Evaluation of the Merseyside crime reporting 'portal'

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The Merseyside Police/Salesforce 'portal'

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Procedural justice in online interactions?

We know that procedural justice is central to face-to-face interaction

Also evidence that it is important in written and online communications

We wanted to explore whether procedural justice is important in the online reporting process generated by the portal – in particular, in terms of follow up contacts that people receive

Neutrality
decisions are unbiased and guided by transparent reasoning

Respect
all are treated with respect and dignity

PROCEDURAL JUSTICE

Voice
all are given a chance to tell their side of the story

Trustworthiness
decision makers convey trustworthy motives about those impacted by their decisions

Source: Yale Law School

Aims and objectives

A. To assess people's experience of using the portal to report a crime

B. To explore three additional questions:
1. Are experiences of using the system, and readiness to engage with it in the future, affected by people's prior levels of trust in the police?
2. Are experiences of using the system, and readiness to engage with it in the future, affected by people's motivations for reporting the crime: instrumental (claiming back on insurance) or normative (doing the right thing)
3. Does the quality of any follow up contact moderate or mediate the association between experiences of using the system and willingness to use it in the future?

Study design

2 x 2 x 2 x 2 factorial design, 639 participants

1. Trust in the police: randomization into high and low trust groups (goal was to make salient prior levels of trust in the police and move them around in one direction or another)

2. Motivations for reporting crime: randomization into instrumental or normative groups

3. Reporting the crime: randomization into criminal damage and ASB groups

4. Quality of follow up: randomization into groups experiencing procedurally fair and unfair follow up communication

Trust prime

Each group read three real press stories:

High trust	Low trust
Police officer dives into Mersey to rescue woman who jumped	Merseyside police apologise to woman deterred from sexual assault complaint
Merseyside cop nominated for national bravery award after disarming armed drunk	Merseyside PC accused of having sex with multiple women while on duty appears in court
Merseyside Police 'outstanding' at disrupting serious crime gangs	Merseyside Police officer 'bought and used Class A drugs'

The crimes reported

Criminal Damage

Imagine you live alone in a flat in a quiet part of Liverpool. One day, when you return home from work, you find two windows to the side of the main door smashed in. The door is still shut and locked, though, and there is no sign of anyone having entered the property. You assume that someone deliberately smashed the windows as some sort of joke or prank. You pay a service charge to the owner of the building, and you know that some of this money will now have to be used to pay for replacement windows.

 You want to report this to the police. You check the website of Merseyside police, the local force, which suggests that the easiest and quickest way to report the crime is online via the force website. The website directs you to an online reporting portal.

Anti-Social Behaviour

Imagine you live alone in a flat in a quiet part of Liverpool. To the front of the property is a small garden. Large quantities of litter are constantly being thrown into the garden. Much of this litter is associated with a local takeaway, and it is always particularly bad after Friday and Saturday nights. There is often so much that you assume the property is being deliberately targeted. While you try to pick up as much as you can yourself, you pay a service charge to the owner of the building, and you know that some of this money is used to pay when illegal litter needs to be disposed of. This means the service charge cannot be used for another purpose, such as maintaining the quality of the building and garden.

 You want to report this to the police. You check the website of Merseyside police, the local force, which suggests that the easiest and quickest way to report the crime is online via the force website. The website directs you to an online reporting portal.

User experience

Table 1: Using the portal

	Very…	Quite…	Not very…	Not at all
How easy was it to use the crime reporting portal?	59%	36%	3%	2%
How clear was the reporting process?	61%	34%	4%	1%

|	Yes	No
Do you feel that the portal captured enough information about the crime?	85%	15%

Table 2: Judgements about the portal

	Strongly disagree	Disagree	Neither agree or disagree	Agree	Strongly agree
I felt like my experience was being taken seriously	2%	10%	28 %	43%	17%
Reporting crime online is easier than using the phone or visiting a police station	2%	5%	13%	32%	48%
Some people will be discouraged from reporting to police if they have to use an online service	5%	21%	22%	39%	14%
I'm happy to use an online service if it's quicker and easier than other options	1%	3%	7%	37%	53%

