INVESTIGATIVE INTERVIEWING

# Research &Practice

# Toward a new theoretical and methodological understanding of investigative interviews

Discriminability in deception is not d

Rapport in a Non-WEIRD Multicultural Society Intrinsic and extrinsic factors associated with confession

Offence type and open-ended question usage

Strategic interviewing in practice

Early Career Researcher Spotlight



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INVESTIGATIVE INTERVIEWING

# Research & Practice

The official journal of the International Investigative Interviewing Research Group



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# A Note From the Editor

Hello everyone! My name is Dr. Gemma Hamilton, and I am thrilled to have taken on the role as Editor of II-RP. For those who don't know me, I am a senior lecturer in criminology and justice studies, working on Wurundjeri land in Naarm (Melbourne), Australia. I am very passionate about improving and promoting ethical interviewing practices and developing an evidence-base that is accessible to broad audiences.

I firstly want to thank Dr. Kirk Luther for generously assisting with the journal handover. He significantly developed the journal (during a global pandemic!) and I am keen to continue his legacy and plans moving forward. In particular, we are currently modernising the article submission process to ensure clear communication and prompt reviews of manuscripts. We also want to maintain a strong focus on early career and practitioner engagement with the journal. I am excited to be working alongside deputy journal editors who will specialise in these areas.

Future plans include taking active steps to measure the impact of the journal, with hopes to gain a formal impact factor. This will ensure institutions recognise the important role II:RP plays in disseminating cutting-edge research to inform investigative interview practice. In the meantime, we know our journal has genuine impact with practitioners and academics at the frontline of investigative interviewing. Our website analytics indicate that hundreds of people view our journal from across the globe. Top jurisdictions include Great Britain, Canada, France, United States, and China. We hope to broaden this reach, particularly through multi-lingual translations of articles. Our articles are reviewed by experts across world, and we intend to uphold and promote the diversity of our editorial board.



Over the last few months, I have really enjoyed reading the high-quality submissions made to the journal. In this issue, we have seven important and engaging articles from scholars and practitioners across the world, including four empirical journal articles, one theoretical piece, one worldview commentary piece and one early career researcher article. This signals the creative flexibility and innovation of the journal.

I encourage prospective authors to consider submitting empirical research articles, practitioner case studies, early career research articles, and book reviews. Please get in touch if you have a book you would like reviewed. I am also happy to hear any suggestions you have for continued improvement of the journal. I look forward to working together to advance the field of investigative interviewing!

Best wishes,

Dr. Gemma Hamilton

Editor

journal.editor@iiirg.org

# Submission Guidelines

Given the multi-disciplinary nature of the International Investigative Interviewing Research Group (iIIRG), the worldwide circulation of this Journal and practitioner focus, a wide range of articles will be considered for inclusion.

These may include individual research papers in relation to the following specialist areas:

- Investigative interviewing of suspects, witnesses or victims
- Expert advice to interviewers
- · Interview training and policy
- Interview decision-making processes
- False confessions
- Detecting deception
- Forensic linguistics

The list of topic areas is purely indicative and should not be seen as exhaustive. The Editor will also accept other papers including case studies, reviews of previous bodies of literature, reviews of conference or other specialist events, opinion papers, topical commentaries and book reviews. However, all articles, regardless of topic, should have either historic or contemporary relevance to Investigative Interviewing. All submissions must adhere to internationally recognised ethical guidelines. If you are unsure whether your article is suitable, please contact the Editor directly at journal.editor@iiirg.org

As a general guide, articles should not exceed 5,000 words, although the Editor retains discretion to accept longer articles where it is considered appropriate. If you are an academic, it is expected that, prior to submission, your article will be formatted to the standards of the Publication Manual of the American Psychological Association (APA). If you are not an academic, there is no requirement for your work to conform to the format standards of the APA, however, you must reference your article (where appropriate) and the Editor will format it prior to publication (should it be required). Please do not use footnotes anywhere in your article.

The Editor retains the discretion to accept or decline any submitted article and to make minor amendments to all work submitted prior to publication. Any major changes will be made in consultation with the author/s.

Please make sure that all acronyms are clearly defined in brackets the first time they are used. All articles must be submitted online via https://iiirg.org/resources/ii-rp-journal-new/

#### The iIIRG and this journal seek to ensure an ethical and robust future for our judicial processes.

Hi everyone, I'm back! After saying farewell to you all with a heavy heart in the last issue of this journal, I was delighted to be asked to stay on as a deputy editor. It is an opportunity I grasp with both hands. I am often struck by how far the science of investigative interviewing has progressed in the three decades since I first set out on a career in criminal investigation as a young detective. The regular feedback I get from training investigators in the approaches developed through research is that they wish they had encountered them years ago. Unfortunately, we can do nothing about historically missed opportunities. However, we can all work together to bring together the worlds of research and investigation to identify and disseminate best practice. The iIIRG and this journal seek to ensure an ethical and robust future for our judicial processes. I am glad to be playing a continuing

role in this endeavour and look forward to working with you all to promote science-based investigative practice.



**Wayne Thomas** Deputy Journal Editor (Practitioner) journal.editor@iiirg.org

Hello everyone! Hello everyone! My name is Dr Cody Porter and I am a Senior Lecturer in Psychology at UWE Bristol. My research area primarily consists of investigative interviewing and lie-detection and iIIRG has provided a wonderful opportunity to connect with practitioners and academics from all over the world. It's fantastic to be part of an organisation that brings academics and practitioners together to co-create new lines of research which have real world impact.

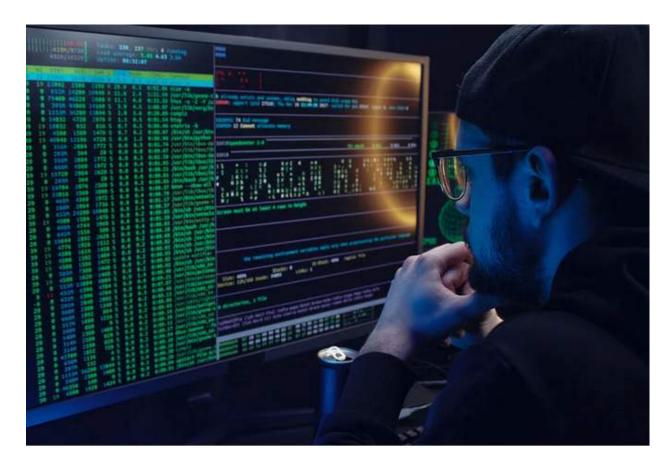
I'm excited and honoured to join the editorial team for this journal. I look forward to working with Dr Gemma Hamilton (Journal Editor), Mr. Wayne Thomas (Deputy Journal Editor – Practitioner), and our many expert reviewers. As part of this role, I will do my best to help promote the submission, review, and distribution of articles related to investigative interviewing from both practitioners and academics. I'm sure this new journey will bring interesting challenges and I look forward to getting to know you all.



**Dr. Cody Porter**Deputy Journal Editor (Early Career Researcher)
journal.editor@iiirg.org

# Discriminability in deception is not d

Reporting the Overlap Coefficient for practitioner-accessible audiences



Liam Paul Satchell\*1,

 $^{\rm 1}$  Department of Psychology, University of Winchester, UK

Correspondence to: Liam Satchell, Department of Psychology, University of Winchester, Hampshire, SO22 4NR, United Kingdom; E-mail: liam.satchell@winchester.ac.uk

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#### **ABSTRACT**

Applied psychology aims to develop evidence-based conversation between researchers and practitioners. We should aim for these conversations to be more transparent and accessible, including in terms of how we summarise and discuss statistical analysis. However, classically deployed mean-difference statistics can hide shared variance between conditions and do not truly reflect researchers' aims of 'differentiating' or 'discriminating' conditions. Importantly, mean differences do not provide practitioners with meaningful guidance on how to interpret one case at one point in time. Here, through focusing on deception detection research I provide an introduction to using the overlap coefficient (OVL) to enhance research-practice conversations. I highlight that even large mean differences (d=3.00) can have one in ten cases presenting ambiguously

(OVL= 0.13). I argue that reporting the overlap (and non-overlap) values and framing our results in terms of 'percentage of cases differentiated', allows us to better communicate our findings to practitioners. The use of the OVL statistic allows us to temper and expand the reporting of findings in applied psychology and will enhance practitioner-research communication.

**Keywords**; Deception detection; Applied research; overlap statistics; methodology; communication of results

#### Discriminability in deception is not *d*

Reporting the Overlap Coefficient for practitioner-accessible audiences

#### **INTRODUCTION**

The aim of applied psychological research is to develop an evidence base for informing practice. However, it is often the case that traditional academic conventions are not the most informative way to interpret and communicate findings for practice. For example, it is a common approach in applied research to develop experiments that attempt to elicit differences between two (or more) groups, and then inform practitioners about these differences to encourage practice change. But it remains a challenge to define at what point do we consider these researched differences meaningful and important for practice. This article highlights the limitations of using classical statistical inference criteria in a case of applied research. The aim is to inform researchers how we might be overand underestimating the utility of our results for practice when not looking at the distributions of our conditions. Further, I am to inform practitioners of questions they may want to ask of research data presented to them. I use the example of deception detection research as an active research area in which these concerns might be important, but the content discussed here applies widely to applied experimental research.

The typical approach used in developing deception detection techniques in academic research is to start by defining a potential cue to deception (such as non-verbal utterances or number of spatial details mentioned). Then the researchers randomly allocate a sample of participants to deliver an honest or a deceptive statement in an experimental manipulation. Thus, creating two (or more) conditions. Then statements provided by participants are assessed for differences in the interview aspect of interest (e.g., non-verbal utterances, etc) between the two conditions. Then statistical tests used demonstrate any differences in presence of this

aspect between lie- and truth-tellers. These differences are deemed 'noteworthy' using the preferred heuristic of the researchers – with tools which can observe differences in a variety of ways such as p, BF<sub>10</sub> or non-0 overlap of 95% CI of effect sizes. If the difference is considered noteworthy, the researchers then suggest that this is an interview aspect that is indicative of truth- or lie-telling.

Researchers are known for using differences in such interview aspects to suggest "discrimination" (Leins, Fisher, Vrij, Leal, & Mann, 2011, p264) between truths and lies. Some authors suggest that an interview aspect could be used as a "diagnostic cue to deception" (Liu et al., 2010, p35). The language of differentiating, discriminating, or diagnosing deception suggests that practitioners could use the interview aspect to detect a deceptive statement apart from a truthful statement in practice. However, this is not necessarily possible based on the inference from these classical mean-difference statistics alone. Whilst the average respondent for each group may feasibly differ in these features, there can be considerable overlapping variability between the distributions being compared. That is, whilst the average person may differ, in many cases the typical truth teller looks the same as the typical liar and vice versa. More attention is needed on observing the typical variability in each condition. The average comes with the spread caveat - the average point does not exist, but merely indicates the middle of comparable distributions. As researchers, in standard reporting, we include standard deviations as well as means to summarise distributions in our conditions, because of this recognition of population variability. However, we do not routinely use tests or descriptive language to show readers how much conditions vary and these variances overlap.

In practice, an interviewer making use of these researched cues to deception is (effectively) randomly sampling one person from somewhere in the true¹ distribution. If there is a notable overlap between lie- and truth-teller distributions it is not possible to easily attribute one interview to one veracity state. For example, Figure 1A compares a hypothetical truth and deceptive condition. Whilst the average person in these two groups does 'meaningfully' differ (in a similar size to many published studies), there are many people who present the same behaviour in the truth and deceptive condition (shaded region). If presented with a person doing '1' or '2' hypothetical behaviours in figure 1A, it would not be easy to tell if this was a sign of lying or truthtelling. Whilst this is somewhat known to researchers, this can have important implications for how we communicate these results to practitioners.

Beyond reporting differences between the average interviewees in the study conditions, it could be useful to understand the 'uniqueness' of each lie- or truth-telling distribution. For example, in Liu et al's (2010) study, the difference between lie- and truth-telling children's refusal to answer questions was able to 'differentiate' 78% of participants into the lying or truth-telling condition. On the other hand, the 'discriminability' between lies and truths suggested by Leins et al's (2011) use of coded consistency was not as effective. Coded consistency presented identically in 38% of participants, indicating that four in ten cases were not clearly truths or lies. Despite these both being statistically significant differences between groups, it can be seen that Liu et al.'s technique is a more useful tool for separating truths from lies. It is not the intention here to focus on these two papers or any particular papers as the use of 'discriminability' terminology when discussing mean differences in cues to deception data is widespread. However, these studies are good

illustrations of what is missed when not considering condition distribution overlaps.

Due to the challenges of using common statistics to demonstrate mean differences as evidence for discriminability between groups, I propose that applied researchers should use the established 'overlap coefficient', as a method to show shared variance between groups. By using this underreported statistic, deception detection studies (and applied experimental research at large) would gain i) better discussions of findings with practitioners, ii) a more thorough conversation about the size of effects found in deception detection research and, iii) better understanding around the informativeness of heterogeneity in data for applied uses.

Since this paper was first drafted, other authors have presented discussions about using statistics on the overlap between lie and truth telling distributions as an insight into deception cue usefulness (see the third commentary in Nahari et al., 2019). This current paper adopts a different approach to the previously presented U3 or 'DISCO' suggestions in Nahari et al. Here, the overlap coefficient is preferred as it is more readily accessible to practitioners as an intuitive statistic (percentage of overlapping cases) and the ability for the overlap coefficient to highlight heterogeneity of effects (see below). The aim of this paper is also to serve as a practical introductory text for making results more intuitive and accessible to end users (building on work presented elsewhere: Satchell et al., 2017).

#### The Overlap Coefficient (OVL)

One way to evaluate shared variance between distributions is the "Overlap coefficient" (OVL, see (Hanel et al., 2019; Inman & Bradley, 1989). This coefficient has an opposite function to Cohen's d (see Diner, 2010), in that it expresses

population that would be obtained in practice. I thank Dr Timothy Luke for his comment here.

<sup>&</sup>lt;sup>1</sup> It should be noted that it is a point of debate whether the studied distribution adequately represents the

the shared variance between the two sampled populations as opposed to differences between means. An OVL value of 1.00 denotes 100% overlap between two distributions (equal distribution properties). An overlap coefficient of 0.00 reflects 0% overlap between two distributions (all cases are separated into two distributions). Here, the OVL of 0.00 reflects total discriminability; we can classify a statement as deceptive or truthful based on a particular cue alone. Alternatively, OVL of 1.00 suggests that there is no distinction between the distributions at all. Very recently Hanel et al., (2019) have written an introduction to OVL in the context of defining using overlap to highlight similarities between groups in general theoretical research. This paper would make good reading for readers interested in the academic research uses of the OVL coefficient, whereas the current paper focuses more on implications for practice.

Making analyses more accessible. Researchers working on the topic of police interviewing have the aim of suggesting improvements to the procedures used in the criminal justice system based in good evidence-based practice. For this to happen, researchers must convince policy makers and stakeholders of the utility of our research. It would be of benefit for researchers to use language that is readily understandable by those not well versed in academic statistics. The overlap coefficient can be easily discussed in these contexts by referring to the percentage of the tested cases that were indistinguishable. When OVL=.20, this denotes that 20% of participants were not clearly defined as being truth- or lie-tellers using that selected interview aspect. In a hypothetical example, we could count the number of smiles displayed by truthful (M=20.00, SD=16.00) or deceptive (M=25.00,SD= 11.00) interviewees. It is possible that this hypothetical effect is significant (with even a modest sample size  $N_1$ = 60,  $N_2$ = 60; t(118)= 2.00, p=.048, d=.37) and researchers might advise practitioners that more smiles are a sign of deception. However, the calculated overlap for

these two groups is OVL= .78. This would suggest that 78% of cases were not readily distinguishable as truthful or deceptive when using number of smiles as something to focus on as a cue to deceit. Alternatively, this finding could be reported as 'eight out of ten cases in this interview aspect cannot differentiate honest from deceptive behaviour'. Despite the populations differing on average, the overlap shows that this cue is probably not usefully 'diagnostic'.

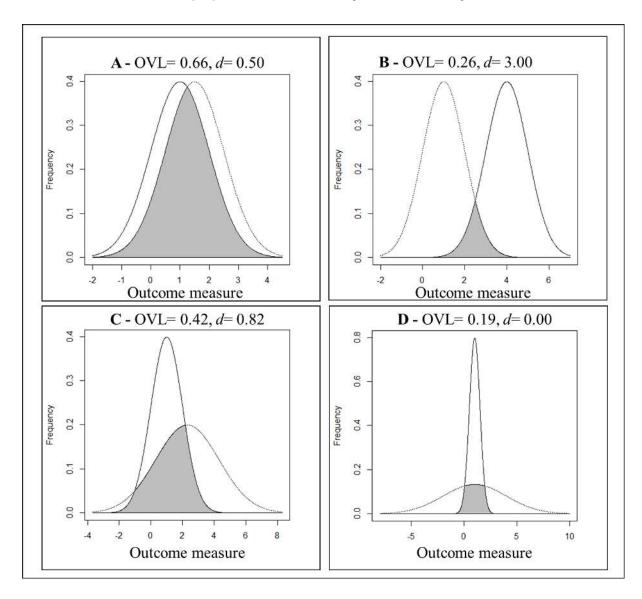
Researchers could also do more to consider the task of the practitioner who is only exposed to one event at one point in time. When investigating a single event, an interviewer does not have the context 60 honest and 60 deceptive interviewees to understand general differences in the performance between the groups on the specific instance being investigated. Instead, interviewers are exposed to a one random example of the distribution of interview aspects. Unless conducting an interview the 'average' person (who does not exist in real terms), mean differences between lie- and truth-tellers alone are not informative for guessing which category the current interviewee belongs to. When there is greater overlap in distributions of lie- and truth-telling it is difficult to use a particular interview aspect to make a veracity judgment. For example, the distributions in Figure 1A are not convincingly different despite easily being a statistically significant difference at N<sub>Truth</sub>= 35,  $N_{Lie}$ = 35, t(68)= 2.09, p= .040, d= .50. However, Figure 1B shows a highly significant difference, with a notably large Cohen's d of 3.00. This type of finding is rare and the size of effect in 1B is bigger than typically found in the psychological literature (see Richard, Bond, & Stokes-Zoota, 2003); however, even in this case of this large d, OVL= .26. This means that in this sampled population, 26% of the performance in that interview aspect is indistinguishable between groups. In the generated data in figure 1B, an interviewee performance of '3' does not clearly indicate truthful or deceptive behaviour. One in

ten events are not clearly attributable to deceptive or honest behaviour.

