**Metacognitive monitoring and control of eyewitness memory reports in autism**

The present study examined the role of metacognitive monitoring and control processes in the informativeness and accuracy of autistic and TD witnesses’ memory reports, and the impact of task instructions and format (social or online) on this.

**Participants**

A total of 63 participants took part: 30 autistic adults (16 males, 14 females) and 33 TD participants (7 males; 26 females). Participants were recruited mainly from the South West of England and surrounding areas, including via previous research participation, autism-related and local community Facebook groups, social and support groups, as well as via local community recruitment (including posters, magazine articles, and social media posts, and University website campaigns).

All autistic participants had received a formal clinical diagnosis of Autism Spectrum Disorder according to DSM–IV (American Psychiatric Association, 2000) or DSM-5 criteria (American Psychiatric Association, 2013), and confirmed this with a copy of their clinical diagnostic report (NB. a breakdown of scores from the ADOS was only available for three participants). Six participants had received a clinical diagnosis but were unable to access their report and were therefore administered the Autism Diagnostic Observation Schedule, Second Edition (ADOS-2; Lord et al., 2012) to confirm their diagnoses. The total ADOS scores for the nine participants who had scores available were as follows: Communication *M* = 3.00, *SD* = 1.41, range = 1-6; Reciprocal Social Interaction *M* = 7.56, *SD* = 1.74, range = 6-11.

Autistic and TD participants were randomly assigned to complete the study in either a social delivery condition (where questions were delivered by the experimenter) or online. There were no effects of Group, Delivery, or Group × Delivery interactions for age (all *p*s > .392, ηp2s < .01), or on measures from the Wechsler Abbreviated Scale of Intelligence-Second Edition (WASI-II; Wechsler 2011): Verbal Comprehension Index (all *p*s > .353, ηp2s < .02), Perceptual Reasoning Index (all *p*s > .124, ηp2s < .04), and full-scale IQ (all *p*s > .136, ηp2s < .04). All non-autistic participants scored below the recommended minimum cut-off of 32 on the Autism Spectrum Quotient (AQ-50, Baron-Cohen et al., 2001) and, as expected, the autistic group scored significantly higher on the AQ than TD participants (*p* < .001, ηp2 = .71), but there was no main effect of Delivery (*p* = .666, ηp2 < .01), or Group × Delivery interaction (*p* = .337, ηp2 = .02) (see Table 1). Participants provided their written informed consent to take part and were fully debriefed. Ethical approval was obtained from the Psychology Research Ethics Committee at the University of Bath.

Table 1. Mean and range age, IQ, and AQ-50 scores for autistic and TD participants within each Delivery condition (standard deviations are in parentheses)

|  |  |  |  |
| --- | --- | --- | --- |
|  | TD |  | Autistic |
|  | Social (n = 15) | Online (n = 15) |  | Social (n = 18) | Online (n = 15) |
| Age (years) | 33.67 (10.93); range 18-51 | 35.93 (12.63); range 19-60 |  | 34.53 (14.55); range 18-59 | 31.33 (12.14); range 19-62 |
| Verbal Comprehension Index  | 110.33 (5.57); range 102-125 | 107.00 (11.44); range 79-123 |  | 106.40 (9.33); range 90-121 | 106.27 (12.44); range 85-128 |
| Perceptual Reasoning Index  | 112.11 (11.89); range 93-136 | 110.40 (11.35); range 92-135 |  | 108.73 (14.47); range 82-131 | 103.73 (13.24); range (82-128) |
| Full-scale IQ  | 112.67 (7.60); range 101-125 | 109.80 (10.67); range 88-132 |  | 108.53 (12.05); range 89-129 | 105.67 (12.86); range 86-132 |
| AQ-50 | 12.94 (6.89); range 1-24 | 10.20 (5.28); range 2-17 |  | 34.29 (10.12); range 14-46 | 35.33 (7.94); range 21-46 |
| Gender | 3 males, 15 females | 4 males, 11 females |  | 8 males, 7 females | 8 males, 7 females |

**Materials**

*Stimulus video.* Participants viewed a short video clip of a mock bank robbery lasting 36 seconds. The clip showed two males taking cash from a female bank teller before running from the bank and leaving in a getaway car driven by an accomplice (see also McCallum et al., 2016).