User satisfaction

Overall, how satisfied were you with the portal?
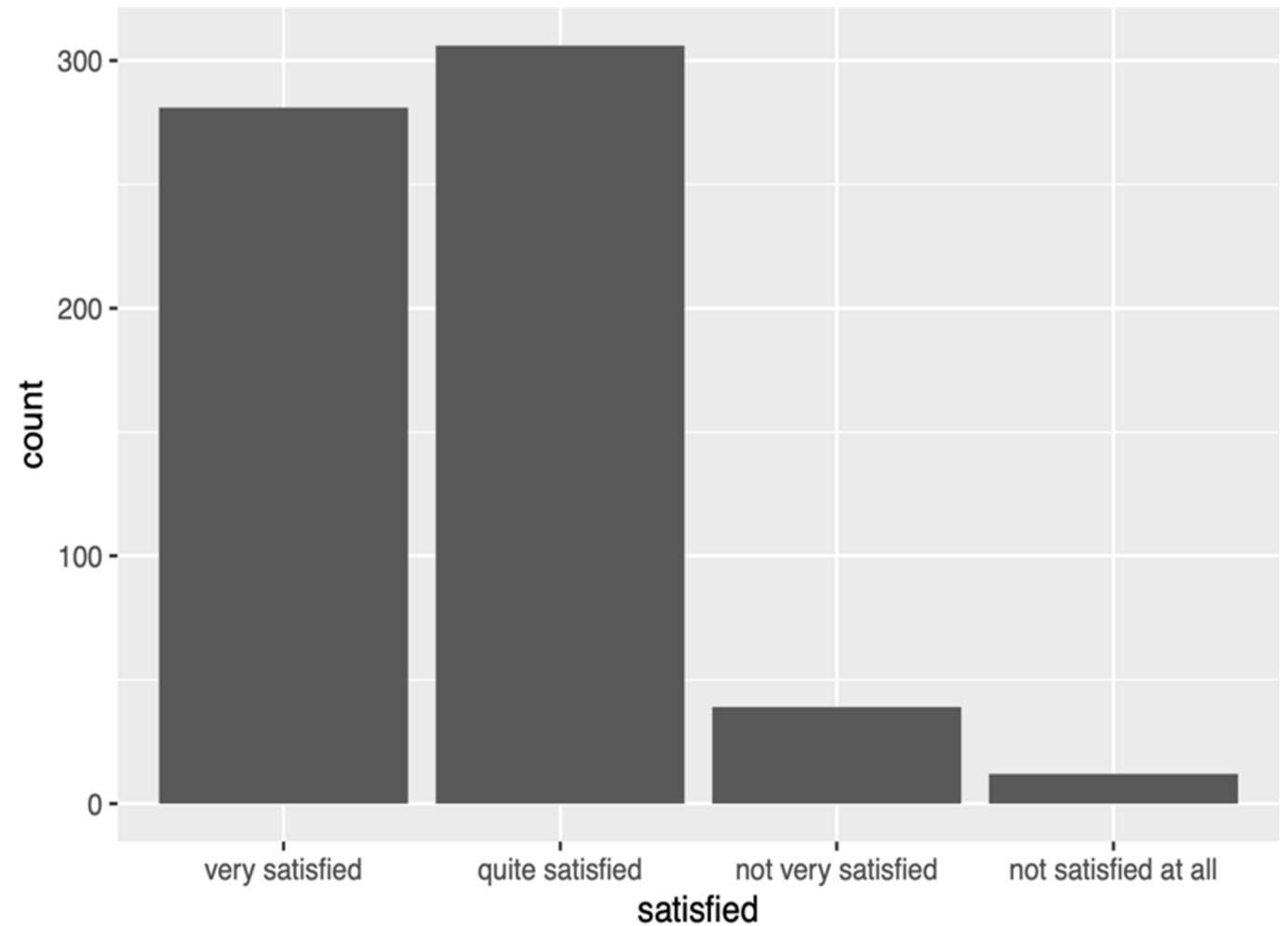
Trust affects experience
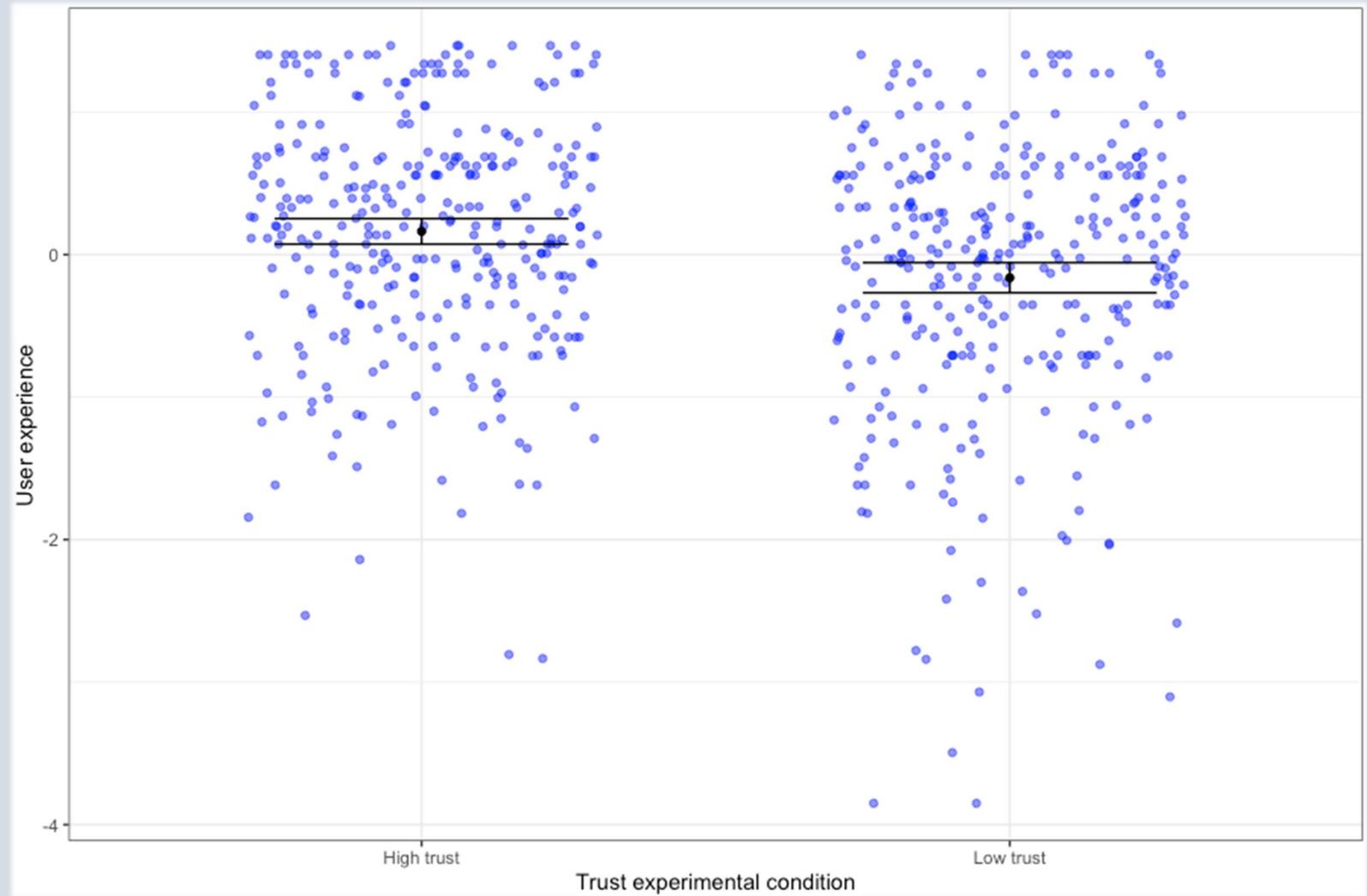
User experience derived from 5 items: "During the online reporting process, I felt like I was being treated with the respect I deserve", "During the online reporting process, I felt like my experience was being taken seriously", "Reporting crime online is easier than using the phone or visiting a police station", "Some people will be discouraged from reporting to police if they have to use an online service" (reverse coded), and "I'm happy to use an online service if its quicker and easier than other options".