It could be of use to consider the opposite of the overlap coefficient, a non-Overlap coefficient (nOVL = 1-OVL). This nOVL statistic illustrates the percentage of non-shared cases. For example, for Figure 1B nOVL= 0.74. That is to say, 74% of cases are distinct when comparing truth tellers and liars on that hypothetical interview aspect. Further examination of the data is needed to define the critical levels where distinction occurs, but this nOVL value highlights the

'discriminability' that deception detection researchers wish to discuss.

Focusing our analysis on how different distributions are, highlights the limitations of our academic d heuristics for applied practice. It is the case that d (and p or  $BF_{10}$ ) can tell us something about population differences at large and these statistics are of theoretical interest. However, a practitioner may be best informed by saying how much overlap there is between truthful and deceptive behaviour when given a specific interview aspect.



**FIGURE 1.** Four examples (A, B, C and D) of different types of distribution that could be encountered in deception detection research. All data is generated to illustrate arguments made in text and is not real data. OVL defines the overlap coefficient and *d* defines Cohen's *d*. Note that figures are based on normal distribution projects and can overlap 0 despite all values being positive integers.

The Maximum Overlap of Interest (MOvI). What is the acceptable overlap between lie- and truthtelling distributions? Is an interview aspect with an OVL= .30 effective enough to be useful in applied practice? The question of 'smallest effects of interest' is complicated when applying psychology to criminal justice settings (for more on smallest effects of interest, see Lakens & Evers, 2014). The stakes are much higher in applied settings than in research of academic interest alone as lives can be radically changed based on criminal justice system decisions. If researchers assume our findings will meaningfully inform decision making, we could be concerned that our advice is based on an interview aspect that is statistically different between groups yet does not distinguish liars and truth tellers in 42% of cases (figure 1C). One could even consider 19% overlap between distributions cause for significant concern when working in high stakes settings (e.g., figure 1B).

Thus researchers should establish the acceptable maximum overlap for using their interview aspect in practice (and preferably in a preregistration). There is no reason for this current paper to set a standard recommendation for Maximum Overlap of Interest (MOvI), but individual researchers to provide justifications for their own MOvI. An author should establish that they consider, for example a MOvI of .20, to be the greatest amount of overlap they consider acceptable for an interview aspect to be used for guidance. In this case the MOvI established by the researcher still allows one in five ambiguous cases. It should be noted that, that many of our current approaches do not produce small OVL values. For example, in hypothetical data M<sub>Truth</sub>= 25.00,  $SD_{Truth} = 8.00$ ,  $M_{Lie} = 10.00$ ,  $SD_{Lie} = 4.00$ , there is an OVL= .20 and d= 2.50. Even when MOvI are set at a modest level, distribution differences need to be large.

**Discovering more than mean-differences in data.** Presented in figure 1D is data with d= 0.00. By most standard measures of reporting, this

would indicate 'no difference between groups.' This is not the case on observing the data. There is, in fact, a distinct difference in variance between groups and a difference that is meaningful for a practitioner. Let us assume that the fictional wide distribution illustrated figure 1D represents truth tellers (M<sub>Truth</sub>= 1.00, SD<sub>Truth</sub>= 5.00) and the hypothetical peaky distribution represents lie tellers (M<sub>Lie</sub>= 1.00, SD<sub>Lie</sub>= 1.00). There is more variability in the truth-tellers than the lie-tellers which may, perhaps, reflect the effect of strategic, controlled behaviour by lietellers as opposed to naturally varying behaviour of the truth tellers (in line with theory, see (Vrij, 2008). This would be highly relevant for researchers to observe and report on for practitioners, and unless observing the distributions, would be missed.

The distribution in figure 1D has a smaller mean difference than figure 1A (d= 0.50), however, the overlap coefficient draws attention to the fact that there is stronger discriminability of individual cases in figure 1D (OVL= .19) than 1A (OVL= .66). Whilst the overlap coefficient does not diminish the utility of reporting d, differences between distributions (i.e. potential occurrences of cases) are can be efficiently reported with nOVL.

A further advantage of comparing distributions of data rather than mean differences is the opportunity to draw on comparisons which do not make assumptions about the underlying distribution of data. Whilst many statistical tests assume that both distributions are normally distributed (and suitable for parametric analysis), developed distribution-free overlap coefficients (such as that provided by Pastore, 2018; Pastore & Calcagnì, 2019) allow comparison of the overlap between two non-normal distributions. This is an advance on what is offered by usual Cohen's *d* comparisons.

**Calculating the overlap coefficient in R.** Here, I briefly summary an experimental applied

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psychology relevant example of calculating the overlap coefficient in R. More detail on this code can be found in Pastore and Calcagnì, (2019). Table 1 describes an example of a hypothetical dataset; the number of self-corrections in statements by truth tellers (M= 2.32, SD= 1.80) and lie-tellers (M= 2.54, SD= 2.01) are recorded.

The R output will return the OVL value of approximately .82. In this hypothetical dataset, 93% of cases are indistinguishable. Further, nOVL can be calculated using the newly found OVL by computing: 1-.82. This returns a nOVL value of .18, with only 18% of cases being distinct.

#### TABLE 1 Code for deployment in R to calculate the Overlap coefficient

```
#Rows starting with # are instructions and R will not run these lines.
#Install and call the package called 'overlapping'
install.packages("overlapping")
library(overlapping)
#Build data frame for testing by assigning key variables for 'truth' and 'deception'
data <- list(truth = truthcondition variable,
             deception = deceptioncondition_variable)
#Run the analysis
summary <- overlap(data)</pre>
#Get report on overlap numbers
summary$OV
#Produce a figure of distribution overlap
final.plot(data)
#Worked Example
#Simulate hypothetical data based on two conditions of n= 35 for example
\#Here we simulate mean self-corrections for truth as 2.23, SD= 1.80
truthcondition_selfcorrections <- rnorm(35, 2.32, 1.80)</pre>
#Here we simulate mean self-corrections for deception as 2.54, SD= 2.01
deceptioncondition_selfcorrections <- rnorm(35, 2.54, 2.01)</pre>
#Using this simulated data, compute overlap by making a data frame...
data <- list(truth = truthcondition selfcorrections,</pre>
             deception = deceptioncondition_selfcorrections)
#And then running these functions
summary <- overlap(data)</pre>
summary$OV
#Returns the OVL value
```

**Reporting to overlap as part of standard results.** The hypothetical result from figure 1B could be written up as follows;

In the current study, there was a statistically significant difference between truth- ( $M_{Corrections}$ = 4.00, SD= 1.00) and lie-tellers ( $M_{Corrections}$ = 1.00, SD= 1.00) in the number of self-corrections (t(98)= 15.00, p< .001, d= 3.00, OVL= .13). Using the number of interviewee self-corrections successfully discriminated between 87% of cases, which is superior to our defined preregistered MOvI of .20. On further studying the data, we found that four or more self-corrections were clearly indicative of truth-telling and no self-corrections was clearly indicative of lie-telling (see figure 1B). One to three events of self-correction were more ambiguous and not diagnostic in our data.

Limitations of OVL. The OVL coefficient is not without limitations. It is the case that the OVL value is only useful for interpreting single cases when the data collection is large enough to represent the true population. Much like with tests for mean differences, the accuracy of estimating distributions improves with increased sample sizes. As with any approach in applied psychological research, we should be mindful of the many factors that contribute to the observed variance. Variability in study situation, (mock) investigators or interviewers, and backgrounds of participants all contribute to things that may lead our OVL estimate to not match the true distribution. Researchers should be cautious about interpreting interview aspects as differentiating truths and lies when only testing participants on one event. The OVL statistic, like all tests for group differences and similarity could only be used to predict performance on the selected standardised event. The larger the sampling of participants and events, the smaller the error in distribution estimates (i.e. smaller standard deviations) and the more effective the discriminability function will be.

The reporting and discussing of OVL statistics face the same concerns as general effect size reporting in deception detection work. Work by Luke (2019) has thoroughly presented concerns with the size of effects reported in deception detection research. That paper serves as a strong introduction to the issues of selective reporting, publication bias and inflated effect sizes found in the current deception detection literature. Similar issues could occur with future reporting of OVL. Authors are encouraged to pre-register their MOvI before running their studies for the upmost transparency. Further, OVL has value for peer reviewers and editors of research in this area could use their role to encourage the reporting of OVL for practitioner's access.

It is also worth noting that OVL is only an attempt to improve the communicability of applied research. It is to enhance the

transparency of common methods in the field. However, giving advice based on whether one cue, signal, or outcome differs between experimental groups, is very different to the noisy, multivariate world of practice. There are broader methodological questions about looking for single cue differentiations between groups. Practitioners experience the gestalt whole of a person. One may be looking to observe 'selfcorrections' as a cue to dishonesty, but it is an important question as to how relevant that cue is when considering the tone of speech, emotional context, interviewer-interviewee dynamics, other relevant evidential and linguistic cues and so on. Practice is more complex and contextual than univariate approaches and guidance to practitioners. Focusing on OVL helps give a good critical balance to the labelling of d as 'discriminability', but broad reform of the types of questions and methodologies used in interviewing research enhances our ability to answer applied issues. This is beyond the scope of this current paper to list potential methodological reforms to the investigative interviewing research, but important to recognise that using OVL is a way to address the analyses frequently deployed in this area of research.

#### **FUTURE DIRECTIONS**

Fundamentally, applied psychology endeavours to provide assistance for practitioners who are experiencing one interview on one case at one time. To reach this aim, our research must be much more prescriptive to the individual case and communicate this to practitioners. As well as OVL and nOVL statistics, researchers could consider the benefits of 'normative' approaches to behaviour. Like IQ and applied psychometric use, academics could consider norm-scoring individual cases against the possible distribution of performance. Z, or the more accessible T, scores would be able to index individual cases. For figure 1B, a case with T= 65 is easily defined as an 'above average' number of self-corrections

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and is more likely to belong to the truth-telling distribution (which we could define, in this case, as T> 55). The purpose here is to be able to identify the 'atypicality' of one interview, assuming there is a known population parameter from a variety of events and participants. This could lead to create a stronger evidence trail for those making use of research in practice.

I have focused my commentary on deception detection research as an example of providing practitioners with advice about differentiation between two groups. However, the discussion presented here applies equally to many areas of forensic and legal psychology, such as comparing techniques for interviewing witnesses or risk assessment methods. In fact, this is equally relevant for broader uses of applied psychology. It is important to have academic and theoretical criteria of meaningful differences, and these may well be different to those used in practice. However, applied psychology treads and important line and must recognise that liberal discrimination criteria can have serious consequences for those working in psycholegal practice.

#### **SUMMARY**

Overall, the OVL (and nOVL) statistics could improve the way in which we discuss techniques designed to detect truth- and lie-tellers. More than telling end-users that there is a 'statistically significant difference' in this interview aspect or d= .80 for the difference between lie- and truthtellers, practitioners may wish to know 'using this interview aspect, we can clearly separate lie- and truth-tellers in 31% of cases'. In this case, we see the academically interesting d=.80 has an OVL= .69 and may not be of much use in applied practice. We can also have a clearer conversation about the MOvI for applied researchers about their acceptable error rate for not being able to clearly distinguish between truthful and deceptive statements. The OVL statistic also highlights cases where heterogeneity in variances is informative. When two groups might perform differently in terms of their variance but not their means (Figure 1D) the percentage overlap highlights a difference where d does not. Focusing the distinctiveness of distributions as opposed to differences in means would benefit many streams of applied research.

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# Rapport in a Non-WEIRD Multicultural Society:

A Qualitative Analysis in Southeast Asia



Magdalene Ng¹, Kai Li Chung², Eugene Tee³, Fiona Gabbert⁴

 $1\, University of \, Reading \, Malaysia, \, 3\, HELP \, University$   $Malaysia, \, 4\, Goldsmiths \, University \, London$ 

Correspondence to: Magdalene Ng E-mail: m.ng1@westminster.ac.uk

#### **ABSTRACT**

"When you enter a cow's barn, moo, and when you enter a goat's shed, bleat."

#### Malay proverb

A body of research suggests that taking steps to build rapport facilitates cooperation in several contexts, including investigative interviewing. However, most of the available research exploring rapport and its antecedents in investigative contexts has relied on Western, Educated, Industrialised, Rich, and Democratic (WEIRD) samples. Cultural nuances, if not understood or acknowledged, can cause rapid deterioration of rapport in interpersonal interactions. Our research, conducted with N = 32, used a qualitative methodology to investigate the Malaysian culture as a framework for understanding rapport-building in a non-WEIRD sample. Analysis inferred that while Malaysians conceptualise rapport

very similarly to what we know in the Western literature, there are important differences in how they exhibit rapport and how rapport materialises. Four themes are discussed, reflecting idiosyncrasies in the themes. We find that rapport in Malaysia is culturally sensitive and culturally bound, in that the 'usual' pace of rapport exhibited in Western countries is not indigenised in Malaysia. We provide recommendations that can help personalise the way interactions such as investigative interviews and negotiations can be steered with suspects, victims, eyewitnesses, and hostage takers from this culture.

**Keywords**; rapport; investigative interviewing; non-WEIRD; forensic interviewing; qualitative.

#### Rapport in a Non-WEIRD Multicultural Society:

A Qualitative Analysis in Southeast Asia

#### **INTRODUCTION**

The concept of rapport has been widely studied, with definitions including a working or constructive relationship (Abbe & Brandon, 2014), including mutual trust, cooperation, and a shared understanding of priorities (Kelly et al., 2013), and with the goal of fostering self-disclosure of information (Abbe & Brandon, 2014) and cooperation. Components of rapport include personalising the communication, paying attention, and mutual connection (Abbe & Brandon, 2014). Perhaps one of the most discussed models of rapport in psychological research is Tickle-Degnen and Rosenthal (1990)'s tripartite conceptualisation of rapport, with three components including mutual attentiveness, positivity, and coordination. Rapport is often built through certain behaviours that serve to build a relationship (e.g., showing a personal interest, use of self-disclosure), present oneself as being open and approachable (e.g., smiling, conversational tone of voice), and demonstrating attention (e.g., active listening, head nodding) (Gabbert et al., 2021).

Rapport is a critical element across many contexts and impacts codes of practice – for example, in criminal justice (Collins et al., 2018; Holmberg & Madsen, 2014; Nash et al., 2016; Vallano et al., 2011), human-computer interaction (Kang & Gratch, 2012) and medical and health settings (Aruguete & Roberts, 2000). A body of findings in this context suggests that when rapport is implemented, this largely results in more success in information gathering between personnel.

The importance of rapport is especially relevant within applied contexts such as police interviewing (Abbe & Brandon, 2013; Alison et al., 2013; Joinson et al., 2010; Leahy-Harland & Bull, 2017; Oxburgh et al., 2014; Rotenberg et al., 2003; Vallano et al., 2015). This is supported by a wider body of research, finding that if interactions break down

due to a lack of rapport, then the amount of information disclosed by the interviewee is reduced in the investigative interviewing context (Abbe & Brandon, 2013; Brett, 2000; Walsh & Bull, 2012). For example, practitioners Holmberg and Madsen (2014) studied strategies to build rapport to gain information and cooperation from suspects, victims, and witnesses outside of the laboratory. Their study showed that a dominant-style of interviewing, characterised by aggressiveness and impatience – as opposed to a humanitarian rapport approach – led to a decreased amount of reported information.

The body of research available to date is valuable, however, it is limited in that most of what is currently known of rapport-building are based upon Western, educated, industrialised, rich, and democratic (WEIRD; Henrich et al., 2010) samples. This poses a problem because literature from cultural psychology suggests that culture is a key factor for how behaviours are expressed and appraised (Shweder, 1999; Beune et al., 2010; Chen et al., 2006; Fu & Yukl, 2000). Take for example rapport in a professional counselling setting; it can therefore be expected that an interviewer and interviewee with different cultural backgrounds may expect and enact different behaviours (Adair & Brett, 2005). For example, preferred amount of eye contact is culture-dependent; Japanese people in general tend to show less eye contact as a sign of respect compared to people from certain parts of Western Europe and North America (Akechi et al., 2013). The Japanese also practice silence as an indicator of respect and politeness, whereas this gesture is not observed in other cultures (Hei, 2009). Research suggests that cultural-sensitive differences in behavioural expectations and enactment can lead to breakdown in communication (Adair & Brett, 2005; Gelfand & Christakopoulou, 1999) and invariably cause setbacks in eliciting information (Brett, 2000). For

example, the interviewee may themselves be deterred from divulging information to an interviewer who they find 'hostile' and 'disrespectful' (Leung & Tong, 2004). There exists a small body of literature examining rapport beyond WEIRD populations in an investigative interviewing setting (see Alison et al., 2008, Beune et al., 2011; Goodman-Delahuntry & Howes, 2016; Hope et al., 2022; Matsumoto & Hwang, 2021). Duke et al. (2018) developed a scale to measure experiences of rapport, where culture similarity was identified as an important facet of rapport. Furthermore, a synthesis of concurrent works by Chien et al. (2016), Hall (1976), Hofstede (1991), Schwartz (1994) and Triandis (1996) highlights key cultural differences between the East and West in communication patterns, which can influence the dynamics of an interview process. In general, there is agreement that Western cultures are generally individualistic, egalitarian, dignity-based, and low-context. Eastern cultures, on the other hand, can be described as collectivistic, hierarchical, face-based and high-context (Hofstede, 1991; Schwartz, 1994; Triandis, 1996). High-context cultures prefer less direct communication to maintain group harmony and well-being in communities that are typically close-knit (e.g., Japan, China), whereas lowcontext cultures (e.g., North America, Germany) prefer direct, explicit verbal communication over subtle relational cues given that individuals are not expected to have knowledge of each other's background (Hall, 1976).

Taken together, the available work suggests that information-gathering in non-WEIRD populations would appear to require different tactics compared to WEIRD countries. This can be attributed to high-context and low-context cultures favouring very different communication styles (Adair & Brett, 2005), such as a preference for direct or indirect communication. As another example, Hall (1976) argued that there is a need to build relationships before ultimately getting to the heart of the matter in a high-context culture, such as engaging in ice breakers. Additionally, an interviewer may misconstrue an interviewee's lack of eye contact as rudeness or lack of interest (Iwata et al., 2011). Similarly, if silence is misread as

a lack in response, this can be detrimental to the interview outcome (Graham & Sano, 1984; Hei, 2009). The important point is that researchers and practitioners alike must be careful in assuming that the current conclusions on rapport from a Western perspective will apply to all cultures, especially when cultural differences and communication patterns are linked with trust (Thomson et al., 2018; Triandis, 1996) and information elicitation (Brett, 2000; Thomson et al., 2018).