*Recall questions.* The recall questionnaire comprised 20 questions developed by McCallum et al. (2016) and required either color, numerical, or time-based answers (e.g., the colour of the suspects’ clothing, number of witnesses, age of the getaway car, duration of robbery, etc.; see Appendices 1-3). ﻿Following each question participants were asked to estimate their confidence that their answer was correct on a sliding scale with 10% increments (i.e., 0%-100%).

**Design and procedure**

The study used a 2 (Group: autistic, TD) × 2 (Delivery: social, online) × 3 (Phase: Phase 1 *free report,* Phase 2 *forced report,* Phase 3 *instructions to maximise accuracy*) mixed design, where Phase was within participants. ﻿Participants were tested individually and were informed that they were about to view a stimulus video (alone and in a separate room) and that they would be asked some questions about it afterwards. Half of the participants received the questions socially (by the experimenter); the other half completed the questions online in a separate room. In the social condition, a female experimenter provided instructions for the task and presented the questions. Following Chevallier et al. (2014), in the non-social condition both task instructions and the test questions were presented online, with the experimenter not present in the room. Approximate task duration did not differ between Delivery conditions, *F*(1,59) = 1.37, *p* = .247, ηp2 = .02, or Group, *F*(1,59) = 0.22, *p* = .643, ηp2 = .01, and there was no significant Delivery × Group interaction = *F*(1,59) = 1.21, *p* = .277, ηp2 = .02.

Participants completed the memory questionnaire on three consecutive occasions. We developed a three-phase paradigm, adapted from Brewer et al. (2018; see also McCallum et al., 2016). In Phase 1, participants freely generated the granularity of their responses to each question (i.e., fine-grained, FG, or coarse-grained, CG) without any instructions about grain size. In Phase 2, participants answered the same questions again but this time they were instructed to provide both a FG and a CG answer to each question (‘forced report’), in a counterbalanced order. For example, when asked how many witnesses were in the bank, participants were asked to provide both an exact number (e.g., 3) and a range estimate (e.g., between 2 and 4). This allowed an examination of whether witnesses’ reporting choices under the previous free report phase reflected the most accurate grain size available in their memory. Finally, in Phase 3, participants were asked to select one of their Phase 2 answers as their final answer. They were instructed to prioritise accuracy over level of detail by reporting CG options unless they were certain the FG detail was correct. In each phase, participants were not able to proceed to the next question without providing an answer to each question. They were instructed that if they were not sure or couldn’t remember any of the answers to give their best answer, and not to say/type ‘don’t know’ or ‘can’t remember’. Participants provided judgments of confidence about the accuracy of each of their responses (0% very very unsure to 100% very very sure).

**Coding**

Responses were coded by two independent raters for accuracy (correct or incorrect) and grain size (FG or CG). Following Weber and Brewer (2008), specific responses (e.g., sky blue; grey) were coded as FG while broader responses such as ‘dark’ were coded as CG. Answers including a phrase suggesting estimation, but ultimately including a FG response were coded as FG (e.g., “about/around 30 seconds” = 30 seconds, “greyish” = grey). Answers indirectly specifying a range were coded as CG (e.g., “20 seconds or under” = 0-20 seconds; “at least two but there could have been a third” = 2-3, i.e., interpreted as a range), and ranges of 0 were coded as missing data (e.g., “2-2”). Answers referring to the age of the car such as “very old” or “vintage old model” or those referring to an era (e.g., “1950s?”) were coded as CG. Colour answers including “multicolour” or “stripey” were coded as CG. Vague quantity-related answers (e.g., “quite/lots/several”) and “don’t know” responses were all coded as missing data. Where a participant gave two responses (e.g., “very dark/black”, “dark, almost black”, “brown or white”, or “late 1970s, maybe 1975?”), if they were two FG answers, the first answer was coded, and if they gave one FG and one CG response, the answer was coded as FG. In Phase 1, 25 items (1.98% of 1260 items) across seven participants were coded as missing data; in Phase 2, 18 items (0.71% of 2520 items) across six participants were coded as missing; in Phase 3 one item was coded as missing (0.08% of 1260 items). Strong agreement was reached between the two raters, with intraclass correlation coefficients of .99 for categorising details as FG, .96 for categorising CG details, and .98 for scoring accuracy (correct or incorrect).

**Appendix 1. Phase 1 (free report) instructions and questions**

**Phase 1 instructions – please read [listen] carefully**

 Please answer ALL of the following questions about the video you saw

After each answer there is a confidence scale going from 0% (very very unsure) to 100% (very very sure). Please rate how sure you are that the response you provided is correct for each answer.