Intentions for future use

	Very willing	Quite willing	Not very willing	Not willing at all
In general, would you be willing to use an online crime reporting portal like this in the future?	42%	40%	15%	3%
	I definitely would	I probably would	I probably would not	I definitely would not
In the future, if someone you know experienced a crime like the one you reported, would you recommend they use an online reporting portal if one is available?	35%	43%	17%	6%

Follow up contact

High procedural justice

We are sorry to hear that you have been a victim of crime. An investigator from Merseyside Police has looked carefully at your case and we are sorry to say that with the evidence and leads available it is unlikely that we will be able to identify those responsible. We have therefore closed this case.

We know how disappointing this news will be for you. It is disappointing for us too – our officers and staff joined the police to catch criminals and bring them to justice. It is frustrating to all of us when the circumstances mean we are unable to do that. Although the case is closed, every bit of information we get from the public helps us to do our jobs and your report may yet assist us in tackling crime. For example, the information may help us improve our intelligence on known offenders, spot links between crimes or identify places and times of day where crimes are more likely to occur so that we can do something about it.

If you have remembered anything else about the crime, or would like to understand more about how we made our decision, please contact us at the email address below, quoting CRIMEREF

If we receive any new information about your case, we will of course review it. We will contact you should we re-open our investigation – it is important you are kept up to date on any new developments.

If you need support or advice on coming to terms with your experience, the independent Victim can help. See https://www.victimsupport.org.uk/resources/merseyside/.

Yours sincerely,
 Pam Smith

Low procedural justice

An investigator from Merseyside Police has looked carefully at your case. The evidence and leads available means that it is unlikely that we will be able to identify those responsible. We have therefore closed this case.

If we receive any new information about your case, we will review it. We will contact you should we re-open our investigation.

If you need support or advice on coming to terms with your experience, the independent Victim can help. See https://www.victimsupport.org.uk/resources/merseyside/.