#### PRESENT STUDY

The rationale for the current study is to take Malaysia as an example multicultural country that differs from Western countries in some important ways. Malaysia is a multicultural society with a predominantly Muslim population and comprises of three major ethnic and cultural groups, namely the Malays and Indigenous peoples (69.9%), Chinese (22.8%) and Indians (6.6%) (Department of Statistics Malaysia, 2022). The impacts of Western colonialism on Malaya are still evident such as in the languages spoken in the modern, multilingualism and its vernacular school systems (Embong, 2002; Guan, 2019). It is common for some Malaysians to not speak fluently in the national language (Malay) or any of the commonly spoken languages in Malaysia (i.e., Malay, English, Mandarin, Indian Tamil), with natives frequently inter-mixing languages (Ariffin & Husin, 2011). Of note, Malaysia has the lowest relational mobility in the world, tied with Japan (Thomson et al., 2018). Societal contexts that have low relational mobility have relationships that are less fluid and hard to form, but do not break down easily. Those within such societies also self-disclose less personal information compared to societies with higher relational mobility (Schug et al., 2010).

The present study examines what factors are important in a collectivistic, multicultural non-WEIRD society and what factors are important to rapport formation here. The aims of the current study are to examine (1) how people conceptualise rapport, in other words, how people perceive the building blocks of rapport to be in a multicultural society such as Malaysia, and (2) how these

perceptions differ from Western-centric cultures, and if so, how they manifest. Throughout, we discuss how the outcomes from the current study compare and contrast with the available body of research with Western samples.

#### **METHOD**

We acknowledge that cultural influences shape subjective experiences (Beune et al., 2010; Chen et al., 2006; Fu & Yukl, 2000). We therefore conducted five focus groups to qualitatively explore the subjective experiences of our participants in more depth. An advantage of focus group research is that it elicits rich interactions between participants and emulates natural conversations on their experiences. A focus group setting also allows for the development of ideas, enabling participants to share and compare their experiences on how the Malaysian culture has shaped their experiences with each other. This design enables us to examine the complex process of rapport development, its reception and exhibition as influenced by culture.

#### A. Participants

To maintain a homogeneous sample, we recruited Malaysian citizens between the ages of 18 and 30, either of Malay, Chinese, Indian, or mixed Malay/Chinese/Indian ethnicities, using convenience sampling via a university portal. Thirty-two University undergraduate students took part (23 female participants and 9 males). The average age was 21.90 years of age. Ethnicity-wise, 11 of our participants were Chinese, five were Malay, 10 were Indian, two were Eurasian and four were of other mixed Malaysian races. All spoke English as one of their primary languages. All participants received research credits in exchange for their participation.

#### B. Materials and Procedure

On arrival, participants were given an informed consent form. Five focus groups were conducted in total, with each group comprising six to seven participants, with a minimum of two Malays, two Chinese, two Indians. The interviews took an average of 1 hour 36 minutes to complete, and there were no time constraints imposed. All

sessions were held in a quiet board meeting room in university grounds. Dictaphones and microphones were set up to record the sessions. Prior to the session, participants were aware of the topic of the focus group discussion but were specifically asked not to research this topic. Each session began with a welcome and introduction of the topic. The sessions then progressed using a semi-structured interview style as a topic guide. We began by asking participants about the ways in which they relate to rapport (e.g., "Think about the last time you felt a rapport with someone", "What is rapport to you?", "What do you think rapport is? No right or wrong answers"). They were then encouraged to reflect on how they felt about rapport (e.g., "Maybe what can help you is to think about the last time you had rapport with someone. If you can think of a specific incident or even better a specific person, tell us about it."), of what rapport-building tactics or techniques they considered to work, to what extent these techniques were important to them, what results they anticipated as well as the conditions behind their perception. We deliberately did not provide a pre-existing definition or explanation of rapport prior to the focus group discussions to avoid response biases. At the end of the session, participants completed a demographic sheet. This study received ethics approval from the university where participants were sampled from. All considerations were taken in line with BPS recommendations, ESRC Research Ethics Framework, and the Data Protection Act.

#### **ANALYSIS**

We analysed the data following the qualitative content analysis framework, where themes were identified and are interpretations of the researchers (Mayring, 2020; Vaismoraidi et al., 2016). After the transcription process, we started the descriptive coding process. To achieve this, we read through each transcript independently and coded the manuscript. Two research assistants and the first author were involved in this process of coding at this stage. After coding one transcript, we examined the codes with the first and third authors present. We discussed code names, code definitions and coded text segments, continually

reviewing this study's aims and purpose. We classified these codes by looking for categories of information. In other words, we open-coded recurring regularities of information units or looked for any data segments that might be useful. This can include particular words that participants used to describe something they felt, or a longer description of the phenomenon. After discussing the codes for the first focus group, we repeated this process with the second focus group. As a first step towards achieving interrater reliability, the coding process was recursive and reiterative. This was also to avoid researcher bias and to establish quality in coding.

We then developed a preliminary coding framework. This coding framework contained a definition of each code, text segments where appropriate and was developed to ensure consistency among research team members. We later made this list of codes more exhaustive, as we carried on the analysis process through all transcripts – the coding framework continuously revised. Next, we combined these codes and recoded them into overarching themes where these can be defined as patterns of meaning. We then described and interpreted these themes.

#### Reliability Assessment

We conducted a reliability assessment to ensure comprehensibility of the coding system and the repeatability of study results (Mayring, 2020; Vaismoraidi et al., 2016). Inter-coder agreement here meant agreement on a code word assigned to a passage based on the definitions in our coding framework (Creswell, 2014). The decision of agreement or disagreement was either a dichotomous 'yes' or a 'no'. We then calculated the number of agreed codes over the total number of codes in the transcripts (i.e., the first and second coder agreed 55 times and disagreed 12 times). Our percentage agreement was 82.95%, indicating sufficient inter-coder reliability was achieved (Creswell, 2014; Miles & Huberman, 1994). In cases of disagreements, differences were reconciled through a discussion process among coders.

#### **FINDINGS**

Key themes were identified from the qualitative analysis. The themes provide insight into what drives the Malaysian culture in how they build rapport, relative to other cultures, including perspectives on collective cultural conditioning, values, and opinions regarding rapport. Four themes are identified, with two subthemes for Theme one: (i) Rapport is displayed via similar but unique variations of cues; (ii) Perception of similarities enhance rapport, with subthemes of Rapport is associated with connection and positive feelings and Trust is fundamental to building rapport; (iii) Intracultural and intercultural variations can be barriers to rapport; and (iv) Rapport is a process that is slow to build but hard to break. Each theme is outlined below, with quotes from participants provided for illustrative purposes.

### Theme one: Rapport is displayed via similar but unique variations of cues

As expounded in our introduction, existing literature shows that rapport building is typically displayed via certain behavioural cues such as maintaining eye contact and open body language (Aruguete & Roberts, 2000; Collins et al., 2002), smiling, active listening, and personalisation (Collins et al., 2002; Moraes, 2013). In our sample, we find that behavioural cues mentioned by participants when displaying rapport are mostly typical and consistent with the Western literature. However, there are unique variations in which we want to highlight, for example, how much sustained and direct eye contact Malaysians are comfortable with.

Consistent with past literature, Participant SL from FG3 mentioned head-nodding at or after the right word as a cue of active listening which led to perceived rapport. Participants also believe active listening to be a cue of verbal rapport, similar to past research (Aruguete & Roberts, 2000; Gabbert et al., 2021; Vallano & Schreiber-Compo, 2011). Active listening involves a process of clarification, paraphrasing, and not interrupting. All these demonstrate attentiveness. The effect of active listening is that participants feel understood and positively affirmed ("That just by what he was

trying to clarify, I could understand that he was trying to comprehend my situation, what I was going through," BL from FG5). Lastly, we also see accounts of non-verbal mimicry as a cue (or a combination of cues) that can build rapport. Participants SL (FG3) and BL (FG5) give accounts of this behavioural mimicry (Chartrand & Bargh, 1999), as exhibited by the mirroring of him sitting down.

"He was standing up earlier but he sat down to listen to what I had to say. That action even though it's very surface level but it has a lot of meaning towards it, someone that's in power coming down to your level." (SL, FG3)

"Synchronisation of non-verbal cues, body language. I remember this term the chameleon effect. It's as if the person just leans in at the same time or they have very similar movements." (BL, FG5)

However, while being comfortable exhibiting open body language (such as, facing forwards towards the other person), Participant GR from FG5 recognises that some of the cues used to build rapport amongst Malaysians may not work in building rapport with someone from another culture.

"There are people from other countries, other cultures, the way they build rapport may be different form how us Asian (sic) build rapport. Culture comes in many forms, the way you speak, body language, how you present yourself." (GR, FG5)

For example, our Malaysian participants describe a preference for indirect (i.e., looking at nose, mouth, attire), non-sustained and non-intense eye contact. Participant HT from FG3 mentions "scanning around" as a tactic to not be too direct and intimidating, but still giving the perception of looking at the other person. In other words, direct eye contact does not necessarily enhance rapport.

"If I speak to a person, my body would always be facing that person but my eyes

would look at you but not directly into your eyes." (CH, FG3)

"I need to look away from the eyes, so I can gather my thought process, so I can think, what else I wanna say. I kinda compromise, I will just look at you, just not in your eyes, it would be somewhere close to their eyes but never towards the eyes." (CH, FG3)

"Like nose or mouth or just other than the eyes part, yeah. People will perceive you're looking at them but it's not too intimidating that you make eye contact directly." (HT, FG3)
"Sustained eye contact is perceived as intimidating and then I would have to move away from their eyes." (OI, FG3)

"I would just swing my eyesight to avoid eye contact. From time to time, I will look at you and then turn to some point to stare at." (HT, FG3)

The use of distinct localised English and discourse particles is also a unique verbal cue in building rapport in this sample. A pervasive feature of Malaysian English that is widely used is discourse particles such as 'lah', 'ah', 'meh', 'lor', 'hor', 'wei', and, 'leh' (Tay et al., 2016). These informal utterances stemmed from being a multi-ethnic society and are often attached to sentences which serve a social function. These range from affirming a statement, expressing disappointment, stressing the obvious, and explaining uncertainty.

"You can start off with being really formal, I'm fine with that but once you start saying things like uhm, 'Don't know *leh*', 'Ya *meh*' things just suddenly get so much more comfortable." (MB, FG4)

Taken together, an application of building rapport in Malaysian culture in the context of investigative interviewing may be using open body language, head nodding, with indirect eye contact, and with the use of localised particles with interviewees, while paying attention to the intention behind these behaviours (Gabbert & Hope, 2022).

Theme two: Perception of similarities enhance rapport

A recurring theme throughout all focus groups is that perceived similarity breeds rapport. Participants shared their opinions of how similar they are with the person they are interacting with, with this perceived similarity appearing to spur rapport formation and increase personal engagement, not unlike what we already know from existing literature (Abbe & Brandon, 2014): "Rapport is when you have something in common with the other person." (XY, FG2)

"The gel is you having the same personality or hobbies or something that interested in." (PT, FG3)

"When I go to new places, everyone doesn't know each other and then suddenly you see there are little cliques formed and you realise it's because they all play badminton or they all like K-pop." (RD, FG5)

Similar senses of humour also enhance rapport: "When I met someone that we have the same kind of like humour, I feel comfortable with them in the instance." (DM, FG4)

"Some people you can just tell dark humour and they're fine with it." (HP, FG4)

"What kicked off our rapport basically was we had a pretty similar sense of humour." (AD, FG1)

"Humour is always a good thing to build rapport." (YL, FG2)

Similar negative experiences such as having relatable problems, issues and suffering together can also bolster rapport. As one participant from FG1 explains, "Besides having good experiences to build rapport, I think suffering together can also build rapport."

"What makes it easy for me to bond with someone as well is if we've gone through the same types of problems." (RD, FG5)

"We've gone through similar mental health problems. So I feel like with her, I probably have the strongest rapport." (YL, FG2) What highlights the uniqueness of Malaysian culture is that this perception of similarity extends to a distinctive Islamic doctrine. The perception of a haram-halal ratio, as reported by our participants, seems to be an important initial perception that makes or breaks rapport in the early stages. This informal metric refers to how seriously a Muslim lives out the Islamic lifestyle as prescribed in the Quran and other teachings (Jallad, 2008) from a scale of 1 to 100% (with 100 being Islamic but very progressive), which forbids certain behaviours ('haram') such as smoking, drinking alcohol, getting tattoos, and wearing certain attires. One participant describes that this initial perception of the haram-halal ratio while another explains that dissimilarities in this ratio prevents rapport from being built: "What makes me click with a person is the level of haramness." (SG, FG3)

"You can kind of assume who has that really high halal ratio." (TS, FG2)

"You don't wear that, you don't drink and you don't smoke. They are Malays that do that and are open about it but you're not fine with it so it can be hard to build rapport with." (YL, FG2)

This perception of similarity may also stem from interracial differences and ethnic polarisations within Malaysia, perhaps even ingrained by upbringing and embedded in societal norms such as the account that the following participant provides.

"Building rapport was based on your race. Back in high school, like, the Chinese will stick together, the Malays will stick together and the Indians will stick together." (WT, FG5)

### Subtheme one: Rapport is associated with connection and positive feelings

While we know from previous literature that rapport is associated with feeling connected (Abbe & Brandon, 2014), we find that in our focus groups positive discrete feeling states appear to be evident when participants experienced rapport.

For BL from FG5, rapport is an experience of connection, enthusiasm, mutual understanding, and resonance combined.

"It's something you feel that sense of connection with someone. When you talk to that person you get so enthusiastic you get so into it that time just flies even though that person may not know you a long a time but you feel that the person really understands you." (BL, FG5)

Participants report feeling "comfortable" (FL, FG3; LV, FG4), and this comfort as well as connection seems to be manifested by positive feelings such as feeling "happy" (OI, FG3), "excited" (HT, FG3) to "soothed" (SL, FG3), and even curiosity.

"It makes me curious about them, I wanna (sic) talk to them, I wanna (sic) get to know them." (LV, FG4)

Rapport is also described as a gut feeling about the other person, where YL (FG2) reports "I have this lump right here like in my chest, it's like a gut feeling, I just have that vibe something with people." When rapport is not felt, certain negative feelings are described by participants in this state. These include being "offended" (DM, FG4), "awkward" (DM, FG4), "uncomfortable" (HP, FG4), "feels hard, weighed down, heavy, and exhausting" (SR, FG1), "low" (DM, FG4), and "tiring" (BL, FG5). Participant LV from FG4 describes feeling "intimidated" and being "cautious" of what to say when feeling a lack of rapport with someone at the initial stages.

## Subtheme two: Trust is fundamental to building rapport

A favourable first impression is nurtured and strengthened by a positive quality of interaction brought about by trust. Participants report a need for "feeling safe" before engaging in self-disclosure, where trust denotes a decreased uncertainty and perceived risk. This appears to be linked with the "atmosphere" of this interaction. "Without trust, it's kind of hard for you to open up to a person and build that connection." (YL, FG2)

"I think that when you start sharing about your personal things with your friend and that's when you're telling that friend that, 'I've trusted you enough'. Like this relationship or this friendship that has now moved on to another stage where I can trust you, where I can start sharing my personal stuff, my personal goals, my personal worries to you." (PT, FG3)

"Trust has a part of building rapport. Cause I mean when you have a sense of trust with someone you're able to kind break the barrier of formality and be more casual with the person you're building rapport with." (BK, FG5)

Similar to recent reports (Hillner, 2022), we find that rapport and trust are related but have distinct, independent qualities. Our study gives an insight into how rapport and trust develop and interplays under relational circumstances (Hillner, 2022). Self-disclosure is also reported by participants to aid the rapport process, similar to past research (Duke et al., 2018a; Vallano & Schreiber Compo, 2011). In this study, participants report selfdisclosure to take a progressive nature ("from shallow to deep", ZE from FG2), where its quality and content increases over time. Some participants feel it could be intimidating if selfdisclosure goes straight into the deep end. Usually beginning with small talk, it is described to be the point of getting a feel of what this person is thinking or feeling, not just their superficial likes and dislikes.

"After you start talking about little things, like small talks and then you'll start the personal." (XY, FG2)

"Rapport is not straight into deep stuff, it's a progress of sharing different levels of information of both of you." (HT, FG3)

Self-disclosure has another side to its coin, where it can break rapport. The inability to self-disclose or express opinions on sensitive issues within families in Southeast Asian culture may prevent development of rapport, highlighting differences in strictness of cultural boundaries and reservations.

"To some extent you can't really build your rapport with your own family members. (With) Asian parents, you can't talk (about) certain topic(s). You can't really open up to them, let's say the topic of LGBT (lesbian, gay, bisexual, and transgender)." (OG, FG5)

### Theme three: Interracial and intercultural variations can be barriers to rapport

A recurring theme is that interracial differences can present as a barrier to rapport building. As introduced at the beginning of this paper, an interesting function of being a multi-ethnic society is hosting rich and diverse cultural backgrounds. This is a double-edged sword, where the amalgamation of several cultures and yet maintaining them individually naturally creates boundaries to begin with. Participants express that rapport within and between ethnic groups in Malaysia is complex, given the socio-political undercurrent. Participants inform how Malaysian politicians highlight differences in race in order to garner support from one's in-group, but a tradeoff from this is that it decreases interracial rapport within the three main ethnic groups. On one hand there is pressure to be united as a nation with three different main races (Malay, Chinese, Indian), but there exists clear interracial divide.

"They play two card (sic), the race card and the Malaysian card. They will play the race card more often where let's say, this party is predominantly one race, for example, Malay, to gain the votes like the Malay people. They will play the Malaysian card when they feel like, 'Oh our speech is getting a bit too racist." (CH, FG3)

Underlying issues such as interracial conflicts would also seem to play a role in preventing interracial rapport in Malaysia. Participants report how the nature of within-culture rapport mechanises here.

"It's almost harder for you to build rapport with other races from Malaysia compared to Westerners." (SL, FG3) "Because of history like the past in Malaysia, the different ethnicities, the differences between ethnicities, sometimes there are issues of trust not just between the ethnicities, it's also within the ethnicities, because every ethnicity has also got their own subcultures." (ZE, FG2)

"Say, when you're looking for a job. I saw a lot of Malay complaining in JobStreet saying that a lot of jobs are for Chinese or only want a Chinese speaking person, or for rental there (sic) areas where this is a- areas looking for Malay, but this one is looking for Indian, and this one is looking for Chinese. They will say no to you if you're a different race." (OI, FG3)

Participant CH from FG3, who grew up in East Malaysia, provides an account of racial biasness in Eastern Malaysia.