There are 3 Phases, each with 20 questions.

If you are not sure or can’t remember, just give the best answer you can (please do not answer with ‘I don’t know’ or ‘can’t remember’).

Any questions?

**1. What was the colour of the beanie worn by the robber NEAR THE DOOR?**

How sure are you that your response is correct?

 0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

**2. What was the colour of the jacket worn by the robber NEAR THE DOOR?**

How sure are you that your response is correct?

 0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

**3. What was the colour of the top worn by the robber NEAR THE DOOR?**

How sure are you that your response is correct?

 0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

**4. What was the colour of the trousers worn by the robber NEAR THE DOOR?**

How sure are you that your response is correct?

 0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

**5. What was the main colour of the bag carried by the robber NEAR THE DOOR?**

How sure are you that your response is correct?

 0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

**6. What was the main colour of the hat worn by the robber AT THE COUNTER?**

How sure are you that your response is correct?

 0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

**7. What was the main colour of the jacket worn by the robber AT THE COUNTER?**

How sure are you that your response is correct?

 0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

**8. What was the eye colour of the robber AT THE COUNTER?**

How sure are you that your response is correct?

 0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

**9. What was the hair colour of the robber AT THE COUNTER?**

How sure are you that your response is correct?

 0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

**10. What was the colour of the t-shirt worn by the robber AT THE COUNTER?**

How sure are you that your response is correct?

 0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

**11. What was the main colour of the shirt worn by the robber AT THE COUNTER?**

How sure are you that your response is correct?

 0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

**12. What was the main colour of the bag carried by the robber AT THE COUNTER?**

How sure are you that your response is correct?

 0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

**13. How long did the robbery take to occur from the time you saw the robbers until they drove away?**

How sure are you that your response is correct?

 0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

**14. How many robbers were in the video?**

How sure are you that your response is correct?

 0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

**15. How many witnesses were in the bank?**

How sure are you that your response is correct?

 0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

**16. How many times did the robber AT THE COUNTER talk?**

How sure are you that your response is correct?

 0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

**17. How long did it take the robbers to run from the bank to the car?**

How sure are you that your response is correct?

 0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

**18. What colour was the car?**

How sure are you that your response is correct?

 0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

**19. How many doors did the car have?**

How sure are you that your response is correct?

 0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

**20. How old was the car?**

How sure are you that your response is correct?

 0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

**Appendix 2. Phase 2 (forced report) instructions and questions**

**Phase 2 instructions - please read [listen] carefully**

**For each question in this phase you will be asked to give two responses**

One answer will be a very specific detail – for example “sky blue” as a response to “what colour?”

The other answer will be a broader detail – for example “light” as a response to “what colour?”

**Make sure you read [listen to] each question carefully because the two types of responses won’t be in the same order for each question**

**Here are some example questions and answers:**

*What colour were the walls in the bank?*

Exact colour **white**

How sure are you that your response is correct?

0% 10% **20%** 30% 40% 50% 60% 70% 80% 90% 100%

General colour (light, medium, dark) **light**

How sure are you that your response is correct?

0% 10% 20% 30% 40% 50% 60% 70% **80%** 90% 100%

*How many people were in the bank during the robbery?*

Between (range) **4** and **8**

How sure are you that your response is correct?

0% 10% 20% 30% 40% **50%** 60% 70% 80% 90% 100%

Exact **6**

How sure are you that your response is correct?

0% **10%** 20% 30% 40% 50% 60% 70% 80% 90% 100%

**1. What was the colour of the beanie worn by the robber NEAR THE DOOR?**

General colour (light, medium, dark) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

How sure are you that your response is correct?

 0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

Exact colour \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

How sure are you that your response is correct?

 0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

**2. What was the colour of the jacket worn by the robber NEAR THE DOOR?**

Exact colour \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

How sure are you that your response is correct?

 0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

General colour (light, medium, dark) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

How sure are you that your response is correct?

 0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

**3. What was the colour of the top worn by the robber NEAR THE DOOR?**

Exact colour \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

How sure are you that your response is correct?

 0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

General colour (light, medium, dark) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

How sure are you that your response is correct?

 0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

**4. What was the colour of the trousers worn by the robber NEAR THE DOOR?**

General colour (light, medium, dark) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

How sure are you that your response is correct?