 Yours sincerely,
 Pam Smith

Procedural justice helps make up for low trust
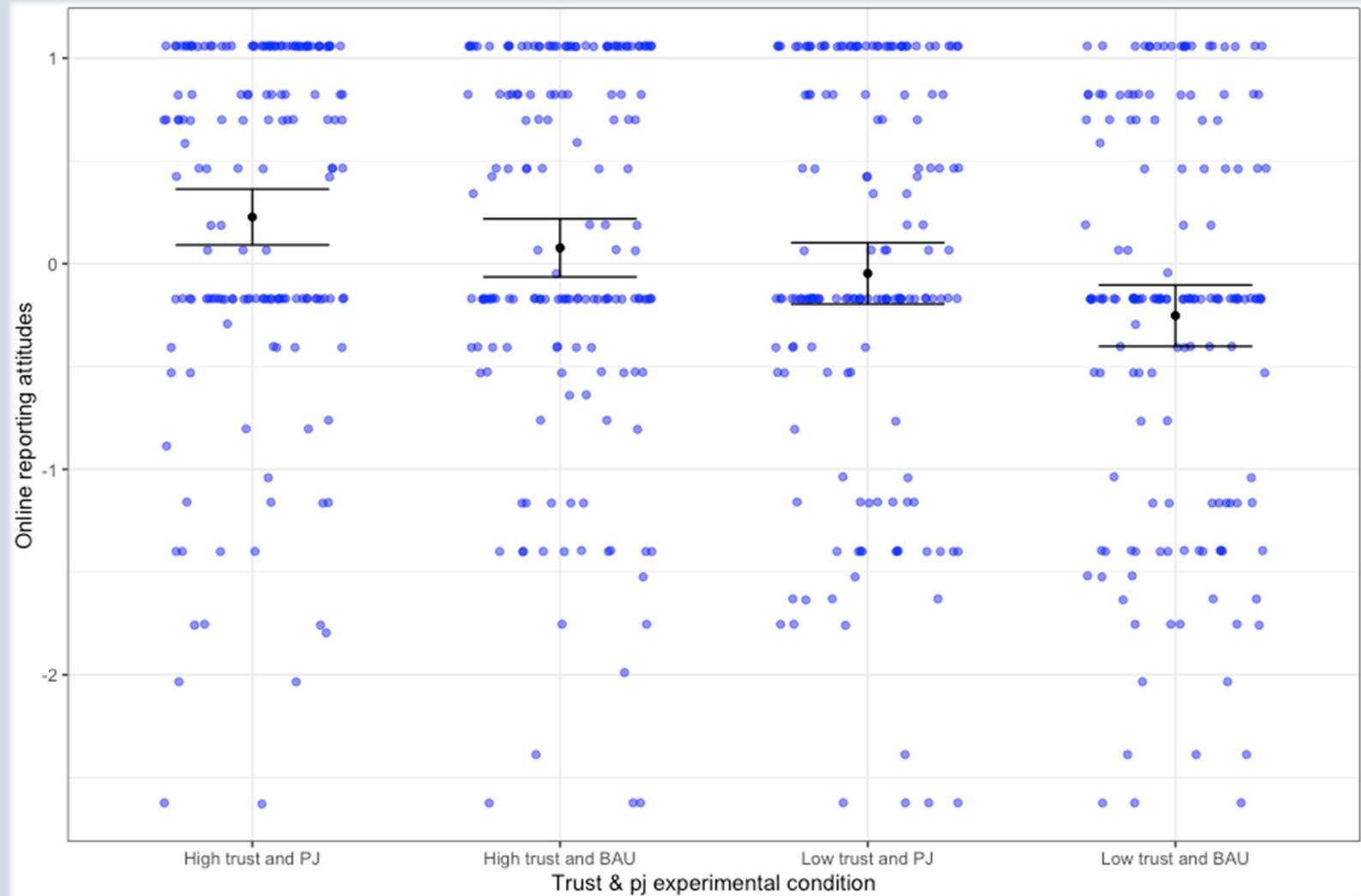
Online reporting attitudes derived from 4 items: "How satisfied are you with the reporting process as a whole?", "How acceptable is it for police to ask people to report crime this way", "In general, would you be willing to use an online crime reporting portal like this in the future?", and "In the future, if someone you know experienced a crime like the one you reported, would you recommend they use an online reporting portal if one is available?"