"On one hand, it is more integrated in East Malaysia, but still – inhabitants are prejudiced against certain races like Indians." (CH, FG3)

Participant TS in FG2 give details of how translanguage ability (i.e., bilingualism and multilingualism) can help form rapport within ethnicities in Malaysia. Equally, the lack of this ability can instead hinder rapport.

"You can mix a lot of languages 'cause we are either bilingual or multilingual. I can speak Malay, English and sometimes Mandarin." (TS, FG2).

They offer an example of a dirty joke, *kucing* basah, in which the literal translation from Bahasa Malaysia to English is 'wet cat'—a sexual innuendo for wet pussy. This is a slang phrase whereby only members of particular groups are familiar with. "When you say *kucing* basah, a Chinese-educated not really good in Bahasa Malaysia - they probably won't be able to understand what *kucing* basah is whereas of course all of us here understand. We understand because we are English-educated and proficient in English." (MD, FG1)

From the accounts above, it appears that interactions between individuals from different racial and ethnic groups within a culture can either

help or hinder rapport formation, depending on the level rapport is being built. Further to this, intercultural variations can be barriers to rapport. Participants share their experiences and thoughts on rapport at the intercultural level, acknowledging that differences in cultural wavelengths (Western versus Southeast Asian) may affect the way they believe they need to build intercultural rapport – sometimes even engaging in a form of pseudorapport.

"In the Western culture they are brought up to be more expressive even when they communicate like (Participant) BK has mentioned, like 'How are you love?', or like 'bella' to call the females. In Malaysia you don't hear people in the shops 'How are you sayang?' This doesn't feel right, but overseas it's very natural when you walk into shops, the cashier tries to build some sort of rapport. They try to get to know you where else in Malaysia or Asia in general, more conservative." (GR, FG5)

"Sometimes you feel like there's no choice. In order to build rapport, you just have to compromise. I would have to sacrifice how I would normally interact with people just to be able to establish that basic rapport with them. Not my usual wavelength of how I converse. It is very short lived." (BL, FG5)

The localised English vernacular in Malaysia can be also a barrier to building intercultural rapport. While the usage of Malaysian English can build rapport between Malaysians, it can be difficult for someone who is unfamiliar with the localised English to understand certain sentences. Because Malaysian English is also spoken with unique intonation, colloquialism, and syntax, this creates a gap in rapport-building between Malays and those from another culture.

"Malaysian memes, like just Malaysian jokes that is very localised, like you would only get it if you're a Malaysian, sometimes if we share it among our friend group and she wouldn't understand." (DM, FG4)

"When you translate, the energy already like drops down. Some things in your mother tongue, it makes more sense. When we repeat in English, she's like, 'Huh?' When we repeat again, the joke's dead." (LV, FG4)

### Theme four: Rapport is a process that is slow to build but hard to break

The last recurring theme in our sample is that participants give a rich account of rapport as a process. This process has been described as elastic, flux, and emergent with unfixed boundaries - depending on the quality of interaction of those involved. This interaction is a mechanistic process of discovery, where rapport incited by initial impressions that can either be clarified, affirmed, or reversed depending on and in response to the quality of this interaction. The rapport process is dynamic enough to accommodate actions and behaviours that build or diminish it. The elements contributing to the formation of rapport are different from those contributing to its maintenance. While first impressions invite the formation of rapport, much of the dynamicity of rapport emerges once the interactions and interpersonal exchanges begin. This is similar to previous findings in literature where rapport is understood as a dynamic concept that exists between individuals (Gabbert et al., 2021) and dependent on the quality of the dyadic interaction (Neequaye & Mac Giolla, 2022).

"It's not straightforward even if you establish a certain pattern, when it comes to meeting the new person you would still start from zero. In many ways the boundaries are not fixed. It can only go both ways; it pales in significance when you meet someone better or you just, it remains stagnant or it becomes more progressive." (BL, FG5)

Interviewees' accounts also suggest that rapport can be lost. For example, a lack of consistency ensuing initial impressions, the presence of conflict, or the end of a purpose for a relationship to continue – all can lead to a break in rapport. Participant FB in FG4 explains a break in the "wavelength", the inability to relate to each other anymore, is one of the causes of rapport to terminate.

"If you have positive vibes in the first impression that doesn't necessarily mean that the level of positive vibes that you get will be consistent throughout years, decades, even if you get there to that person, so consistency is very, it's something that you have to take into consideration when you're building or maintaining your rapport." (MD, FG1)

"During the moment I felt it but once that moment has passed, nothing." (BL, FG5)

"The most obvious one is conflict. If you have conflict and you don't wanna resolve it like adults, gone. Second of all, purpose. If there's no purpose for the relationship, then it would drift away." (HP, FG4)

Disruption in rapport can be merely temporary, as shown by an account below given by a participant. This verbalises how rapport can shift, depending on the actions of the interacting parties. This suggests that rapport is not a straight or static progression, nor is it exponential.

"After getting positive vibes, sometimes you will get negative vibes but the thing is it must be a balance. You can still feel it's more positive but sometimes I do have friendships that like sometimes the vibes are a bit more negative but in the end because I'm more willing to, I can sort of take if they're being like rude or a bit negative just because I know it's only temporary, I do believe in maintaining the rapport." (AD, FG1)

Rapport can also stagnate. Feelings in this state include "comfortable and familiar with level of emotional closeness but lonely" (BB, FG1), fear and reservation in exploring different sides of the relationship (fear of "uncharted territory between the two of you in the friendship" by YL from FG2). Having restraint in conversational boundaries seems to be valued in the Malaysian culture, where participants hold the belief that Malaysians are slower to build rapport relative to Western culture – again denoting that rapport is a process. "It's more gradual, we're not as bold." (BL, FG5)

"It may take longer to build rapport because our first encounters with someone we're walking on thin ice. We don't want to be intrusive. For us Asians, we are always wanting to show that you're a good person." (GR, FG5)

"We have this shell that takes time to peel all the layers before you can get to the person to be more comfortable with you." (BK, FG5)

While slow to build rapport, once established, seems to be long-lasting, fostering continued stable, social interactions between individuals in the Malaysian culture. Our participants give accounts of adapting themselves to maintain existing dynamics, to maintain social harmony, and to avoid conflict. One participant describes it as a "bad comfort zone", being "emotionally close but not good vibes", citing feelings of being "comfortable but lonely" and yet a preference to tolerate. This coincides with the concept of 'relational mobility' as introduced earlier in our paper (Thomson et al., 2018). This finding that rapport takes longer to build but tends to be maintained and stronger once it has been built suggests that perhaps rapport in Malaysian culture requires more than what investigative interviewers can build in a single, short interview.

"For us Asians, we try our best to salvage or to save that rapport." (GR, FG5)

"Social harmony is very important in influencing rapport." (MD, FG1)

"Don't click but don't voice this out so as to not be selfish." (CH, FG3)

"Rather than this being conformity it's more like refusal to make an issue 'cause we don't really want to make an issue out of it." (BB, FG1) "We try to salvage rapport 'cause we are a collective society." (RD, FG5)

"We are also risk avoidant – won't want to risk doing anything wrong that will somehow hurt the relationship especially if we valued the rapport with somebody." (MD, FG1) One participant reasons that this tolerance and accommodating nature is partly due to living in a multi-ethnic country. "I have Muslim friends, I shouldn't break this rapport just because I wanna go Korean BBQ, and there's pork and they can't. So in a way we have to learn to be a lot accommodative. I guess like being in our culture, personally we have to take time to understand the other person." (GR, FG5)

#### **DISCUSSION**

Rapport is a topic that has been widely discussed in an investigative interviewing setting. However, the understanding of how rapport is perceived, and its building blocks are very much limited now to the West. Rapport by its definition is built within a social interaction; a broader understanding of how it is built in different cultures given various social norms and expectations is an important first step, key in understanding rapport in an investigative interviewing context. As shown through our analysis of a group of Malaysians and their understanding of rapport, our findings highlight that at the outset rapport is conceptualised very much similarly to people from the West. However, we also highlight some important distinctions in how Malaysians exhibit and receive rapport, and how this can be applied to investigative interviewing in practical ways. The elasticity of rapport is evident in our sample, as are the layers of rapport in operation (i.e., interracial rapport). With a unique set of localised English vocabulary due to the amalgamation of the three main racial groups, the underlying socio-political climate reveal differences between the Malaysian culture and those from the West. Our findings suggest rapport-building in Malaysian culture would involve the use of open body language, head nodding, indirect and unsustained eye contact, as well using localised particles with interviewees, whereas emphasising self-disclosure may be detrimental to the relationship.

It was also observed in this study that aspects mentioned by participants – such as bonding over shared suffering and managing interpersonal conflict – are easier to observe in a social context of rapport in friendships and family relationships, and this is arguably different from rapport in a formal investigative interview (Gabbert et al., 2021; Gabbert & Hope, 2022). That said, the findings here highlight the importance of having a wider understanding of how rapport is understood and built in a particular culture. For instance, cultural and religious identities as well as language play crucial roles in social interactions but are underresearched in the context of investigative interviewing (Wilson et al., 2022). Evidently, these factors affect the quality of interaction between interviewee and interviewer, and therefore the quantity of information that can be gathered. The implications of this conceptualisation can influence police decision surrounding investigative interviewing practice, including the police's ethical and professional responsibility to assign interviewers that will result in the most comfortable interviewees (e.g., considering language choice when conducting interviews), and thereby potentially more efficient interviews.

An application to minimise resistance and to maximise the impact of rapport in investigative interviews while improving the overall quality of interactions in a multicultural country such as Malaysia starts from effective pre-interview preparation and knowing the setting, which can include finding out what languages the interviewee speaks, paying attention to the race and religion of the interviewee and interviewer, what localised vernaculars they are familiar with, familiarising with the politics and practice of post-colonial interracial and intercultural complexities at hand, while paying attention to nuanced characteristics of intercultural communications such as displaying appropriate rapport behaviours. Evidently, what is recommended to build rapport in the West cannot be generalised to non-WEIRD countries, or at the very least requires adjustments. The consequence of not taking heed of the contextual variations of rapport is immense, resulting in misinterpretations - especially in a country where rapidly establishing rapport is challenging and may require several longer interviews as opposed a single, short interview. This obviously has financial implications, as it necessitates more time and resources.

Investigative interviewing guidance, such as the United Kingdom's 'Achieving Best Evidence' (ABE; Home Office, 2022) acknowledges the potential impact of cultural differences on the success of the interview. In this guide, investigative interviewing teams are encouraged to consider the interviewee's "race, culture, ethnicity and first language" and "specific minority groups" (Home Office, 2022, p. 21). Interviewers are further directed to seek advice about customs and beliefs of the witness they are unfamiliar with, including how the culture responds to authority, shame, and expectations of respect. The ABE acknowledges that rapport broken due to cultural misinterpretations can be avoided by taking measures to understand the relevant culture at hand. While this guidance is sensible in the general sense, it is limited in being able to offer specific advice. At present, there are no guidelines available about the use of rapport in Malaysia in police interviewing. As shown by Chung and colleagues (2021), investigative interviewers in this part of the world critically need more training, help, and guidance in rapport building with suspects and witnesses. This study hopes to fill some of these gaps, and to also offer a comparison for future research of rapport in hyperdiverse communities, and to expand the evidence-base of studies examining cultural differences in police interviewing. More research is needed to build an evidence-base and inform guidance.

#### **LIMITATIONS**

Our sample was drawn from a private university in the heart of Kuala Lumpur, the capital city of Malaysia. The sample was also made up of students who might hold higher levels of education and world experience compared to the whole Malaysian population. Inevitably, our sample may represent a portion of individuals who already feel comfortable conversing in English. This may have implications for the extent to which their perceptions reflect others in the population. However, we made provisions for these possibilities by recruiting students from the three major ethnicities of the country in each of our focus groups to stimulate and generate a comparison of experiences. While we mentioned

to participants prior to arriving to the interview not to research the word 'rapport' to not bias their responses, we did not ask a follow-up to confirm this. Lastly, we conducted this study in the context of social rapport, and not in an investigative interviewing setting where the latter setting would feature a power imbalance between the interviewer and interviewee. This paper also highlights that rapport is conceptually and operationally more challenging than laboratory studies can show, nonetheless, future studies warrant quantitative investigations into the effects of the elements proposed in this study. The findings of this study also offer a comparison for future research of rapport in other cultures and multicultural societies, and to expand the base of studies examining cultural differences.

#### **FUTURE DIRECTIONS**

To enforce equity and equality within investigative interviewing, it is essential to better understand the impact of rapport within various cultures toward developing training that is sensitive to the needs of these groups. Understanding how rapport is shaped within different cultures goes in some way to break the ethnic divide in the investigative interviewing space, while mitigating inequalities and disadvantages that these groups may currently experience with more tailored approaches. We hope that the results of this study might supplement some of the current limitations and be able to give relevant advice to practitioners on how to build rapport with interviewees from a Southeast Asian culture. This is an important consideration because practitioners should be equipped with relevant training to maximise the impact of the techniques they employ during an interview and for the tactics to be at their most effective. In parallel, it is also important because interviewers can reasonably expect to interview individuals from a range of diverse cultures, especially in the context of Malaysia, but also given that we are increasingly becoming a culturally diverse society, even superdiverse in some cases (Office for National Statistics, 2021).

#### CONCLUSION

Rapport is an interesting and much researched topic, both within and outside the field of investigative interviewing. It is also recognised as an important component of police interviewing. Currently, much of the research about rapportbased interviewing has been undertaken in Western countries, and very little is understood outside this context. By contrast, this paper reports a qualitative study of rapport in Malaysia, using a focus group methodology that allows an investigation of the lower channel richness and the nuances of rapport. Focus groups of university students from the main cultural groups present in Malaysia (Malay, Chinese, and Indian) participated in this study, with results suggesting that many aspects of rapport development and its maintenance are similar across cultures. However, that there are some nuanced differences that are valuable to understand, especially for police investigators, negotiators and practitioners who are working in Southeast Asian contexts.

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# Intrinsic and extrinsic factors associated with confession in an investigative interviewing context among men who have committed a sexual offense



Samuel Girard<sup>1</sup>, Tamsin Higgs <sup>1</sup>, Tony Brien<sup>2</sup>, Nadine Deslauriers-Varin<sup>3</sup>

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Correspondence to: Samuel Girard E-mail: samuel.girard.3@umontreal.ca

 $<sup>^{1}</sup>$  University of Montréal, Québec, Canada

<sup>&</sup>lt;sup>2</sup> Bureau des enquêtes indépendantes, Ministère de la Sécurité publique, Québec, Canada

<sup>&</sup>lt;sup>3</sup>Laval University, Québec, Canada



### **ABSTRACT**

Very few studies have evaluated the combination of factors enabling the prediction of the confession of a sexual offense. This is particularly worrying when considering that confession rates are lower among those who have committed a sexual offense compared to those having committed other types of crime, and their confession is often the sole evidence available. A case-control study was conducted to (1) examine individual characteristics, offense details, and situational factors predicting the confession of a sexual offense, and (2) elaborate a multivariate model to better understand the decision to confess. Seventy-eight adult males convicted of sexual offenses were recruited at the Regional Reception Centre, a federal correctional facility located in Quebec (Canada). They were divided into two groups (confessors versus nonconfessors). Results highlighted the contribution of situational factors pertaining to the investigation (e.g., type of evidence, consultation of a lawyer, setting of the interrogation room) related to the confession of sexual offending. The results also support the use of integrative approaches that take into account individual, offense and situational factors in investigative interviews seeking confession of a sexual offense. Further discussion is offered in relation to the implications of the present findings for police practices in the interrogation room.

**Keywords**; Investigative interviewing, sexual offending, confession, police, Quebec

## Intrinsic and extrinsic factors associated with confession in an investigative interviewing context among men who have committed a sexual offense

### **INTRODUCTION**

Confession is defined as the "acknowledgement of a fact which may produce consequences against the person who makes it" (Civil Code of Quebec, 2021) and is typically obtained in an investigative interviewing setting (also known as police interrogation). Indeed, confession plays a major role in the judiciary process, leading to the resolution of almost a third of criminal cases when other elements of proof are deemed weak (Leo, 1996). Once obtained, confession influences the perception of other evidence (e.g., testimonies, material evidence) in favor of the suspect's culpability (Dror & Charlton, 2006; Hasel & Kassin, 2009). Thus, the validity of a confession is of the utmost importance and so its obtention should be evaluated carefully, the goal being to achieve a high rate of confessions without provoking false confessions (whereby individuals confess to crimes that they did not commit). Furthermore, the confession rate among men convicted of sexual offenses is lower (about 30%) compared to that for other types of crime (on average 50%) during an investigative interview (Gudjonsson, 2003; Holmberg & Christianson, 2002; Lippert et al., 2010). This difference can be explained by the social stigma and shame often associated with sexual offending, both societally and inside correctional establishments (St-Yves & Deslauriers-Varin, 2009). Those accused of sexual offenses may also be afraid to confess because they anticipate physical or verbal violence from other inmates or staff during an eventual institutional stay (Åkerström, 1986; Higgins & Ireland, 2009; Ricciardelli & Moir, 2013). The lower confession rate for sexual offenses remains an important concern considering it is often the only evidence of culpability (Kebbell et al., 2006). Moreover, confession carries more weight in the jury's decision than testimonies or material evidence (Appleby et al., 2013; Kassin & Neumann, 1997).

Numerous studies over the past few decades have been carried out to identify individual differences, offense characteristics and situational factors associated with confession for a vast array of criminal offenses. Some of these studies presented mixed findings, not allowing firm conclusions for each category of factors, but some tendencies have been observed (Deslauriers-Varin et al., 2011). Individual factors (i.e., relating to the suspect) generally associated with confession in the literature are: Being younger at the time of the interrogation (Pearse et al., 1998; Viljoen et al., 2005); being White (Leo, 1996; St - Yves, 2002); feeling guilty about the crime (Gudjonsson & Petursson, 1991; Sigurdsson & Gudjonsson, 1994; St - Yves, 2002); certain personality attributes such as introversion and neuroticism (i.e., anxious, emotional, low self-esteem; Beauregard et al., 2010; Gudjonsson & Petursson, 1991; St - Yves, 2002); and having had no past criminal offenses (Pearse et al., 1998; Snook et al., 2015). Offense characteristics associated with confession relate mostly to the nature of the crime and its gravity, a less serious or nonviolent crime being more readily confessed to (Holmberg & Christianson, 2002; Moston et al., 1992; St - Yves, 2002). Finally, situational factors most influencing suspects' decision to confess are the perceived quality of evidence held against them (Brimbal & Luke, 2019; Deslauriers-Varin et al., 2011; Moston & Engelberg, 2011), not having used legal advice (Deslauriers-Varin et al., 2009; Snook et al., 2015; Stephenson & Moston, 1994), and the interrogation techniques and strategies used by investigators - empathetic approaches favoring confession (Alison et al., 2013; Clemens et al., 2020; Holmberg & Christianson, 2002; Kebbell et al., 2008).

