight on how power dynamics may impact informational outcomes for investigative professionals working in cross-cultural contexts. Further research is needed to further explore these effects and identify how best to address perceived power differentials in cross-cultural investigative interviews.

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Disclosure and Ethical Standards Statement

Declaration of conflicts of interest

Nkansah Anakwah has declared no conflicts of interest

Robert Horselenberg has declared no conflicts of interest

Lorraine Hope has declared no conflicts of interest

Margaret Amankwah-Poku has declared no conflicts of interest

Peter van Koppen has declared no conflicts of interest

Ethical Approval

The procedures followed in this study was reviewed and approved by the Ethics Review Committee Inner City Faculties, Maastricht University (ERCIC_125_28_022019) and the Ethics Committee for the Humanities, University of Ghana (ECH 103/17-18). The procedure also conforms to the 1964 Helsinki declaration and its later amendments or comparable ethical standards.

Informed Consent

Informed consent was sort from all individuals that participated in the study. All participants completed an informed consent.

Data availability statement: The data supporting the findings of this study are openly available at https://osf.io/jf9mt/?view_only=7a86a73a9fd646d9a2d603aba5b5d28f

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Table 1

Mean (Standard Deviation) for correct details, accuracy rate, unanswered questions, and confidence ratings in the respective conditions by cultural group in free recall and cued recall

		Ghana		The Netherlands	
		Police	Peer	Police	Peer
Free Recall	Total details	25.25 (7.86)	26.83 (11.58)	43.95 (12.92)	36.27 (11.24)
	Correct details	24.79 (7.88)	25.94 (10.67)	43.73 (12.58)	35.41 (10.57)
	Accuracy rate	.98 (.03)	.98 (.03)	.98 (.02)	.98 (.02)
	Confidence	8.51 (1.12)	8.70 (1.21)	7.91 (.97)	8.37 (1.01)
Cued Recall	Total details	13.81 (4.27)	12.48 (4.74)	21.24 (7.07)	18.08 (4.77)
	Correct details	12.39 (4.12)	11.21 (4.46)	20.41 (6.67)	16.81 (4.46)
	Accuracy rate	.89 (.13)	.90 (.10)	.95 (.05)	.92 (.07)
	Confidence	8.06 (1.25)	8.12 (1.41)	7.18 (1.26)	7.33 (1.30)
	Unanswered questions	.39 (.79)	.45 (.71)	.77 (.61)	.70 (.82)