User experience predicts future intentions
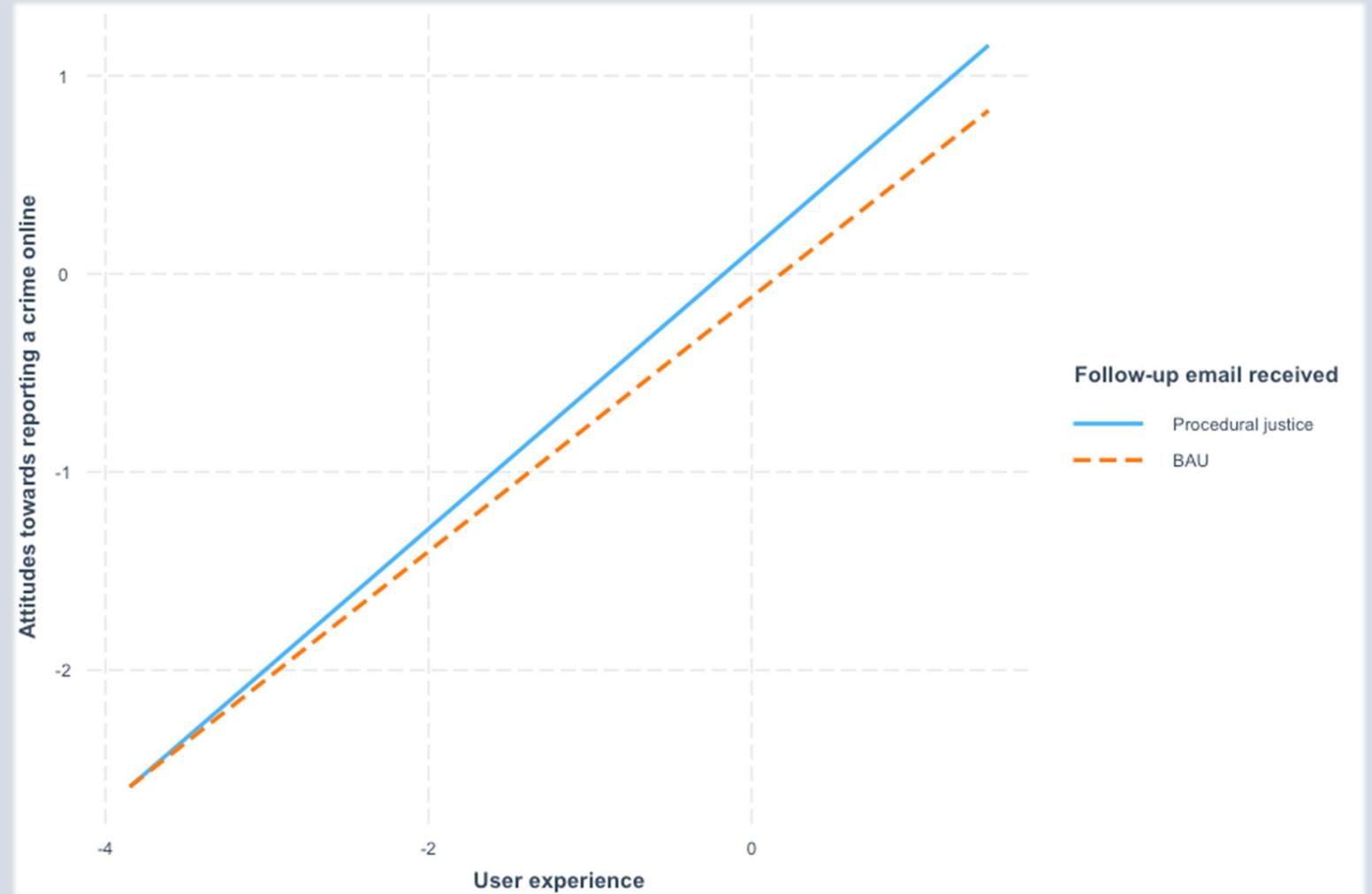
... and this effect is even stronger with a procedurally just follow up

Summary

Overall, very positive evaluations of reporting crime in this way (but recall the artificial nature of the study)

People experience this form of interaction with police through a lens of pre-established trust

Procedural justice is relevant in this process of communication – it 'makes up' for low trust, and it adds to the effect of an initial positive user experience

Thanks for listening!

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Transforming police-public interactions: contacting police online

Are these two trends compatible?

1 "Channel shift" strategies (e.g., online crime reporting) transforming police-citizen interactions

2 Efforts to improve service quality, enhance public trust, and ensure consistency in encounters

**Technology's impact on trust and procedural justice is underexplored.
Our studies examine online crime reporting experiences via chat: human operators vs. AI chatbots**

Underlying ideas

Interacting with machines

"Algorithmic aversion"

↓

People often prefer human decision-makers over automated algorithms in sensitive decisions.[1]

↓

People may see AI as more accurate[2] but less fair[3] compared to human decision-makers.

Chatbots and procedural justice

Importance of respect, neutrality, transparency and 'voice'[4]

↓

Relevance to digital environments[5]

↓

Algorithmic decision-makers may struggle to demonstrate procedural justice

[1]Dietvorst et al. 2015; Burton et al. 2018. [2] Lee, 2018; Kleinberg, et al. 2018; Longoni et al. 2019; McGuire, 2021. [4] [1]Tyler, 2003; 2006. [5] Hobson et al., 2021

Study 1

Study Focus

- Online crime reporting experiences: Experimental comparison of live chat with human police representatives to chatbot with AI operators.

Method

- Online study with 640 participants reading a realistic 'chat' exchange involving a crime report.

Manipulations

- operator identity (human or chatbot)

- crime seriousness (graffiti or burglary)

- outcome offered (active police attendance vs. passive recording of the crime)

Measures

- Independent variables

Operator identity
Crime type
Outcome offered

- Dependent variables

Judgements about process fairness
Judgements about the outcome
Perceptions of decision-making
Overall satisfaction with the process