However, the study of different types of factors separately is insufficient, as it does not take into account the dynamic and multifactorial reality of investigative interviewing (Deslauriers-Varin, 2022). In other words, the fragmented approach that has often been used, categorizing factors (i.e., individual, offense and situational), has not permitted to observe the combined effect of identified factors on confession. Some recent studies exploring an interaction hypothesis have been conducted. Notably, Deslauriers-Varin et al. (2011; 2022) established a prediction model allowing to discriminate confession from non-confession based on individual, offense and situational characteristics, but this was not specifically among perpetrators of sexual offenses. Only Beauregard et al. (2010) have developed an integrative model of suspect, victim and offense characteristics associated with confession, using a classification-tree approach (CART), which allows to develop a prediction model with a categorical outcome variable, in a sample of men convicted of sexual offenses. Yet, situational factors (i.e., surrounding the police investigation, from the arrest to the potential conviction of the suspects) were not taken into consideration. This limitation is all the more salient considering that situational as well as cognitive factors (e.g., intoxication at the time of the offense, internal pressures, fear of legal sanctions) seem to play a crucial role in a suspect's decision to confess over and above individual and offense factors (Deslauriers-Varin, 2022). Until now, no interaction model including individual, offense and situational factors has been developed specifically aiming to better understand the obtention of confession in cases of sexual offending, and not much is yet empirically demonstrated with regards to sexual crime investigation (Deslauriers-Varin et al., 2018; 2021). The present study aimed to address this gap in the literature.

### **Objectives**

The objectives of this exploratory study were: 1) to identify individual, offense and situational factors associated with confession among men convicted of sexual offenses; and, 2) to establish an interaction model of these factors allowing to better understand the decision to confess in an investigative interviewing context.

### **METHOD**

A case-control study was conducted using data from correctional files of men convicted for sexual offenses at the Regional Reception Centre (RRC), a maximum security federal correctional facility located in Quebec, Canada. A retrospective design was used to compare men who confessed during their interrogation to those who did not. Factors identified based on the preceding literature were used as potential predictors of confession.

### Sample

Participants were recruited over a six-year period ending in 2001 and completed their participation by 2004, at the RRC. All persons having been found guilty of a sexual offense subject to a federal sentence in the province of Quebec go through the RRC. All those who did so in the study recruitment period and who agreed to participate were included when specific criteria were met: 1) Only adult male participants were included since minors are absent from the prison environment, the majority of people having committed sexual offenses are male, and the presence of females in the sample could have led to unreliable results given the possibility of gender differences on the measured variables; 2) There needed to be a sexual offense file from the Service de police de la Ville de Montréal [City of Montreal Police Service] (SPVM), as this ensured that every police interview was conducted by investigators specialized in sexual offending; 3) Participants must have had an investigative interview prior to being found guilty of a sexual offense resulting in a twoyear minimum federal sentence. This initial process yielded a total sample of 88 men. After datascreening, one participant appeared in the dataset twice and so the duplicate was removed. Additionally, five had more than one victim in distinct criminal events and were excluded to ensure independence of observations. Four participants had to be excluded because no information regarding their confession was available. The final sample was therefore comprised of 78 participants. Their mean age was 36 years (SD = 10.6), the majority were White (74.4%), and the indexed conviction was a sexual recidivism for

almost a third of the sample (30.8%). Victims were mostly female (85.9%), White (87.2%) and, on average, 18 years of age (SD = 13.3).

### **Procedure and Measures**

Data were collated using two instruments: The computerized questionnaire on sexual delinquency (CQSD; St-Yves et al., 1994), which is widely used for collecting data on sexual offending at the RRC (e.g., St-Yves et al., 1994; Ouimet et al., 2000; Pellerin et al., 2003), and the observation and research questionnaire for interviewing sexual abusers (ORQISA).

The CQSD is a computerized tool developed to collate information from a semi-structured psychological evaluation of individuals having committed a sexual offense, and data from correctional files. Every participant attended an assessment (about three and a half hours long) in order for the CQSD to be completed. In addition to an interview, seven self-report scales are administered through the CQSD: 1) The Carlson Psychological Survey [CPS], which was developed with incarcerated males to predict institutional adjustment (50 items on a 5-point Likert scale, divided into subscales measuring the frequency of chemical abuse, thought disturbance, antisocial tendencies, and self-deprecation, and including a validity subscale and profile type); 2) The Novaco Anger Inventory (60 items on a 5-point Likert scale where higher scores indicate greater tendencies towards angry reactions); 3) The Gudjonsson Blame Attribution Inventory, which assesses how offenders attribute blame for their crime using a true/false scale of 42 items divided into three factors: Guilt, external and mental element; 4) The Miller Social Intimacy Scale, assessing adult close relationships (17 items on a 10-point Likert scale of the frequency of intimacy difficulties); 5) The Abel and Becker Cognitive Scale, measuring cognitive distortions held by individuals who have sexually offended against children (29 items on a 5-point Likert scale of the level of agreement with statements representing cognitive distortions); 6) The Burt Rape Myth Scale, which evaluates victim-blaming attitudes and beliefs, for example, a woman might

deserve being assaulted because of the way she is dressed (14 items: 11 measured on a 7-point Likert scale and three measured on a 5-point scale); and 7) Life satisfaction Scale (5 items on a 7-point Likert scale of the level of agreement with indicators of life satisfaction).

The ORQISA is a coding scheme used to collate variables pertaining to the interrogation. Information is coded from that which is contained in police reports, victim and witness testimonies, and Court notes. It is divided into ten sub-sections: 1) identification form and subject's personal information; 2) characteristics of the offense(s); 3) the victim(s); 4) the plaintiff(s); 5) the arrest; 6) the police detention; 7) the interrogation; 8) the judiciary procedure; 9) the interrogator at the time of the interrogation; and, 10) the evidence available before the arrest.

### Individual, Offense and Situational Factors

A total of 241 variables, categorised as individual (e.g., sociodemographic variables, personality inventories, psychiatric antecedents), offense (e.g., victim variables, criminal antecedents, *modus operandi*), and situational factors (e.g., length of interrogation, interrogator characteristics, consultation of a lawyer), were recorded from the ORQISA and CQSD for each participant. On the basis of previous research (Beauregard et al., 2017; Deslauriers-Varin, 2022), 55 of these variables were identified for inclusion in the present study (Tables 1 and 2).

### Confession

The dependent variable of confession was dichotomized to facilitate the subsequent analyses even though its nature is much more complex: Confession is not static; it is a dynamic decision process, which is subject to change, and corresponds to a spectrum of involvement from the individual (e.g., partial confession). In other words, a suspect could change his decision to confess based on the rapport established between him and the interrogator and the strategies used to conduct the investigative interview. The suspect could

acknowledge the *actus reus* (i.e., that the sexual act did occur), but claim that it was consensual. However, this nuance could not be considered given the sample size and the exploratory nature of the study. Therefore, each participant was assigned to a group (confession versus non-confession) based on partial/full admission or total denial. Two judges

agreed to assign a participant to the confession group as soon as an incriminating element was acknowledged by the suspect either for the committed acts or for criminal and/or sexual intent. The confession group comprised of 40 individuals and the non-confession group comprised of 38 individuals.

TABLE 1				
Bivariate analyses of individual, offense and situational factors of category (N = 78).	jorical nati	ure associated 1	with co	onfession
Categorical variables	$\chi^2$	р	dl	Phi
Individual factors				
Suspect's civil status	0.02	.901	1	0.01
Suspect's ethnicity	10.54	.001*	1	0.37
Suspect's effective schooling	0.01	.913	1	0.01
Longest work experience (months)	29.23	.350	27	0.63
Global evaluation of risk	0.75	.388	1	0.10
Exposition to sexual abuse before the age of 18	0.08	.773	1	-0.03
Internal or external follow-up for psychiatric problems before the age of 18 $^{\rm a}$	7.27	.007*	1	-0.31
Sexual orientation	0.88	.347	1	-0.11
Suicide attempt(s)	3.41	.065*	1	-0.21
Presence of a paraphilic disorder (DSM-IV)	0.16	.694	1	-0.05
Presence of a personality disorder (DSM-IV)	0.02	.887	1	-0.02
Offense characteristics				
Premeditation of offense	0.01	.919	1	0.01
Earliest time of offense(s) perpetration	0.23	.633	1	-0.07
Latest time of offense(s) perpetration	0.16	.691	1	-0.06
Victim's sex	0.06	.815	1	-0.03

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Victim's ethnicity	4.49	.034*	1	0.24	
Type of relationship between aggressor and victim	0.28	.597	1	-0.06	
Proximity level of the first contact between aggressor and victim	1.08	.300	1	0.12	
Suspect's precrime affect	0.01	.933	1	0.01	
Suspect's crime phase affect	0.15	.702	1	-0.05	
Type of approach to commit the offense	0.87	.350	1	0.11	
Level of force used	0.80	.373	1	0.10	
Victim's intoxication	0.89	.346	1	0.11	
Gravity of injuries inflicted to the victim	0.01	.916	1	0.01	
Alcohol consumption before the offense	5.64	.018*	1	0.27	
Drug consumption before the offense	1.74	.188*	1	0.15	
Present conviction constitutes a sexual recidivism	1.75	.186*	1	-0.15	
Situational factors					
Declaration of one or more victims	3.40	.334	3	0.21	
Type of declaration made by the victim(s)	2.11	.716	4	0.16	
Witnesses who reported the facts	0.03	.862	1	-0.02	
Type of evidence available prior to the suspect's arrest	5.62	.018*	1	-0.27	
Arrest motive	5.24	.513	6	0.26	
Arrest type	0.22	.897	2	0.05	
Suspect's consultation of a lawyer	2.74	.098*	1	0.19	
Physical setting of the interrogation	1.68	.195*	1	0.15	
The lead investigator is also the interrogator	3.63	.057*	1	0.22	
Type of material evidence	0.61	.437	1	0.09	

 $<sup>^{</sup>a}$  E.g., schizophrenia, psychosis, bipolarity, anxiety, depression, etc. **Note.** Variables marked by an asterisk were retained for multivariate analyses (p < .25).

TABLE 2				
Bivariate analyses of individual, offense and situational factors of con	tinuous na	ture asso	ciated u	oith confession (N
= 78).				
Continuous variables	t	р	dl	Cohen's d
Individual factors				
Suspect's age during the initial evaluation	0.11	.917	76	0.02
Number of appropriate and stable emotional and sexual relationships	-2.96	.004*	66	-0.72
CPS: chemical abuse <sup>a</sup>	-0.17	.868	64	-0.04
CPS: thought disturbance	0.47	.643	64	0.11
CPS: antisocial tendencies	0.25	.803	64	0.06
CPS: self-deprecation	2.32	.023*	64	0.58
CPS: profile type	0.51	.612	54	0.14
Novaco anger inventory	0.91	.370	49	0.25
Gudjonsson blame attribution inventory: external factor	0.01	.993	42	0.00
Gudjonsson blame attribution inventory: internal factor	1.42	.162*	42	0.45
Gudjonsson blame attribution inventory: culpability	0.31	.760	42	0.10
Miller social intimacy scale	-0.20	.846	47	-0.06
Abel and Becker cognitive scale	-0.11	.912	42	-0.03
Burt rape myth scale	-2.69	.010*	43	-0.81
Life satisfaction scale	-0.97	.337	49	-0.28
Offense characteristics				
Victim's age	-1.01	.316	74	-0.23
Situational factors				
Interrogation's length (min)	1.18	.242*	67	0.29
Investigator's experience during the interrogation (year)	-1.65	.117*	17	-0.86

<sup>&</sup>lt;sup>a</sup> Carlson Psychological Survey (CPS). **Note.** Variables marked by an asterisk were retained for multivariate analyses (p < .250).

### **Analytical Strategy**

First, the normality of data distributions was evaluated. Thirty-two variables were dichotomous, five categorical and 18 continuous (Tables 1 and 2). Concerning the distributions of the continuous variables, skewness and kurtosis coefficients were outside the recommended limits (Curran et al., 1996) for two variables, namely the victim's age and length of interrogation. Transformations were considered only if the variables in question were retained after preliminary analyses. Also, nine variables presented extreme scores [0%-3.8%], but those scores were all conserved since they did not appear to represent significant outliers.

Next, bivariate analyses ( $\chi^2$  and t-tests) were used, not specifically to compare between group variations, but as a model-construction strategy for subsequent regression models: Bivariate analyses were used to evaluate candidate variables for multivariate analyses, and to identify potential predictors of confession. Hosmer and Lemeshow (2000) recommend a significance threshold of .25 to filter relevant variables to select for regression modeling; a traditional threshold of .05 being too restrictive to identify independent variables and their interactions with the dependent variable. In terms of implications, the independent variables selected do not predict confession, but this does not rule out the fact that they may eventually do so on the basis of future research. These analyses thus allow to reduce the number of independent variables to assess prior to regression modelconstruction without discarding a potentially valid predictor given the sample size and statistical power.

Following this procedure and based on the theoretical relevance of variables, as well as considering the sample size (about 10 participants per variable being necessary in the final model), predictors were identified to enter into logistic regression models. Logistic regression models were employed to explore the possible models of confession with this particular sample on the basis of individual, offense and situational factors, while

taking into consideration the interaction between them using a significance threshold of .05.

### **RESULTS**

### **Bivariate Analyses**

Seventeen variables were identified for further examination using the significance threshold of .25 (Hosmer & Lemeshow, 2000), as shown in tables 1 and 2. Individual factors associated with the confession of a sexual offense in an investigative interviewing setting were: 1) the suspect's ethnicity (0 = White; 1 = Ethnic minority); 2) psychiatric antecedents before the age of 18 (0 = No; 1 = Yes); 3) suicide attempt(s) (0 = No; 1 = Yes); 4) having had less appropriate and stable emotional and sexual relationships; 5) having had a higher selfdepreciation score on the CPS (i.e., a person who, generally, doesn't value himself and refuses any credit for his accomplishments); 6) having had a higher score on the internal factor of the blame attribution questionnaire (i.e., a person reporting having mentally lost control during the crime); 7) having had a lower score on the Burt rape myth scale.

Offense characteristics associated with confession were: 1) the victim's ethnicity (0 = White; 1 = Ethnic minority); 2) alcohol consumption before the offense (0 = No; 1 = Yes); 3) drug consumption before the offense (0 = No; 1 = Yes); 4) that the present conviction constitutes or not an act of sexual recidivism (0 = No; 1 = Yes).

Situational factors related to confession were: 1) the type of evidence (0 = direct and scientific, i.e., direct link between the suspect and the crime based on material evidence; 1 = direct, but not scientific i.e., direct link with the suspect and the crime based on witnesses or testimonies); 2) the suspect's consultation of a lawyer during the interrogation (0 = No; 1 = Yes); 3) the physical setting of the interrogation (0 = Private office with one investigator; 1 = Private office with two investigators); 4) the fact that the lead investigator was the interrogator (0 = No; 1 = Yes); 5) the fact that

the interrogation lasted longer; 6) that the interrogator had fewer years of experience as an investigator.

Being an exploratory study, there was value in examining all of the available variables, even though subsequent theoretically led decisions were necessary in the analytical process. In order to select the most theoretically and statistically supported variables for the next step in the analyses, the following variables were discarded: 1) suicide attempt(s), due to correlation (.37) with psychiatric antecedents; 2) CPS self-deprecation subscale (less relevant to the research question); 3) blame attribution inventory and 4) rape myth scale (43.6% and 42.3% of missing values respectively); 5) drug consumption before the offense (since alcohol consumption is more frequently found in the literature and is associated more strongly with confession); 6) sexual recidivism (VIF too high at 13.98); 7) physical setting of the interrogation room; 8) that the lead investigator is also the interrogator (less relevant for the research question); 9) the experience of the interrogator (too many missing values).

### **Logistic Regressions**

In order to include the maximum number of participants in the regression analyses, all conserved variables were transformed into categorical variables including a missing value category. Categories presenting fewer than five cases for a variable were merged with other ones. Also, five participants were excluded from the regression analyses as they had at least one missing value for a variable being entered in the model, thus bringing the sample to 73 participants. A maximum-likelihood forward stepwise regression method was then selected to include the variables most associated with confession in the model one at a time. Finally, three blocks of regression were constructed theoretically from the eight retained variables: individual (suspect's ethnicity, psychiatric antecedents before the age of 18 and the number of appropriate and stable emotional and sexual relationships), offense (victim's ethnicity and alcohol consumption prior to the offense) and situational

(type of evidence, consultation of a lawyer during the interrogation and length of interrogation). In this manner, selected variables in one block are not removed from the next ones. The block's order of entry in the regression was chosen considering that situational factors have more impact in the decision to confess than do offense or individual factors (Deslauriers-Varin, 2022). The principal model presented therefore takes into account the situational, offense and individual factors respectively (Table 3).

The dichotomous independent variables were weakly correlated overall [0.01-0.17] indicating that each one of them explained confession in a semi-independent fashion. Thus, the fact that evidence was direct (i.e., that the suspect was directly linked to the offense) but not scientific, that victims were White, that suspects had not taken alcohol prior to the offense and that they had a psychiatric follow-up before the age of 18 were all factors that, together, increased the likeliness of suspects confessing to a sexual offense during the interrogation.

A ROC curve was produced (Figure 1) to show the model performance. This can also help to with comparison to other models without being influenced by the prevalence of confession or by the choice of a cutting point. Model performance, measured by the area under the curve, was 78.5% [0.68-0.89]. The regression statistic was designed to obtain the most predictive model according to the method of selecting variables, but other selections of variables are typically possible, sometimes resulting in a model that performs similarly.

