

Supplemental Material for CPA 2024 Poster Presentation

The material below includes the following:

- Poster reference
- Background on the study
- Our measure of criminal behaviour (Current Criminal Behaviour Scale-2023)
- Our anti-criminal attitude message and control (Grand Canyon) message
- List of reference cited in the poster

Poster reference

Blakey, S., Cazeau, S., Evans, H., Gorman, S., Higginson, A., Hussain, T., Langlois, D., Kaye, M., May, K., Merpaw, O., Miller, J., Sebastian, L., Senkowski, N., Peters, J. R., Latour, G. E., Hatton, C. E., & Nunes, K. L. (2024, June 21-23). *Do criminal attitudes cause criminal behaviour? Different research designs can yield different results* [Poster presentation]. Canadian Psychological Association Convention, Ottawa, Ontario, Canada.

Background

We designed and conducted this study in the Forensic Psychology Honours Seminar (PSYC 3400) at Carleton University. The first 13 authors were students in the seminar during the 2023-2024 academic year (they contributed equally to the poster and are listed in alphabetical order). Joshua Peters and Genevieve Latour were the teaching assistants for the course, Cassidy Hatton is a graduate student in Kevin Nunes' lab, and Kevin Nunes was the course instructor. All authors contributed to the poster in some or all of the following ways: development of the study materials and design; preparation of the online survey; data collection; data management and analysis; preparation of the poster; presentation of the poster.

Current Criminal Behaviour Scale 2023 (CCBS-2023)

BACKGROUND (Not presented to participants)

We originally developed the CCBS in the Forensic Psychology Honours Seminar (PSYC 3400) in 2020 and have revised it each subsequent year. Below is the version we used in the current study (CCBS-2023). The questionnaire items are meant to measure current criminal behaviour in a way that would be sensitive to the potential effects of an experimental manipulation or intervention. That means the items need to be focused on current behaviour (rather than past behaviour, which cannot change) and they need to elicit something other than the lowest possible response from a sizeable minority of the sample (ideally getting as close to a normal distribution as possible). To that end, the items below present relatively minor crimes, include potentially mitigating circumstances (e.g., that might disinhibit or justify criminal behaviour for some participants), and the response scale is biased toward lower likelihood (*definitely not* vs. *probably*, rather than *definitely not* vs. *definitely*).

RESPONSE SCALE

Definitely not (0% chance)	Probably not (1-24% chance)	Maybe (25-49% chance)	Probably (50% chance or higher)
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INSTRUCTIONS

Please respond to each question below as if you were really in the described situation right now.

1. You're very hungry, you have no money, and you won't get any money until next week. Your friends and family can't help you. A vending machine isn't working properly, which makes it possible to get food from it without paying. Do you take food from the faulty vending machine without paying for it?
2. You only need to go a few stops on the bus and can't be late, but then you realize you forgot your wallet and have no way to pay. It's the kind of bus where passengers can board through the back doors and the driver won't notice if you don't pay. Do you ride the bus without paying?
3. Someone rudely pushed past you on the street almost knocking you over. The person looked back at you annoyed instead of apologetic. As the person walks away you see a \$10 bill fall out of their pocket—the person doesn't notice and keeps walking out of sight. Nobody else is around. Do you take and keep the person's \$10?
4. Someone was really obnoxious and rude to you and then they carelessly left their Bluetooth speaker behind on a bench outside and it's still sitting there after an hour. Nobody is around. Do you take and keep the speaker?
5. Someone is saying really rude and disrespectful things to you about you and people you care about. You have already asked them to stop several times, but they just keep saying worse

- things. This person is the same gender as you and around the same size and age as you. Do you threaten to hit the person?
6. You're with your close, trusted friends and they're all doing magic mushrooms (psilocybin). Your friends offer you some. Do you join your friends and do magic mushrooms too?
 7. Your friend shows you a nice pair of sunglasses that you've been wanting to get, tells you they were stolen from a store, and offers them to you. Do you take the stolen sunglasses?
 8. You see someone forget their textbook—one you need—as they get up and get into their brand new luxury car. They drive away. The book is still sitting there when you pass by an hour later. There is no one around. Do you take and keep the textbook?
 9. Walking toward where you left your brand new expensive bicycle locked up, you see someone vandalizing it. This person is the same gender as you and around the same size and age as you. The person has bent the wheels, pulled off your brake cables, poured coffee all over your bike seat, and is now letting the air out of your tires. You yell at the person to stop, but the person just looks at you and then lets the rest of the air out of your tires. Do you threaten to hit the person?
 10. It's the middle of the night and you come to an intersection and stop at a red light in a rural area with no houses around. There are no other cars or people anywhere in sight, and there is no red light camera. You've been waiting for ten minutes and the light is still red. Do you drive through the red light?
 11. You've just left a store where you bought some things when you suddenly realize that you have an inexpensive item in your bag that you forgot to pay for. Do you keep the item without paying for it?
 12. You're at the movies with your friends and the movie you all bought tickets to see just ended. Everyone had a good time and they decide to stay for the next movie, despite only paying to see one movie. Do you join your friends and watch another movie without buying another ticket?
 13. You drove your car to a party and now it's getting late and you need to get back home because you have work early the next morning. You know you're a bit high, but you feel like you can still drive safely. It's just a fifteen minute drive and there are very few people on the roads. Do you drive home?
 14. You're driving on the highway, running late for something important that you really shouldn't be late to—like an exam or job interview. The speed limit is 100km/hour, but some other cars are driving much faster than that. You need to drive at a speed of at least 130km/hour to be on time. Do you drive 30km/hour or more above the speed limit?