Method

Experimental Procedure
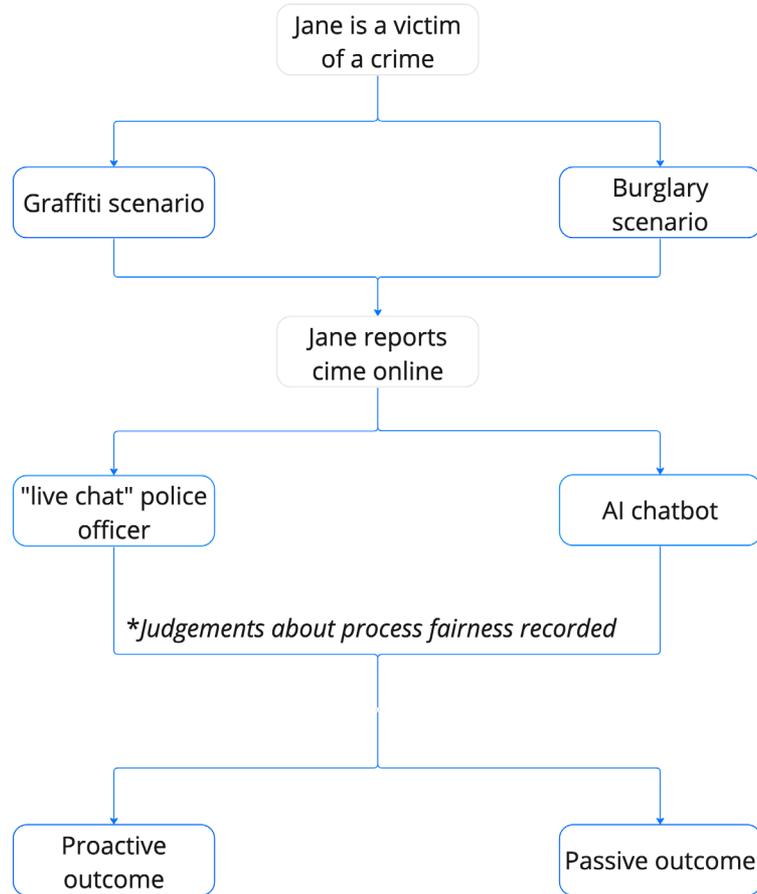
Jane is a victim of a crime

Graffiti scenario

Burglary scenario

Jane reports cime online

"live chat" police officer

AI chatbot

Judgements about process fairness recorded

Proactive outcome

Passive outcome

Judgements about the outcome, perceptions of decision-making, overall satisfaction with the process recorded

Preference for human operators

Were the hypotheses supported?

✓   The process and outcome tended to be judged fairer when there was a human compared with a chatbot operator. The 'preference' for the human operator did not vary significantly by crime type.

✓   Overall satisfaction with how the police dealt with the case tended to be higher when there was a human compared with a chatbot operator, irrespective of the outcome offered by the operator.

✓   Respondents perceived human operators as providing clearer explanations compared to chatbot operators.

✗   However, they were *not* more likely to think the AI operator made more neutral decisions.

Crime type mattered for outcome judgements, decision perceptions, and process satisfaction

Were the hypotheses supported?

✓ Whether the outcome was proactive or passive mattered less when the crime type was graffiti.

✓ Respondents were more likely to judge the clarity of explanation positively, and that the decision was made based on facts, in the graffiti conditions.

✓ Outcome (passive or proactive) was more important for overall satisfaction in the process in the burglary compared to the graffiti conditions.

Procedural justice valued in both human and chatbot interactions

Were the hypotheses supported?

✓ Whether Jane was treated with respect and dignity was valued in both human and chatbot conditions, with human behaviour perceived as more procedurally fair than identical machine behaviour.

We wanted to explore the impact of procedural justice in online crime reporting interactions further.

Study 2

Study Focus

- Online crime reporting experiences: Experimental comparison of live chat with human police representatives to chatbot with AI operators.

Method

- Online study with 648 participants reading a realistic 'chat' exchange involving a crime report.

Manipulations

- operator identity (human or chatbot)

- **Politeness and respect (procedurally just or unjust)**

- outcome offered (active police attendance vs. passive recording of the crime)

Measures

- Independent variables

Operator identity
Politeness and respect
Outcome offered

- Dependent variables

Judgements about process fairness
Judgements about the outcome
Perceptions of decision-making
Overall satisfaction with the process

Experimental manipulation: politeness and respect

Procedurally just interaction

Jane: Hi, my house was burgled while I was at work.

Police Representative/ BobbyBot: I'm really sorry to hear that, Jane. Could I please start by confirming your address?

Jane: It's 15c The High Street.

Police Representative/ BobbyBot: Thank you, Jane. **Can you please describe what happened in as much detail as you're comfortable with? Take your time.**

Procedurally unjust interaction

Jane: Hi, my house was burgled while I was at work.

Police Representative/ BobbyBot: Okay, Jane. Let's start with some basic details. What is your address?

Jane: It's 15c The High Street.