An alternative model that is particularly interesting supports other factors as predictive of confession. This model (Table 4) takes into account the factors' proximity to the suspect, that is, the extent to which a category of factors has the potential to influence a person's behavior. Consequently, distal factors become contingent on proximal factors, such as in the way that interrogators build rapport with suspects notably by identifying common interests. Therefore, the individual factors block (proximal to the suspect), offense characteristics block

(intermediate), and situational factors block (distal) were analyzed using an ascending stepwise maximum-likelihood selection. In this model, the retained independent variables were weakly correlated indicating that each one of them explained confession semi-independently [0.09-0.26]. If suspects were White, had psychiatric antecedents before the age of 18 and had not had any appropriate or stable emotional and sexual relationship compared to having had more than

three, the probability that they confessed during the investigative interview was higher. The ROC curve shown in Figure 2 indicates the performance of the alternative model. Model performance, measured by the area under the curve, was 83.4% [0.74–0.93]. Comparison of the performance of the different models (Table 5) allows an evaluation of the respective contribution of each category of factors to the predictive power of each model

TABLE 3						
Principal model of situational, offense and individual factors predicting confession ( $n = 73$ ).						
	Dependent v	ariable				
Independent variables	Confession (= 1)					
	OR	p	95% CI			
Block 1: Situational						
Type of evidence <sup>a</sup>	0.14	.033	[0.02-0.85]			
Block 2: Offense						
Victim's ethnicity <sup>b</sup>	7.64	.038	[1.12-52.05]			
Alcohol consumption prior to offense <sup>c</sup>	3.07	.047	[1.02-9.27]			
Block 3: Individual						
Psychiatric antecedents before the age of 18 <sup>d</sup>	0.22	.047	[0.05-0.98]			

<sup>&</sup>lt;sup>a</sup> The category of reference corresponds to the fact that the evidence is direct and scientific.

Note. Block 1 (log-likelihood = 94.044; Nagelkerke  $R^2$  = .119; classification rate = 63.0%), block 2 (log-likelihood = 83.254; Nagelkerke  $R^2$  = .286; classification rate = 69.9%), and block 3 (log-likelihood = 78.601; Nagelkerke  $R^2$  = .351; classification rate = 74.0%).

<sup>&</sup>lt;sup>b</sup> The category of reference corresponds to the fact that victim is White.

<sup>&</sup>lt;sup>c</sup> The category of reference corresponds to the fact of not taking alcohol prior to the offense.

<sup>&</sup>lt;sup>d</sup> The category of reference corresponds to the fact of not having psychiatric follow-up.

TABLE 4				
Alternative model of individual, offense and situational factors predicting confession (n = 73).				
	Dependent variable			
Independent variables	Confession (= 1)			
	OR	р	95% CI	
Block 1: Individual				
Suspect's ethnicity <sup>a</sup>	6.00	.011	[1.52-23.71]	
Psychiatric antecedents before the age of 18 <sup>b</sup>	0.18	.040	[0.03-0.93]	
Number of appropriate and stable emotional and sexual relationships <sup>c</sup>	1			
Missing values	0.74	.737	[0.07-8.15]	
4 relationships and more	0.11	.050	[0.01-1.01]	
Between 1 and 3 relationships	0.51	.524	[0.06-4.09]	

<sup>&</sup>lt;sup>a</sup> The category of reference corresponds to the fact that the suspect is White.

Note. Block 1 (log-likelihood = 77.464; Nagelkerke  $R^2$  = .366; classification rate = 79.5%), blocks 2 (offense) and 3 (situational) add no significant value to the prediction model.

TABLE 5 Comparison of predictive power of each model.					
Models	Measures	3			
	n	Area under the curve (%)	95% CI		
Principal model	73	78.5	[0.68-0.89]		
Alternative model	73	83.4	[0.74-0.93]		
Block of individual factors	76	83.1	[0.74-0.93]		
Block of offense characteristics	77	67.1	[0.55-0.79]		
Block of situational factors	76	59.3	[0.47-0.72]		

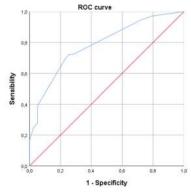
<sup>&</sup>lt;sup>b</sup> The category of reference corresponds to the fact of not having a psychiatric follow-up.

 $<sup>^{\</sup>rm c}$  The category of reference corresponds to the fact of having no appropriate or stable relationship.

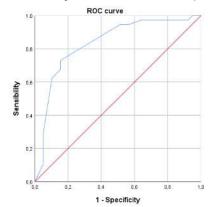
Note. Individual, offense and situational factors' blocks here presented contain the same variables used for the formation of regression blocks.

Figure 1

ROC curve of the principal model (confession =1).



**Figure 2**ROC curve of the alternative model (confession = 1).



### **DISCUSSION**

The goal of the present study was to identify factors that, taken together, would predict confession to a sexual offense in an investigative interviewing context. Two models had the capacity of discriminating between individuals having confessed and those who had not. The principal model, capitalizing on situational factors, contained every category of factors (individual, offense and situational). The factors predicting confession in a decreasing order of contribution were: That the evidence was direct but non-scientific, that victims were White, that suspects had not taken alcohol prior to the offense and that they had an internal or external follow-up in psychiatry before the age of 18. The alternative model, considering the factors' proximity to the suspects, only contains individual factors. The fact that suspects were White, that they had psychiatric antecedents before the age of 18 and that they had not had any appropriate and stable emotional and sexual relationships compared to having had more than three, all increased the probability that they confessed during the interrogation. The predictive power of these models were comparable.

### **Individual Factors**

### Suspect's Ethnicity

In this present sample, confession was more often obtained when suspects were White, which might be explained by the hypothesis that investigators, at least in Quebec, are often themselves White; even though this factor could not be directly measured in this study (St-Yves, 2006). Indeed, the fact that a suspect and an interrogator share the same cultural codes (e.g., language, appearance, interests, etc.) favors the establishment of rapport between the parties (St-Yves, 2002, 2006). Suspects are, then, more inclined to cooperate with an interrogator who looks like them, shows himself to be understanding and to whom they feel they can trust.

### **Psychiatric Antecedents**

That suspects were having had psychiatric antecedents before the age of 18 favored their confession in the interrogation room can be understood considering the stressful nature of the situation. Feasibly, a person having had early contact with psychiatric services is more likely to present psychological vulnerabilities, notably in the comprehension of his rights (e.g., to silence, to a lawyer) during the interrogation and of the consequences of a confession in terms of his conviction (Follette et al., 2017; Redlich, 2004). These

vulnerabilities will be exacerbated by the stressful nature of the investigative interview in itself, but also by the entire judicial process (e.g., arrest, detention, etc.). However, the results presented here may not define clearly the bounds between a true confession and a false one given by suspects with psychological vulnerabilities, especially knowing this population is susceptible to the latter (Gudjonsson, 2003; Kassin 2008). Moreover, individuals who had psychiatric antecedents know more often the care systems and are accustomed, even invited, to unveil their internal states frequently with stakeholders and professionals (Priebe & Mccabe, 2008; Priebe et al., 2011; Priebe et al., 2017). As such, the following hypothesis can be formulated: Individuals having psychiatric antecedents are less worried about unveiling themselves to authority, including investigators, when they perceive such individuals as help providers. This could promote better rapport building and, consequently, favor their confession to the extent that investigators do not hold a negative perception towards them (Oxburgh et al., 2016). Nevertheless, additional research on the subject, especially of qualitative nature, could help fill this gap.

# Number of Appropriate and Stable Emotional and Sexual Relationships

The fact that suspects had not had any appropriate and stable emotional and sexual relationships before their interrogation compared to having had more than three was associated with their confession. This association can be explained by the criminological theory of rational choice. According to this theory, suspects will have to evaluate their decision to confess or not using a costs/benefits approach; confessing when the benefits are perceived greater than the associated costs (Deslauriers-Varin, 2022; Hilgendorf & Irving, 1981; Yang et al., 2017). In relation to the present findings, the costs of a conviction for suspects without significant relationships in their lives were perhaps seen to be lower than those who did or would have, making these individuals more likely to confess. Such suspects would necessarily feel less internal pressures provoked by the implicit loss of their

significant others by confessing to the police, assuming they are guilty (Gudjonsson, 2002).

### **Offense Factors**

### Victim's Ethnicity

The fact that victims were White also increased the suspects' probability of confessing. This observation can be understood in three ways. The first revolves around the fact that suspects will, in most cases and when possible, choose a victim belonging to the same ethnocultural class than them (Wheeler & George, 2005). With suspects' and victims' ethnicity being moderately correlated in the present study, the higher frequency of confession among suspects with White victims can be partly explained by the same reasons suggested regarding suspects' ethnicity. The second reason originates from the sexual stratification hypothesis stating that the justice system's response to sexual victimization is dependent on the suspect/victim racial dyad (Tellis & Spohn, 2008). According to this hypothesis, a racist phenomenon occurs where a White victim is "worth" more than a victim belonging to ethnic minorities in the eyes of society. Consequently, more pressure (e.g., social, mediatic) is exercised on police forces to find a culprit in the cases where the victim is White (O'Neal et al., 2019). This pressure can be translated into offering more resources to police forces in those cases to consolidate the evidence; the type of evidence itself being a significative predictor of confession. In this regard, the type of evidence and suspects' ethnicity were also weakly correlated. It is however important to mitigate this hypothesis as it is formulated on the basis of studies from the United States. Even though findings can be discussed in relation to this hypothesis, the ethnocultural context of Quebec is not the same and does not reflect, at the very least, the same historical development. Finally, the third and foremost reason resides in sample bias. Indeed, about 87% of the victims in the present sample were White. This might be explained partially by the fact that White victims more often report sexual offenses to the police than do victims belonging to minority groups who might hold more negative attitudes (e.g., mistrust) towards police (Hlavka & Uggen, 2008).

This is often due to a history of oppressive and negative responses by police towards minority groups (Cotter, 2022). Still, this percentage is representative of the ethnic composition of Quebec, which would rather support the absence of difference in victimization reports given to police officers on the basis of ethnic background (Powers et al., 2018).

### **Alcohol Consumption**

Suspects that did not consume alcohol prior to the offense were more likely to confess, perhaps revealing the intentionality of the alleged offense. Conversely, suspects who drank alcohol before the offense could try to use this as a morally justifiable reason to minimize their actions and reduce their feeling of guilt (Gudjonsson, 2003). Such suspects could therefore refuse to acknowledge the nature of their acts. This is concerning considering that evidence in sexual offense cases relies mostly on witness and victim testimonies. Moreover, alcohol consumption is associated to more severe sexual offenses (e.g., intrusive, violent or lethal) especially when combined to other disinhibitors such as drugs, anger or pornography (Mieczkowski & Beauregard, 2012). A parallel could also be made, that is, that no alcohol consumption is associated with less serious offenses and, as a result, with higher confession rates (St-Yves, 2002).

### **Situational Factors**

### Type of Evidence

The fact that confession is more frequent in the presence of direct but not scientific evidence is counter-intuitive. Normally, when the evidence is direct and scientific, the quality of it is presumed good. On the one hand, if the quality of evidence is deemed as such by the suspects, they are likely to feel that hiding the truth would be useless: They would consider their version of events clearly less convincing than that of investigators (Deslauriers-Varin et al., 2011; Gudjonsson, 2003). On the other hand, having solid evidence inspires confidence in the investigators conducting the interview to attribute less pressure on the outcome of the

interrogation, favoring the building of rapport between them and the suspects (Walsh & Bull, 2012). Investigators therefore do not absolutely need a confession for the file to continue to progress in the judicial system. A notable difference can be observed with a population of men convicted of sexual offenses. Indeed, cases of sexual offending rely most of the time on testimonies thus the evidence when there is a guilty verdict is necessarily direct but not scientific (86% of the present sample). The explanation can then come from strategies used by investigators during the interrogation even though those variables could not be measured in the current study. The hypothesis that strategies of maximization/minimization have been used more often in cases where evidence was direct but not scientific can be made. Such strategies are recognized to be associated with a higher propension to confess, but also to elicit false confessions (Horgan et al., 2012; Russano et al., 2005; Vrij et al., 2007). These strategies are then considered as coercive towards suspects by maximizing the consequences of a conviction for them while minimizing the nature of their actions and their criminal intentions. These results would thus support the hypothesis according to which perpetrators of sexual offenses are more subject to facing detrimental investigative interviewing attitudes (Holmberg & Christianson, 2002; Oxburgh et al., 2013). It is however important to nuance this claim by mentioning that biases could have been introduced considering that the cases in which evidence is direct and scientific is based only on 14% of the present sample. On another note, evidence is rarely operationalized as such and this nuance of scientific or not is not taken into account. Generally, evidence is rather categorized as good (i.e., direct) or bad (i.e., indirect or circumstantial) in terms of how suspects perceive it (e.g., Deslauriers-Varin, 2022). It is this notion of direct evidence that will influence the suspects' perception of the quality of evidence held against them. Therefore, the explanation could reside in the fact that regardless of the proof being scientific or not, suspects ignore this as long as the evidence is direct. The nuance of scientific or not could therefore be considered too subtle for the context in which suspects find themselves.

The results of the current study suggest an integrative approach to obtaining a confession (i.e., that would take into consideration individual, offense and situational factors altogether). Even though individual factors seem to have played a preponderant role for the prediction of confession in the present sample of men having committed a sexual offense, it is still too early to weigh each category of factors' contribution to confession. The sole use of individual factors would have a predictive performance comparable to the use of an integrative approach to confession (83.1% vs 83.4%). It is generally asserted that situational factors have more impact than other categories of factors in the prediction of confession (Deslauriers-Varin et al., 2011; Deslauriers-Varin, 2022; St-Yves & Deslauriers-Varin, 2009), but this does not seem to be the case specific to this study. Since the data was collected between 2002 and 2004, current police practices could not be analyzed which might help to explain why situational factors did not play such a major role in predicting confession. In the past 20 years in Quebec, investigative interviewing strategies have evolved largely going from strategies that were more accusatorial and centered on confession to strategies that are more empathetic and aimed towards information gathering (Deslauriers-Varin, 2022; Meissner et al., 2012; Snook et al., 2010; St-Yves, 2014). These strategies using openness and empathy have been associated more with suspects' confessions, but such strategies could not be measured; this being one possible reason why individual factors contributed more to the present predictive models of confession (Cleary & Bull 2018; Meissner et al., 2014; St-Yves, 2006). In other words, other than looking at other important situational factors, of which interrogation strategies are a part, individual factors have an important role to play in suspects' confession (Deslauriers-Varin et al., 2011; Kassin & Gudjonsson, 2004). As for the logistic models here presented, and given the exploratory nature of this study, it remains capital to mention that they represent potential models of confession with this particular sample. Hence, predictors identified may be subject to change given advances in research. These models can then be considered as pilots that nevertheless offer considerate insight on what motivates someone convicted of a sexual

offense to confess. Nevertheless, the reality of investigative interviewing is dynamic and complex, and the study of specific factors alone remains insufficient to take that into account. The importance of relying on an integrative approach to confession is therefore recommended.

### **Sociocultural Aspects**

Among the two models identified, ethnicity (of the suspect and the victim) and mental health issues have been raised. Those factors significantly emerge from the analyses even though some caution is necessary considering that the sample is mostly composed of White suspects and victims. It would however be important to explore in depth the presence of cognitive biases - those which shape investigators' perception of suspects and vice versa - and how they might affect the obtention of a confession and the eventual conviction. More targeted professional training on transcultural and mental health issues should be given to investigators called to conduct investigative interviews with vulnerable populations in order to respect the suspects' integrity (Oxburgh et al., 2016; Villalobos & Davis, 2016). This would ensure operational practices as much efficient as ethical.

# Direct implications for interviewing men having committed a sexual offense

The current study is one of the few existing studies to have evaluated individual, offense and situational factors in a simultaneous manner and specifically in a sample of men convicted of a sexual offense. To the authors' knowledge, it is also one of the few to have included variables pertaining to the police investigation (e.g., type of evidence, consultation of a lawyer, physical setting of the interrogation room) in evaluating confession of a sexual offense. As mentioned earlier, evidence in sexual offense cases relies mostly on testimonies, compared to other types of offenses. This emphasizes more than ever the relevance for investigators to create a collaborative relationship with suspects since they have to base themselves on circumstantial evidence (e.g., one person's word against the other's). In the wake of MeToo movements, it seems vital that

investigators can have better tools in hand for understanding factors related to the confession of a sexual offense and, ultimately, so that the burden of proof does not fall back onto victims. The obtained results indicate that men having committed a sexual offense present specific challenges, notably the type of evidence held against them, when interviewing them. Accordingly, a particular investigative interviewing approach should be reserved for them (Beauregard & Mieczkowski, 2011; Kebbell et al., 2010).

### **LIMITATIONS**

The principal limitation of this study is that the data were collected at the beginning of the 2000s and so some results should be interpreted with the caveat that police practices have changed in Quebec since that time, or are at least in the process of revision. Indeed, scientific research has been substantial in the past three decades in the field of investigative approaches, but police practices in themselves do not evolve at the same rhythm, thus there is a pressing need for close partnerships between academia and police institutions (Snook et al., 2020). That being so, the findings presented here on perpetrators of sexual offenses remain, and they are of interest. It is clear that more recent data would help to have a more critical and precise view of the factors leading to confession in an investigative interviewing setting, but access to such data remains an inherent difficulty to this field of research rather than being specific to this study. Another limitation worth mentioning is the fact that confession was dichotomized. In doing so, it is not possible to differentiate between individuals having partially confessed from full confessors. No further information as to whether the confession concerned either the alleged acts or the suspects' motives was available. However, the analytical strategy ensured balanced comparison groups with a high degree of confidence that the integrity of the given confession (as opposed to false confessions) was preserved since all suspects were convicted after being interviewed by specialized interrogators. Moreover, the sample size of the study affects its statistical power. A larger sample would allow to include more variables as identified through bivariate analyses,

which would make it possible to draw a more complex and precise portrait of the factors promoting confession. Also, culpability and the nature of the confession were known in advance, which does not allow to speak in terms of prediction of confession in itself, but more of an association without determining causality. The ecological validity of the present study is also restricted to federal convicts (i.e., having had a sentence of two years or more) charged with the kinds of sexual offenses that attract more severe punishment than provincial cases. However, the inclusion of convicts with lesser charges could have caused bias in the factors associated with confession. The hypothesis that more confessions would be registered can be made given that the consequences of confession associated with lesser charges are less severe (e.g., length of sentence). Conversely, fewer confessions may have been observed since convicts having had less criminal antecedents have more to lose from a sexual offender label and that the help offered (e.g., treatment programs) for this client group is markedly less significant when sentences are shorter, in line with attributed resources and other issues such as iatrogenic effects of treatment for those whose short sentence reflects low recidivism risk (Government of Canada, 2021; Lowe & Willis, 2020; Schultz, 2014). A comparative study of the factors associated with confession for a sexual offense between a provincial sentence and a federal one would allow to enrich the present results. Finally, because of the relatively small sample size, men studied here have been treated as a homogenous group even though they constitute a heterogenous one (e.g., sexual infractions with or without contact). This limitation is even more important knowing that confession and its related factors differ between different subgroups of men having committed a sexual offense (Beauregard et al., 2017). A future study considering both individual, offense, situational factors and subgroups of men convicted of different types of sexual offenses would offer a substantial contribution to the field.