 0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

Exact colour \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

How sure are you that your response is correct?

 0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

**5. What was the main colour of the bag carried by the robber NEAR THE DOOR?**

General colour (light, medium, dark) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

How sure are you that your response is correct?

 0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

Exact colour \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

How sure are you that your response is correct?

 0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

**6. What was the main colour of the hat worn by the robber AT THE COUNTER?**

Exact colour \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

How sure are you that your response is correct?

 0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

General colour (light, medium, dark) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

How sure are you that your response is correct?

 0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

**7. What was the main colour of the jacket worn by the robber AT THE COUNTER?**

Exact colour \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

How sure are you that your response is correct?

 0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

General colour (light, medium, dark) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

How sure are you that your response is correct?

 0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

**8. What was the eye colour of the robber AT THE COUNTER?**

General colour (light, medium, dark) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

How sure are you that your response is correct?

 0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

Exact colour \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

How sure are you that your response is correct?

 0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

**9. What was the hair colour of the robber AT THE COUNTER?**

General colour (light, medium, dark) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

How sure are you that your response is correct?

 0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

Exact colour \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

How sure are you that your response is correct?

 0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

**10. What was the colour of the t-shirt worn by the robber AT THE COUNTER?**

Exact colour \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

How sure are you that your response is correct?

 0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

General colour (light, medium, dark) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

How sure are you that your response is correct?

 0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

**11. What was the main colour of the shirt worn by the robber AT THE COUNTER?**

Exact colour \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

How sure are you that your response is correct?

 0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

General colour (light, medium, dark) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

How sure are you that your response is correct?

 0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

**12. What was the main colour of the bag carried by the robber AT THE COUNTER?**

General colour (light, medium, dark) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

How sure are you that your response is correct?

 0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

Exact colour \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

How sure are you that your response is correct?

 0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

**13. How long did the robbery take to occur from the time you saw the robbers until they drove away?**

Between \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (range of seconds)

How sure are you that your response is correct?

 0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

Exact number of seconds \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

How sure are you that your response is correct?

 0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

**14. How many robbers were in the video?**

Exact number \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

How sure are you that your response is correct?

 0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

Between \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (range)

How sure are you that your response is correct?

 0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

**15. How many witnesses were in the bank?**

Exact number \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

How sure are you that your response is correct?

 0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

Between \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (range)

How sure are you that your response is correct?

 0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

**16. How many times did the robber AT THE COUNTER talk?**

Between \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (range)

How sure are you that your response is correct?

 0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

Exact number \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

How sure are you that your response is correct?

 0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

**17. How long did it take the robbers to run from the bank to the car?**

Between \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (range of seconds)

How sure are you that your response is correct?

 0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

Exact number of seconds \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

How sure are you that your response is correct?

 0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

**18. What colour was the car?**

Exact colour \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

How sure are you that your response is correct?

 0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

General colour (light, medium, dark) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

How sure are you that your response is correct?

 0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

**19. How many doors did the car have?**

Exact number \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

How sure are you that your response is correct?

 0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

Between \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (range)

How sure are you that your response is correct?

 0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

**20. How old was the car?**

Between \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (range of years)

How sure are you that your response is correct?

 0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

Exact number of years \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

How sure are you that your response is correct?

 0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

**Appendix 3. Phase 3 (instructions to maximise accuracy) instructions and example question**

**Phase 3 Instructions – Please read [listen] carefully**

You will be shown [reminded of] the two responses you gave for each question in Phase 2. Please pick ONLY ONE of these answers as your final answer.

We want you to try your best to maximise **ACCURACY** over**INFORMATIVENESS**. This means that you should report exact answers (e.g., that the tiles on the floor of the bathroom were **navy blue**) only if you are certain they are accurate; if you think that the general or broader answer (e.g., that the tiles on the floor of the bathroom were **dark-coloured**) is more accurate then please select that.

Try to pick the answer you feel is most likely to be accurate each time, as well as choosing [telling me] how sure you are that your responses are correct.

 If you are not sure or can’t remember just give the best answer you can (please do not type ‘don’t know’ or ‘can’t remember’).

**1. What was the colour of the beanie worn by the robber NEAR THE DOOR (select one as your final answer)?**

General colour\_\_\_\_\_\_\_\_\_\_\_ **light**\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (light, medium, dark)

Exact colour \_\_\_\_\_\_ **sky blue**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

How sure are you that your response is correct?

 0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%