Police Representative/ BobbyBot: Alright. **Now can you explain what happened? Focus on the important parts.**

Findings

Sensitivity to politeness and respect

Perceptions of procedural justice
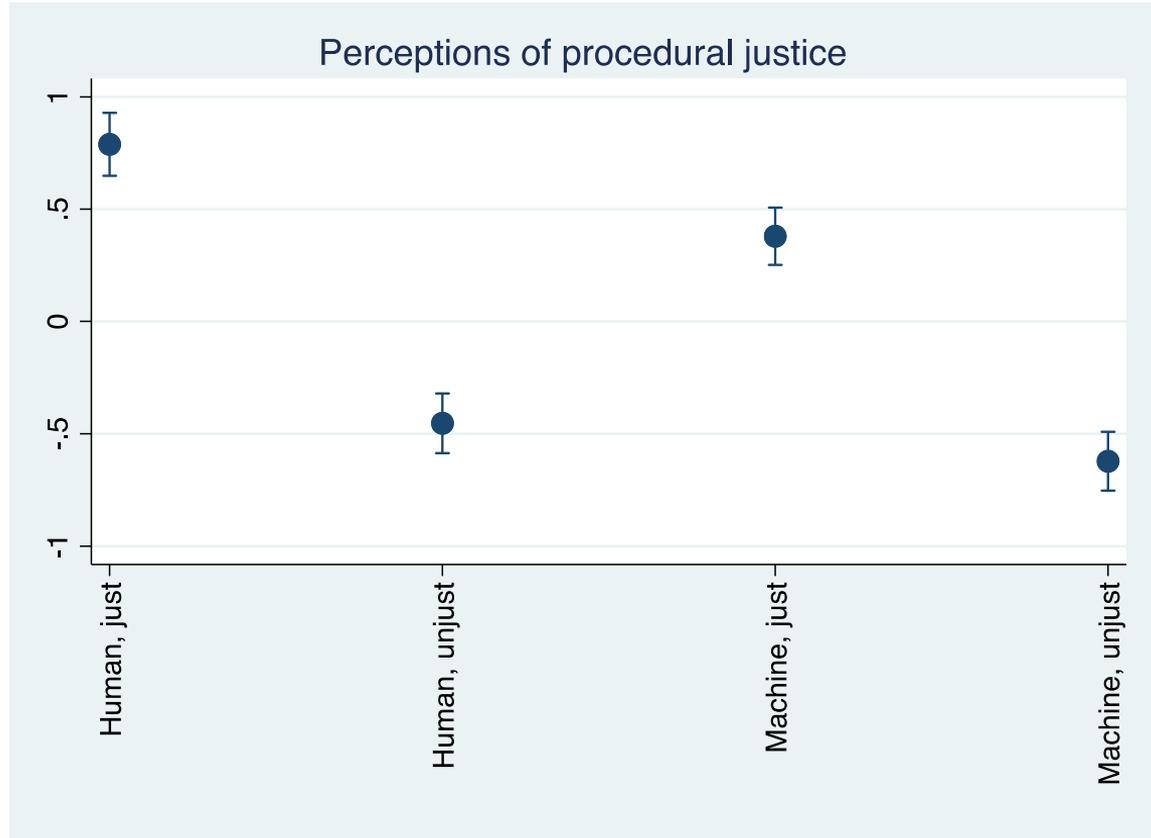
Findings

Impact of politeness and respect

Satisfaction with how police dealt with case
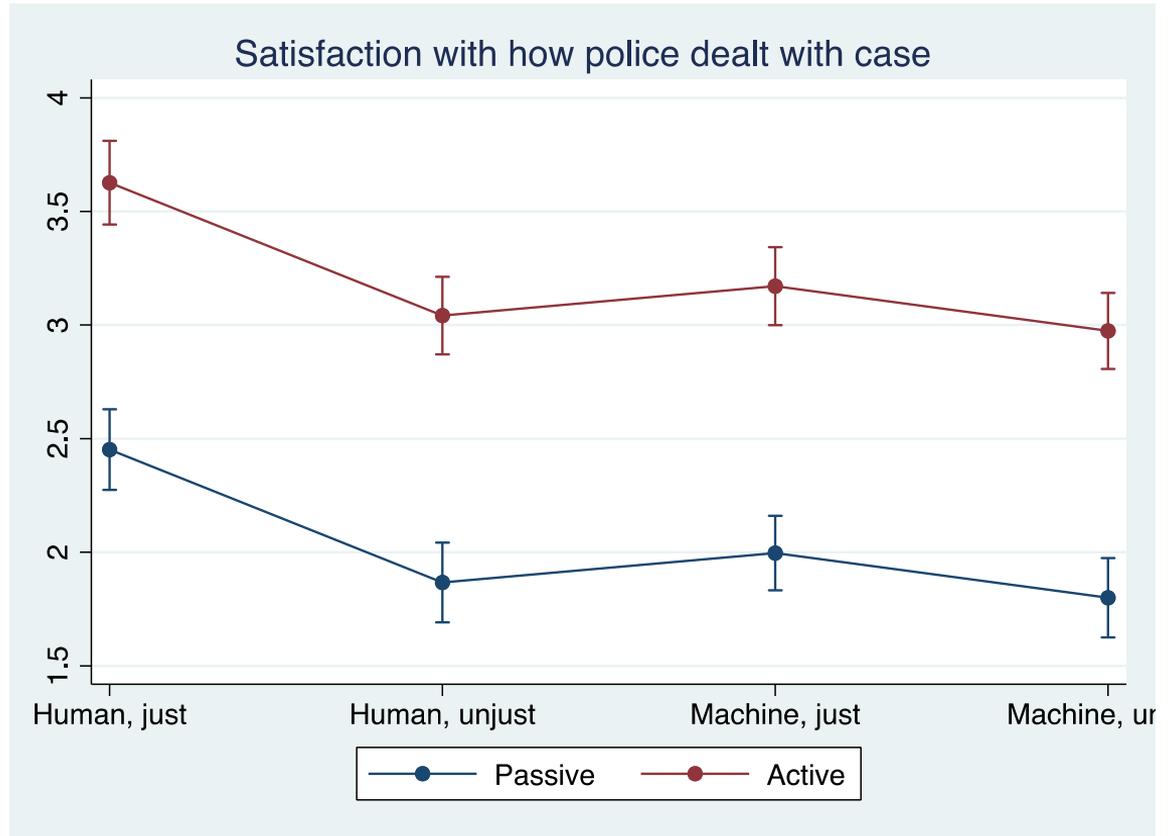
Take home messages for online crime reporting