### CONCLUSION

Very few studies have evaluated the combination of factors enabling the prediction of confession for

sexual offenses. The present study is also one of the only to evaluate the situational factors related to the investigation and their effect on sexual offending confession allowing to define the role of investigators in the interrogation room. The present results highlight the need for an integrative approach to confession despite the marked influence of individual factors. These factors escape investigators' control even though they seem to have a direct consequence on confession. Far from disempowering them, such conclusions shed light on the role that investigators need to embrace: Learning to deal with suspects' idiosyncrasies, hence the importance of increasingly adopting relational strategies. Knowing the factors facilitating a suspect's confession allows to offer police officers more tools for conducting investigative interviews. These tools can then be used as means to reduce the burden on the victim, hence the importance of continuing research on the subject. Only then can we truly consider a victim-centered approach by rightly decentralizing the victim in the investigation process in sexual assault cases.

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# Toward a new theoretical and methodological understanding of investigative interviews



Andréanne Bergeron<sup>1</sup>, Francis Fortin<sup>1</sup> Nadine Deslauriers-Varin<sup>2</sup> <sup>1</sup>Université de Montréal

<sup>2</sup>Université Laval

Correspondence concerning this article should be addressed to: Andréanne Bergeron, C.P. 6128, succursale Centre-ville Montréal (Québec), Canada, H3C 3J7, (514) 343 7065, andreanne.bergeron.5@umontreal.ca

### **ABSTRACT**

Research on investigative interviews has provided useful knowledge about confession and the factors that influence it. However, a more dynamic understanding of such interviews is required if the field is to move forward. To help achieve this shift, we argue that the concepts used in Game Theory provide a useful way to analyze the strategies used in investigative interviews and that this theoretical framework's temporally oriented perspective can help determine the relation of particular strategies to the probability of disclosure. After looking at how previous literature has dealt with the conceptual basis of investigative interviews, we propose a new conceptual and methodological basis for their study.

This new framework could help increase scientific knowledge about the dynamic process of investigative interviews as well as having practical implications for the development of efficient strategies for information gathering by police investigators.

**Keywords**; Investigative interviews, confession, disclosure, police interrogation, Game Theory, dynamic interaction

# Toward a new theoretical and methodological understanding of investigative interviews

### **INTRODUCTION**

Previous research on investigative interviews has provided a great deal of useful knowledge for interviewers. Researchers have identified both different suspect characteristics (e.g., Beauregard et al., 2010; Cleary & Bull, 2021; Deslauriers-Varin, Lussier et al., 2011) and different interviewer strategies (e.g., Leahy-Harland and Bull, 2017; Zeng et al., 2020; Vallano et al., 2015; Wachi et al., 2014) associated with confession. They have also used an evidence-based perspective to look at which police practices are the most effective and ethical during suspect interviews (e.g., Cleary & Bull, 2019; Meissner et al., 2014; Shepherd, 2007; Walsh & Milne, 2008). Researchers' work has even led to changes in legislation, such as the PEACE model, a five-step protocol based on research findings that sets out the lawful and ethical standards to be followed in interviewing suspects and is now widely used in the United Kingdom (Bull & Soukara, 2010). Also, the work arising from research led the United Nations to form a group of researchers and practitioners specialized in investigative interviews to provide guidance on best interviewing practices. The document named Principles on Effective Interviewing for Investigations and Information Gathering, also known as the Méndez Principles, arises from the work of those experts in May 2021. The Principles recognize ill-treatment against suspects, witnesses, and victims during investigations and interrogations and propose a universal set of standards for non-coercive interviewing.

The popular image of investigative interviews represented in TV shows and movies is tainted by violence and coercion. This image has also been documented in historical writing concerning reallife investigative interviews (Leo, 1992; St-Yves and Landry, 2004). However, a great awareness was undertaken during the Second World War resulting

in considerable enhancements in interviewing methodologies across various nations. As a result, the severity of violence during interrogations was notably reduced (Leo, 1992). With the research and effort toward policy, the practice of investigative interviews has been refined and improved. The principal objective of the interview moved away from getting a confession to getting the truth and promoting human rights and the importance of developing effective interviewing techniques. Because police practices have traditionally focused on gaining confessions, past studies reflected this focus as an outcome of the investigative interview. The research community has reached a point where the focus of the studies is following this change in practices. The purpose of developing effective interview practices is to increase the amount of information provided by the suspect (Dando & Bull, 2011; Sandham et al., 2021) rather than focusing only on getting a confession2. The last two decades of research evaluated the effectiveness of a strategy based on the presence or the absence of confession in an interview in which the strategy was used. This dichotomous approach tends to oversimplify the interview process as the suspect may provide information during the interview that, while not a confession, can be used as evidence of participation in a crime. For example, computers seized in cases of online child sexual luring usually contain digital traces of conversations between the offender and the child. Confirmation that the offender is the only person who has access to the relevant computer can be seen as important evidence of guilt in Court even without formal a confession. That is one of the reasons that information gathering has become central in research over the past few years.

Researchers have looked at the association between confession and individual or criminological factors as if this relationship was stable over time, with

acknowledgment of connection with some of the aspects of a crime but instead provision of information about all aspects of the crime that are necessary to establish culpability.

<sup>&</sup>lt;sup>2</sup> Kassin and Gudjonsson (2004) define confession as "a statement admitting or acknowledging all facts necessary for conviction of a crime". Confession is thus not a simple statement of culpability or an

confession seen as the result of a fixed relationship between various factors (e.g., Tekin et al., 2015; Madon et al., 2013), making it harder to assess the dynamic aspects of human interactions (Roe, 2008). There is increasing evidence that confession is not a dichotomous event but rather a dynamic process that is influenced by contextual elements. For example, researchers have found from self-reported data that the decision to confess or to deny responsibility may change during investigative interviews (Deslauriers-Varin, Beauregard et al., 2011; Verhoeven, 2018; Walsh & Bull, 2012) and that this change may be linked to contextual factors, such as the rapport developed between interviewer and suspect, interviewer skill, or the choice of interview strategy (Cleary & Bull, 2021). As part of this shift toward a dynamic analysis of investigative interviews, some researchers have looked at the effect of gradual presentation of evidence on disclosure (Granhag et al., 2013; Hartwig et al., 2014; Luke & Granhag, 20220; Vrij & Granhag, 2012). Kelly and colleagues (2016) looked at the dynamics of cooperation and the use of strategies over the course of the interview, coding for suspect cooperation and interviewer strategies in relation to several temporal intervals, and found that cooperation varied over the three intervals considered. Cooperation was determined by the presence of cooperative utterances as opposed to resistant utterances from the suspect and was shown as varying over time.

The focus on confession may sometimes have repercussions for the ethics of interviewing. Confession has been shown to play a primary role in corroborating incriminating evidence (Inbau et al., 2001) and establishing guilt in court proceedings (Fisher & Rosen-Zvi, 2008). It is also important in resolving police investigations, leading to convictions in from 13% to 33% of cases that would normally not have been solved (Leo, 1996a; McConville, 1993). However, an emphasis on obtaining a confession can lead to interviews in which presumption of guilt is believed to justify the

use of promises, threats, or lying about the existence of evidence (Leo & Drizin, 2010), greatly increasing the risk of false confessions<sup>3</sup>.

One of the solutions to the problem of emphasis on confession is to find new ways to measure the success of investigative interviews, shifting the emphasis from confession to information gathering (Oxburgh et al., 2010) as well as on the best ways to obtain investigation relevant information (IRI). Oxburgh and Ost (2011) participate to this shift of emphasis with a methodological strategy that coded the number of IRIs provided by the suspect during an interview. The authors define an IRI as an item of information obtained during an interview that may be of relevance to the ongoing investigation, arguing that the success of an interview should be determined by the number of IRIs obtained rather than whether a suspect confesses (Oxburgh & Ost, 2011). The primary function of investigative interviews would then be seen as gathering new information as well as confirming information related to what happened, how it happened, and who did what, when, and where (Milne & Bull, 2006), contributing to an important change in understanding by shifting the focus from confession to collection of IRIs.

A shift toward dynamic methodologies requires not only that the phenomenon under study be reframed but also that measures of IRI be accompanied by a sequential analysis of events as they evolve through time. To encourage this shift, we propose introducing a theoretical perspective based on Game Theory to the study of investigative interviews. In Game Theory, decision-making is studied by looking at the interactions between two or more participants (Bicchieri, 2004). Applying this approach to the interview process makes it possible to consider not only the influence of an individual behavior on IRI but also the effect of a combination of behaviors. We then argue that time and its influence on behaviors must be part of research in this area. Finally, we discuss methodological aspects

person who is mentally unstable is at higher risk of providing a false confession.

<sup>&</sup>lt;sup>3</sup> The situational and individual factors associated with false confessions have been extensively studied (see Kassin et al., 2010 for a review). For example, a

of this new approach before concluding with the summary of the advantages of adopting this perspective.

### Game Theory applied to investigative interviews

Game Theory is a mathematical model based on rational choice theory (Morrow, 1997), which presupposes that each actor is focused on maximizing personal gain (Cornish & Clarke, 1986). The theory's origins in the field of mathematics make it a fundamental tool for understanding how resources are shared between individuals with divergent interests (Eber, 2013). A game is defined as an interaction between two or more individuals in which the gains of each participant are affected by the decisions made by the other players (Kelly, 2003). The theory is thus nested in the rational choice approach (Morrow, 1997) but also includes the idea of strategic interaction.

To illustrate the different theoretical concepts, the example of a typical investigative interview of a suspect of online sexual offending in Canada will be used throughout this paper. Investigation of online sex offenses has the advantage that digital traces on a suspect's computer can be used as evidence and investigative interviews are therefore very similar in the kind of evidence available. The amount of evidence available for presentation throughout the interview not only increases the possibility that IRIs will be provided but allows a sequential analysis of information. We consider these interviews from a two-party perspective - an interviewer tasked with obtaining valid information and a suspect whose task is to manage communication to serve their best interests.

### **Basic concepts**

Most of the literature on Game Theory uses similar concepts to explain the context of a game (see, for example, Gintis (2014), Guerrien (2010), Kelly (2003), Peters (2008), or Rasmusen (1989)). First, social interaction requires individuals who interact (Gintis,

<sup>4</sup> Police officers in Canada give a suspect the opportunity to contact an attorney before the interview begins but the attorney cannot be present during the interview. If the

2014; Kelly, 2003) - players who are participants or actors in the game. Applying this concept to a typical investigation of child exploitation in Canada, the case begins with a team of investigators collecting information about an individual who is presumed to have consumed online material dealing with child exploitation. If the suspect is arrested, an investigator, designated here as the interviewer, will meet him/her at the police station. The interaction analyzed in this paper begins at the start of the interview, with the first player being the interviewer and the second, the suspect. In Canada, only these two individuals take part in the interview, although in a different context, other players might be involved4. In some countries, such as the United States, a lawyer or another police officer may be present during the interrogation.

Second, a game contains actions (Gintis, 2014; Peters, 2008). Players must make decisions that are translated into observable behaviors. In our example, verbal communication is considered to be a social action: people speak, and their words have consequences (Garfinkel & Sacks, 2005; Wittgenstein, 1976). It is important to analyze not just the words used but also their meaning since it influences the way they are interpreted by other players (Fabbrichesi, 2016). For instance, if the interviewer (player 1) asks the suspect (player 2) a direct question about their use of child sexual exploitation material, player 2 must respond and may decide to deny the accusation, accept it, or remain silent. In this context, silence is considered to be an action. In Game Theory these actions are seen as strategic interactions: what takes place during the game is not a simple communication between two individuals but an exchange in which each player's decision (observed through behaviors) alters the objectives of the other players, whether or not they are aware of this effect (Goffman, 1966). Therefore, in our analysis of the investigative interviews, each sentence, word, and action, are coded as a behavior. It includes the action of bringing food to the suspect, showing proof of the offense, having a hockey conversation, saying that

suspect is a minor, they may be accompanied by a guardian or a lawyer.

the accomplice will be interviewed, etc. To facilitate the analysis, the "behavior" is classified in terms of the consequences they might have on the interlocutor. For example, having a hockey conversation aims to decrease the suspect's level of stress while saying that the accomplice will be interviewed aims to increase it. The objectives of the words do not have to work as intended on the suspects since their behaviors in reaction to those words or actions will also be observed and classified. Each strategy is noted for each of the participant in the interaction.

Third, the game includes a set of <u>outcomes</u> (Kelly, 2008; Rasmussen, 1989), each of which is the consequence of the players' actions. In most research, the outcome is considered to be the dependent variable and in the literature on investigative interviews this dependent variable is often a confession. However, a suspect may provide IRIs that are sufficient to validate their arrest and can lead to a conviction even in the absence of an explicit confession. IRIs could then be considered to be outcomes (dependent variables) with the other pertinent aspects of the interview seen as independent variables.

An outcome in this sense can be the result of a conscious decision by the suspect or may occur inadvertently. For example, the interviewer might tell the suspect that a computer, linked to him/her through its IP address, has clearly been shown to have been used to download child exploitation material. The suspect might then choose to confess that they had downloaded those files. The suspect's response, an outcome, is the result of the interviewer's previous action. Or, during the course of a more general discussion, the suspect might confirm that they are the only one living at a particular address and using the relevant computer. The suspect has then provided an IRI that meets the criteria for an outcome, even if they are not conscious of having done so.

Fourth, there are <u>payoffs</u> associated with each outcome. In Game Theory these are the benefits players receive after the action has been played (Rasmussen, 1989). They are profits that a player

expects to receive based on their strategies and those of the other players (Gintis, 2014). In investigative interviews, these payoffs make it possible to determine the probability that a behavior will lead to a desired outcome. For example, displaying empathy toward the suspect may have a more positive effect on the provision of IRIs than emphasizing the gravity of the actions of which the suspect has been accused (Baker-Eck & Bull, 2022; Baker-Eck et al., 2021). The concept of payoffs has been tested by Bergeron and her colleagues (2023) and demonstrated that strategies have different payoffs: some increase the probabilities of IRI and others decrease them. For example, showing a piece of evidence to a suspect has the higher payoff on suspect disclosure when compared to other strategies (Bergeron et al., 2023).

Fifth, the players have preferences regarding strategies. The strategies used by both participants during an investigative interview, observable through their behaviors - the actions taken - have an impact on the conduct of the interview (Rasmussen, 1989). Static variables, such as personality traits, age, gender, or physical appearance, also influence the interaction (Baker et al., 1990; Haines & Leonard, 2007) and are reflected in players' preferences (Gintis, 2014; Goffman, 1969): players will tend to choose a certain set of strategies and tend to use the same strategies again. Bergeron and her colleagues (under review), identify five different profiles of suspects and confirms the idea that strategies are heterogenous among suspects and can be grouped into a general set of strategies. Moreover, the findings of this study show that the preferences of the suspect in terms of behavior and strategies during the interview are very stable over time. This suggests that certain interviewer strategies will then be more effective with particular suspects and can be chosen and changed in response to the strategies used by suspects. This leads to an important aspect of the theory - that decision-making is rational.

### Rationality

Game Theory is an extension of rational choice theory, and the rationality of actors is therefore central (Gintis, 2014). Rationality is often defined as acting to achieve objectives (e.g., Gintis, 2014; Harrington, 2009). In a game, the objectives are to maximize payoffs. Maximization of gains is not necessarily egoistically self-oriented: there is nothing necessarily irrational about being altruistic. The only element rationality presupposes is that a decision is made as a way to achieve a particular objective rather than randomly.

In a game, each decision is made among a defined set of choices, known by the players. In investigative interviews, participants make choices as rational beings in accordance with their preferences (Boudon & Bourricaud, 2002). Goffman points out that "we can say that anyone who hides something away and then keeps his lips sealed, or reveals something through communication that he had theretofore hidden, does so because he feels his interests can be furthered in this way" (Goffman, 1969; p. 36). An individual's choices may sometimes appear irrational because they are different from the choices we would have made in the same situation. For instance, from a purely mathematical perspective, a suspect who knows he or she is guilty should logically remain silent during an investigative interview because there is nothing they could say that could change the situation. In reality, however, such interviews are part of a very different game in which the suspect may not always remain silent or try to deny the accusations. It might be a rational decision for a player to confess in the first minutes of an interview, without knowing the amount of evidence against him/her, if they believe that this decision will help assuage strong feelings of guilt. Rationality involves making decisions that meet individual interests given the knowledge, interests, and experiences involved in a given situation.

### Inherent elements of the Game Theory

There are several implied notions of Game Theory in our work. First, Game Theory suggests observing how players proceed when placed in a real-time social situation (Schmidt, 2001). The timeframe used in the empirical work should consider a continuous timeline that renders adequately the line of actions.

This notion points toward an emphasis on what is happening during the interview rather than on the influence of external factors. Schmidt (2001) reports that in individual decision theory, a decision maker faces an external world that affects the consequences of his actions. This outside world is somehow considered unimportant in Game Theory. The knowledge of the game by the players is considered much more central to the analysis of social interaction since it is never independent of the knowledge of the other players (Schmidt, 2001). This justifies the suggested shift from the emphasis of the literature on external factors associated with confession towards the observable behaviors of the interview.

Intertwined with the first two implied notions, the observability of behaviors is another important aspect. Binmore (1990) indicates that a player learns from what another player thinks, by observing how he has played, and this observation will be useful in predicting how he will play next. This will influence players' choices in their decision-making. The observation of behavior must be at the center of the analyzes.

### The game elements of investigative interviews

The literature on Game Theory discusses several modes of play or situations involving two participants, two of which are particularly relevant to the analysis of the investigative interview: noncooperation and asymmetrical levels of information. Work on Game Theory often discusses cooperative situations versus non-cooperative (or competitive) situations (e.g., Rasmussen, 1989). In cooperative situations, each player agrees to work with the other players to achieve a common goal while also trying to prevent other participants from losing, for example, by making sure that everyone wins the maximum amount of money possible. In a cooperative situation, a player who deviates from the agreement and chooses a strategy that benefits only him/herself will often be severely punished by other players, who will then choose strategies to make him/her lose: "In fact, cooperation is rather a balance of terror: it only takes place if the two players choose this very uncomfortable strategy"

(Guerrien, 2002, p. 73). Risks and uncertainty are part of both cooperative and non-cooperative game situations, the difference being that noncooperative situations do not involve a prior agreement between players but are part of a competitive social interaction in which there will be winners and losers (Guerrien, 2002). With this element in mind, an investigative interview is therefore always an uncooperative situation. On the one hand, there is most likely no prior agreement to cooperate as suspects might want to protect their legal freedom. On the other hand, even if the suspect is totally cooperative and agrees to tell everything the investigator needs to know, the noncooperative game situation applies as one of the players can choose, at any time, to stop collaborating or be well-meaning and honest with their interlocutor. The cooperative game exists only if it is identified following an analysis of an interaction which took place in the past. Otherwise, for the players in the interaction, the situation can change at any time and become a non-cooperative game.