Anti-Criminal Attitudes Message

Please complete the sentences below by writing the worst thing that you think could happen if you were to commit a criminal act and the reason why you think it is the worst consequence.

I think the worst thing that could happen if I were to commit a criminal act is...

In my opinion, this is the worst thing that could happen because...

Please carefully read the message below. You will be asked to answer some questions about this message later on.

Criminal behaviour is defined as doing things that are against the law, such as theft, impaired driving, and assault. For most of us, most of the time, criminal behaviour is not necessary and is not justified.

Criminal behaviour is dishonest behaviour that breaks the rules of society and harms everyone—the victims and community, and even the person who does the crime. Consider some of the bad things that could happen if you were to commit a crime:

Social Consequences

- You, your friends, and your family would feel **regretful, embarrassed, and ashamed**
- You could be **rejected** by your friends and family
 - You would **lose support** from good people because most people don't want to have close relationships with someone they see as selfish and untrustworthy, exploitive, or dangerous

Retaliation

- You, your friends, and your family could become the target of **retaliation from your victim, their friends, and their family**
 - For example, the person you stole from or whose property you vandalized could tell your family and friends, publicly post humiliating or private information about you on social media, vandalize your property, or get violent

Legal Consequences

- You could get **arrested**, get a **criminal record**, and go to **prison**, which would mean discomfort, bad food, abuse, fear, decline in physical and mental health, and loss of privacy and independence

Financial Consequences

- A criminal record would **limit your opportunities** and make you **miss out**, like making it hard for you to
 - get or keep a good job,
 - have a nice and safe place to live,
 - have nice clothes,
 - afford the latest devices, like an iphone, ipad, or computer
 - have a nice and reliable car,
 - do fun things like going to restaurants and events,
 - and have a position of respect among your family, friends, and community
- A criminal record would make it **hard for you to travel** out of the country
- You would **lose income** from missing work to go to court and possibly prison, and have to **pay extra expenses** like a fine and a lawyer (hundreds of dollars per hour)

Personal Consequences

- You would have to **leave your life behind** (family, friends, pets, job, school) while you're locked up in prison
- You won't be able to take care of your family and friends
- While in prison, you would **miss out** on your youth and many events that are important to you, such as holiday, birthdays, funerals, weddings, births, meeting a partner, making friends

Consequences for Victims

- **Your victim(s)** would feel loss, anger, fear, and possibly hardship and injury
 - For example, stealing or damaging someone's property would require replacement or repairs that the victim may not be able to afford—and the victim may feel singled-out, scared, and generally upset
 - Or you could injure your victim in a way that forever limits how they live their life

Control (Grand Canyon) Message

Please complete the sentences below by writing the thing that you think is most interesting about the Grand Canyon and the reason why you think it is the most interesting thing.

I think the most interesting thing about the Grand Canyon is...

In my opinion, this is the most interesting thing because...

Please carefully read the message below. You will be asked to answer some questions about this message later on.

The Grand Canyon is a steep-sided gorge carved by the Colorado River. Located in the state of Arizona, the canyon is 277 miles (446 kilometers) long, up to 18 miles (29 kilometers) wide, and one mile (1.6 kilometers) deep. Many layers of rocks are exposed in the canyon, showing the region's geological history. The canyon is also known for its overwhelming size and colorful landscape.

The Grand Canyon is an important geological site, one of the seven wonders of the natural world, and one of the world's most popular natural tourist attractions with over **five million visitors** each year. Consider some of the things you could learn, see, and do if you were to visit the Grand Canyon:

History of the Grand Canyon

- The **Colorado River** began carving the Grand Canyon 5 to 6 million years ago
- In 1869, John Wesley Powell led the **first expedition** down the Grand Canyon
- President Roosevelt advocated for the **preservation** of the canyon when he was in office
- It was first protected as a reserve, then a national monument, and then, in 1919 the Grand Canyon became a **national park**

Grand Canyon rocks

- The Colorado River cuts through part of a metamorphic rock that is estimated to be about 1.75 billion years old.
- Nearly 40 different types of rocks can be seen in the canyon
- Some rock layers are estimated to be over 2 billion years old.
- The oldest type of rock in the canyon is granite
- The youngest type of rock in the canyon is limestone
- The vivid colors of the Grand Canyon are caused by trace amounts of different minerals
- Most rock layers contain iron, which adds a bit of green, yellow, and red to the canyon walls
- The oldest rocks are at the bottom of the canyon and the youngest rocks are at the top
- It is possible to tell how old a certain area is by the differently shaded sediment layers that formed over time

Grand Canyon climate

- While the Grand Canyon as a whole is considered to be a semi-arid desert, different parts of the canyon have **different climates**
- Nights are cool on the **Grand Canyon's South Rim**
- The **North Rim** can receive snow throughout most of the year
- The **Inner Canyon** (below the rim) is much warmer and can reach very high temperatures
- The canyon's bottom gets less than 20 cm of rainfall each year and the South Rim gets only 38 cm of precipitation each year

Things to do at the Grand Canyon

- The Grand Canyon is an impressive site with something for everyone to enjoy
 - You can take in the amazing views and sights
 - You can go hiking
 - You can go rafting and swimming
 - You can camp
- If you plan to visit, you would want to plan ahead to make sure you are well prepared and can make the most of your visit

References

Mills, J. F., Kroner, D. G., & Forth, A. E. (2002). Measures of Criminal Attitudes and Associates (MCAA): Development, factor structure, reliability, and validity. *Assessment*, *9*, 240-253.

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Shadish, W. R., Cook, T. D., & Campbell, D. T. (2002). *Experimental and quasi-experimental designs for generalized causal inference*. Belmont, CA: Wadsworth.