Human preference rooted in trust and sensitivity

Procedural justice is valued and has an impact

Crime type matters

Balancing human and AI interactions

Human preference rooted in trust and sensitivity

- Online crime reporting systems are evolving, but people consistently favour human operators over chatbots.
- Human operator preference aligns with the concept of algorithmic aversion.
- The preference for human operators is rooted in trust and the effectiveness of human interactions in addressing sensitive matters, where politeness and respect are key components.

Procedural justice is valued and has an impact

- People prioritise procedural justice and clarity from human operators.
- People value and recognise procedural justice in interactions with machines.
- But just *human* operators have more of an impact.

Crime type matters

- Less serious crimes and proactive outcomes might result in a more positive online crime reporting experience.
- Online reporting systems are better suited for less serious crimes.
- Online crime reporting for less serious crimes aligns with current practice across all UK police forces we are aware of.
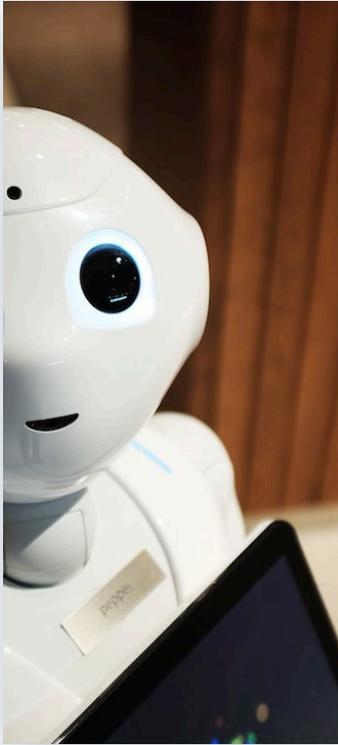
Balancing human and AI interactions in online crime reporting systems

- Emphasising politeness and respect can improve the effectiveness and perceived fairness of AI in crime reporting.
- Anthropomorphising technology can help create more human-like and respectful interactions.
- Greater automation may face resistance, especially for significant crimes.

Thank you

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Imagining the 'end user': Strategy, assumptions and the digital architecture of contact - Dr Helen Wells

Phase 2

- First fieldwork phase (4 sites)

- Ran from February 2022 to February 2023

- 32 interviews with strategic decision-makers in

  - national roles and

  - within the 3 partner forces

- 8x observations of service design process (one force)

- Covered various forms of technology used in contact into forces

- Insights from across all sites

What is the 'digital architecture of contact'?

- Technologically-mediated forms of contact between police and public, including:

  - Digital 101

  - Online reporting

  - Social media reporting

KEY MESSAGE

🪱 'Contact' is a crucial entry point to a justice journey, making it unique in an increasingly digitised world

KEY FINDING 1

- End-user engagement is needed to design the right service(s)

- Assumptions:

  - That "the public want it"…and it happens to meet police needs too

  - That it can be compared to other transactional encounters

  - That it will improve accessibility

KEY FINDING 2

- Self-service has been assumed to be a good thing

  - Services designed and determined by the police, to meet police needs

  - Perception that the public need to be trained to get it 'right' (they often get it 'wrong')

  - Public has to demonstrate they have a 'policeable moment' in order to access a service

  - Instrumental, rather than relational needs of 'customers'

KEY FINDING 3

- Contact should be viewed as a journey and not as a product

  - A contact project has a tendency to deliver a 'contact' product
  - Satisfaction with contact does not equal satisfaction with policing
  - Contact encounters shape the information that goes onwards into policing
  - To what extent is/should every contact be a new journey?

KEY FINDING 4

- Imagining the 'end user'
  - Tech company comparisons to 'other similar industries' may be unhelpful
  - Policing is unique in terms of context, risk, and legitimacy
  - The landscape is evolving and needs will change
  - The digital architecture of contact shapes what follows
  - Packages of technologies generate a momentum
  - Policing is the customer, but not the ultimate end-user

KEY MESSAGE

🪱 'Contact' is a crucial entry point to a justice journey, making it unique in an increasingly digitised world