The second game mode relevant to investigative interviewing concerns the level of information held by the participants. A game involves important information, such as the strategies that can be used or have already been used. In a situation where all participants have the same information about the game (perfect or complete information), the players are aware not only of their own strategies and the associated payoffs but also of the strategies and payoffs of the other players (Kelly, 2003). Having this information does not mean that a player knows what actions an opponent may make - they can only try to anticipate them. In a game with asymmetrical information, players are aware that they can choose strategies but do not know the payoffs associated with these strategies and may not know the strategies available to the other players (Kelly, 2003). For example, a suspect knows they are under arrest and that the interview is being conducted by police. If the suspect is not knowledgeable about police investigative strategies, they might fail to see the importance of a conversation about the last hockey game watched, seeing it as harmless. However, while talking about hockey, the suspect might

confirm that they watched the game alone, at home, on a particular night. As digital traces on the suspect's computer tell the interviewer when child sexual exploitation material was downloaded and at which address, this can suggest that the suspect was alone that night, and that therefore no one else could have downloaded the material. The suspect's information did not involve knowledge about this strategy or the evidence and was therefore asymmetrical in comparison with the informer's knowledge. An investigative interview is a game in which the relevant information is not equally available to all players. The interviewer is not only aware of all the information the police have about the case, including available evidence but, based on professional experience, is knowledgeable about the strategies a suspect may use to defend him/herself. The suspect is both unaware of the evidence found by the police and unlikely to know the strategies used by their interlocutor. The asymmetry of information between the suspect and the interviewer have been recognized in the literature (Cleary & Bull, 2019; Sivasubramaniam & Heuer, 2012).

Some research on police/civilian interactions has made implicit use of Game Theory. While researchers do not discuss the theory directly, the vocabulary they use, such as describing the interaction as a "game" or speaking of "equilibrium of outputs", is very similar to that used in Game Theory (e.g., Brent & Sykes, 1979; Sacks, 1972). The same pattern can be found in research on investigative interviews (e.g., David, et al., 2017; Gordon & Fleisher, 2011; Leo, 1996a; Leo 2009; May et al., 2017; Shuy, 1998; Simon, 1991). Kelly and colleagues (2016) go even further and adopt the vocabulary of Game Theory by suggesting that some types of strategies lead to a zero-sum game, in which the interviewer wins, and the suspect loses. Other researchers have used Game Theory more explicitly. For instance, Guo and Chen (2014) used the concepts in the Prisoner's Dilemma, the Chicken Game, and Path-Dependence, models derived from Game Theory, to analyze transcripts of taped recordings of police interrogations in China and conclude that the Chicken Game, in which the first person to back down in a confrontation loses, is a

useful model for analyzing the interaction between the interviewer and the suspect. Finally, Schiemann (2016), while not explicitly referencing police interviewing, uses Game Theory to explain the relationship between confession and the use of torture, arguing that the theory makes it possible to show that torture is ineffective even if it often leads to confession: for him, while confession is often defined as the payoff, Game Theory shows that the payoff should instead be defined as obtaining truthful information, a payoff not achieved through torture.

To summarize the different concepts, in a game the participants take actions that lead to outcomes that have different payoffs. The actions are chosen according to players' preferences and are considered to be rational. Game Theory offers a useful perspective for understanding investigative interviews by analyzing the interaction between the two individuals as if they were players. The game is non-cooperative, and the information known by participants is asymmetrical. Using the concepts of Game Theory demonstrates the need to consider the interaction between the two players involved in an investigative interview as dynamic and to understand the effects of the actions of each player on outcomes. However, while a few studies have used the vocabulary of Game Theory, only one study, known to the authors, in the field of torture has used these concepts to understand a phenomenon (Schiemann, 2016). No study to our knowledge has applied the concepts proposed by the theory to look at investigative interviews.

### Dynamic analysis of investigative interviews

Some of the previous research on investigative interviews has tended to emphasize the association between confession and individual, criminological, or contextual factors, suggesting that these relationships are stable over time, and to focus on the presence or absence of confession, a static approach that does not take into account behaviors and events that are transitory and dynamic (Roe, 2008). The notion of interaction in investigative interviews can be found in qualitative and exploratory oriented research such as on discourse

analysis (Carter, 2011; Haworth, 2013; Heydon, 2005; Komter, 2003; Stokoe & Edwards, 2008).

Conversation analytic research on interrogation focuses on the interrogation as a speech event and the publicly observable arrangements and fit of participants' actions as the main object of inquiry (Carter, 2011). This perspective and method allow considering interaction but might be seen as contributing to a static view of the object under study. More recently, however, some researchers have shifted toward a more dynamic analysis of investigative interviews, the first step in developing different strategies of analysis that will lead to a more sophisticated understanding of suspect disclosure and confession.

Some researchers have looked at participant strategies and how these change during the course of an interview (Håkansson, 2019; Luke & Granhag, 2020). Others have analyzed the effect of the same variable, such as presentation of evidence, at different times during an interview (Clemens et al., 2020; Granhag et al., 2013; Hartwig et al., 2014; Vrij & Granhag, 2012; Walsh & Bull, 2015), looking at both the strategic use of evidence (SUE) and Shift-Of-Strategy (SoS) approaches. These approaches are based on the idea that how the interviewer presents information about the evidence available will influence suspects strategies (i.e., their behavior and communication in the interview setting), with suspects found to adapt their statements in relation to their perception of the interviewer's knowledge (Hartwig et al., 2014; Luke et al., 2014; Sorochinski et al., 2014).

Interviews have also been analyzed in terms of actions within temporal segments, which makes it possible to identify changes in behavior and strategy over the course of an interview. Pearse and Gudjonsson (1999) analyzed 18 police interviews in the United Kingdom by dividing the interviews into 5-minute segments and charting the appearance and timing of 39 interview strategies. Their findings showed that strategies can change over the course of an interview, pointing toward the need to understand interviews as a dynamic interaction. Bull and Soukara (2010) adopted the idea of 5-minute segments in their study of which strategies were

most likely to lead to confession. Both these studies, however, analyzed only interviews that ended with a confession. In contrast, Kelly and colleagues (2016) and Leahy-Harland and Bull (2017) used the idea of five-minute segments to analyze interviews that involved either confession or continued denial. These studies showed that rapport and relationship building are positively associated with disclosure, while strategies aimed at increasing the suspect's level of anxiety - such as those that use negative questioning (e.g., suggestive questions), describe victim trauma, or involve confrontational strategies (e.g., asserting authority) – are associated with the absence of disclosure. Kelly and colleagues (2016) were able to show that the negative effect of certain strategies on disclosure can last for up to 15 minutes.

A third strategy is to use a model that highlights the dynamic aspects of the decision-making process and the effect of time on these decisions. Yang and colleagues (2017) argue that including temporal effects in the model makes it possible to account for situations in which suspect decisions change during the course of an interview in relation to previous behaviors. Their findings show that participants were more likely to change from denial to confession when they believed that the proximal outcome (limiting the length of the interview, decreasing the amount of anxiety felt) outweighed the negative aspects of the distal outcome (conviction and punishment). Cabell and colleagues (2020) also considered the impact of time on guilty and innocent individuals on their decision to confess.

Looking at sequences of behaviors and timelines should be an important part of research in this area. However, theory-building and research that take temporal aspects into account require overcoming the conceptual hurdle of static thinking inherent in the concept of the variable (Roe, 2008). Researchers must start thinking of human behavior as something that happens rather than as something that is (Roe, 2008). Game Theory does not explicitly include the idea of time in strategic interactions, but the dynamic aspect of a game is underlined by introducing the idea of time. Time is a fundamental

element in strategies used in interactions between two parties (Lee & Liebenau, 1999). A dynamic analysis of interactions such as investigative interviews must therefore consider not only the influence of participants on each other but the timeline on which this interaction occurs, both in observing and interpreting 'what happens', as well as in generating new concepts and hypotheses.

### Adding time to methodology

Since time plays a prominent role in everyday life, the tendency to ignore it when developing research methodologies is somewhat paradoxical and can lead to an unintentional distortion of the subject being studied (Jones, 2000). Many factors might explain why temporal aspects are not integrated into methodology: research conventions (such as an emphasis on short-term experiments), the complexity of the phenomena, and the lack of relevant theories and related methodologies (Ancona et al., 2001). The failure to recognize the importance of time when developing methodologies has been mentioned by scholars in fields such as organizational research (Ployhart et al., 2002), education (Barbera et al., 2015), and psychology (Roe, 2008) and scholars from different fields have begun to advocate for an enhanced consideration of time and a dynamic understanding of the phenomenon being studied. Roe (2008) notes that the term dynamic refers to the overall shape of the phenomenon as it unfolds over time and Lee and Liebenau (1999) discuss how interaction strategies involve time as a fundamental dimension. Eaton (2004), discussing the duration of emotional responses, calls for more time-based research that will make it possible to create a fully dynamic theory of human emotion. Mathieu and Schulze (2006) propose a time-based theory of team behaviors in which team attributes are recognized as influencing episodic transitions, interpersonal processes, and performance. Avolio (2007), in an article on leadership theory, argues that understanding the dynamic interplay between leaders and followers necessitates taking contextual changes into account. The more dynamic methodologies discussed in the previous section on research in investigative

interviews also acknowledge a dynamic, and therefore temporal, perspective.

Some researchers have approached the problem directly - Ekman and colleagues (2012) describe social interaction as a fluid and changing process whose analysis must include all participants and take place in real time, without interruption. While some researchers have begun to use nonlinear regressions and regressions with interaction terms as well as multiple indicator models, structural equation modeling, time series analysis, and hierarchical linear models (Stolzenberg, 2003), the models in most studies consider the subject at discrete times, even if the subject is a process that is continuously evolving. This not only ignores an important characteristic but can make it difficult to compare research results (van Montfort et al., 2018): research tends to focus on estimated parameters for the intervals being studied and not only can these parameters differ, but the lack of a continuous timeline can lead researchers to miss important material - humans do not cease to exist between parameters (Bergstrom & Nowman, 2007). The idea of temporality is central to the analysis of data focused on interactions and has to be taken into account in both data collection and statistical analysis. Observing the effect of time on behavior requires that it be considered as an independent variable, like other variables in a study. Understanding temporal relationships requires going beyond simple ideas of simultaneity, sequence, or causality.

Discussions of Game Theory often implicitly recognize the importance of time in their presentation of interactions as evolving, but the idea of time is seldom discussed directly. That is why we present the concept of time as being an important element to discuss and which should be central in the shift of methodologies on investigative interviewing. In order to put time at the center of the analysis, it must be integrated in the equation. For example, Kelly and colleagues (2016) predicted the effect of a behavior on the suspect cooperation by creating several lagged versions of each behavior and included them in their logistic regression model. It allows documenting the lasting effect of the

behavior in time and not only the strength of the effect of the behavior on cooperation. Another example can be observed in Bergeron and colleagues' study (2023) who included the amount of time between the different behaviors and IRI as a variable in their generalized linear mixed models which help predict the amount of time before the behavior increases or decreases the presence of IRI. In other words, behavior happens, but their effect might not be immediate or lagged and they might have a concise effect or last in time. To study behaviors of the suspect, and more particularly the positive or negative impact of certain interviewer's strategies on the level of collaboration of the suspect, time must be considered in the equation.

### **Ideal Data Collection Setting for the Perspective**

When researchers and practitioners in the field of police interviews were asked for their ideas on urgent issues and prospects for reforming interrogation practices in Canada and the United States, Leo argued (Snook et al., 2021) that the most important reform would involve ensuring that a full electronic recording of every interview exists to provide a factual (i.e., objective, comprehensive, and reviewable) record of what occurred. Such recordings would not only be important in the judicial process but could provide valuable data for research. However, even when they exist, they are often difficult to access and some researchers have therefore used questionnaires or interviews as a way to access investigators' perceptions of the interview process and the techniques used (e.g., Wachi et al., 2014; Mueller et al., 2015), while others have interviewed inmates (e.g., Deslauriers-Varin, Beauregard, et al., 2011; Snook et al., 2015) or conducted studies using samples drawn from those not in the judicial system, such as university students (e.g., Tekin et al., 2015; Tekin et al., 2016; Yang et al., 2015). It is, however, difficult to create a face-to-face interaction that adequately captures the elements in investigative interviews and impossible to be certain that the behavior described or recreated by these participants captures the actual experience during an interrogation. The observation of real investigative interviews is therefore the best source of data (Granhag, 2021;

Kleinman, 2021). Conditions such as the objective of the interview, the context, the environment, and the roles of the two different stakeholders can be kept constant and research observations do not change the behavior of the subjects or introduce observational bias as the interviews are recorded for reasons other than research. Actions linked to various decisions can be analyzed through a sample of individuals who are in a very similar context.

Researchers analyzing investigative interviews have done substantial work in outlining the different strategies used by police interviewers in investigative interviews<sup>5</sup>. However, the interviewer is not the only player and the behaviors of both players must be taken into account (Haworth, 2006). As there is very little research on strategies used by the suspect in such interviews (e.g., Feld, 2013; Hines et al., 2010; Moston et al., 2009), it is helpful to look at the literature on interviewer strategies in other fields, such as job interviews, communications in psychology or psychosocial meetings, or interpersonal communications.

To assess the strategic interaction of both participants, all behaviors must be noted, which requires developing an extensive coding grid to include all behaviors related to strategic interaction. Using the dynamic perspective proposed in this paper requires adapting the research tools presently available. One possibility is to use Observer XT©. This software, which has been developed through the last 25 years, makes it possible to program a codification grid directly into the software and then code and analyze behaviors as they relate to a video timeline. When a behavior is identified by the coder, a click records it and the exact moment it occurred. This data is automatically transferred to a database, making it possible to collect a large amount of behavioral, verbal, and physiological data that is temporally linked.

Contribution of the Game Theory to Investigative Interviewing Research

### Taking into account all players and their roles

The thesis presented in this paper allowed to set a theoretical and methodological basis to the study of asymmetrical interaction and, more particularly, the context of investigative interviewing. The Game Theory perspective is used to consider the interview as a social interaction influenced by the strategies of each participant. Even with the reduction of violence during investigative interviews, this social interaction might be seen as coercive per se. In the ruling on Oregon v. Mathiason (1977), the U.S. Supreme Court stated that:

"[a]ny interview of one suspected of a crime by a police officer will have coercive aspects to it, simply by virtue of the fact that the police officer is part of a law enforcement system which may ultimately cause the suspect to be charged with a crime."

(Oregon v. Mathiason, 1977).

The investigative interview might therefore be seen as an institutional and interactional manifestation of social control depicted as a "battle" between police and suspects (Holdaway & Rock, 1998). This means that each aspect of this social interaction is shadowed by a power imbalance (Ainsworth, 2008; Garfinkel, 1963). This imbalance is covered by Game Theory with the notion of the asymmetrical information game. Both players know they are in a game and choose strategies, but at least one of them does not know the associated payoffs for their strategies (Kelly, 2003). The suspects know they are under arrest and being interviewed by police but most likely do not know the strategies of their interlocutor. The only informed player in the game is the interviewer who knows the strategies of the suspect but also, has all the information related to the case in hand, including the evidence gathered at this point.

This asymmetry, which can be applied to any policecivilian encounters, creates a situation in which the players have different strategies according to their

<sup>&</sup>lt;sup>5</sup> Kelly and colleagues (2013) present an in-depth analysis of the different techniques and propose an interesting taxonomy to group them.

roles. The strategies observed by the researchers are therefore different depending on the player who is analyzed. Different tools must be used to observe the behaviors in their contexts. Categories of behaviors for the investigators have proven to be efficient in previous studies (e.g., Kelly et al., 2013). There is, however, no clear categories of behaviors for the suspect and a great deal of work have to be done in this sense.

Another related aspect that is taken into consideration when adopting this perspective is the players' preferences. Players do not act the same way, even if they have the same role. For example, all suspects do not behave similarly for many reasons like personalities, experiences, previous events, etc. Players will show their preferred strategies through their behaviors and the difference between each of them must be included in the comprehension of the interaction.

This perspective forces the researcher to take into account all the players, their specific roles, and also the fact that players with the same role, will have different preferences. This allows a deeper understanding of the interaction.

### The centrality of time in research

The thesis also gives particular attention to the complex notion of time and proposes a continuous timeline evaluation of the interaction. This method leads to the analysis of two aspects of behavior from a temporal perspective. The first is being able to identify given behaviors and their temporal relationship to other behaviors. This makes it possible, for example, to identify behaviors that are more likely to be followed by IRI as well as their durational effect. The impact of time on behavior is the underlying objective of introducing time as central in research on investigative interviews. It was made clear that the behavior of one participant has an impact on the behavior of the other participant. This impact might be immediate or not and may have a lasting effect or not. Kelly and colleagues (2016) analyzed recordings of 29 interrogations of 21 adult criminal suspects. They divided the interviews in intervals of 5 minutes

leading to a total of 519 intervals. This methodology allowed them to see the lasting effect of the behavior in time. The authors found that the negative effect of certain strategies, such as confrontational behaviors, can last for up to 15 minutes.

The second is recognizing that the effect of behaviors on the dependent variable, in this case provision of IRI, may be delayed. For example, giving food to suspects at the beginning of the interview contributes to ensuring their well-being. Such behavior may not be immediately followed by disclosure of an IRI but may increase the chance of disclosure later in the interview. Bergeron and colleagues (2023) have shown that the effect of a given strategy or behavior is not always immediately apparent. For example, a collaborative strategy from the interviewer seems to have a positive influence on the probability of disclosure after approximately 60 minutes while the disclosure of evidence has an almost immediate impact on IRI.

The third time aspect is considering behavior that lasts for a period of time: instead of happening at one point in time, such behavior has a starting point and an ending point. For example, a suspect might begin to cry. This behavior might last for a few seconds or longer. The duration of a behavior can have an effect on other players. A study by Cleary (2014), looked at the "flow" of people present in an investigative interviewing room during interviews with juveniles. The author recorded the duration of everyone's presence and found that youth spent on average 13 minutes alone in the interrogation room and that in only 26.3% of cases were all individuals present at the start of the interrogation present throughout the entire event. However, the author did not observe the effect of duration on suspect collaboration, but this method presents the possibility to account for the impact of duration.

Adding a temporal perspective to Game Theory offers a myriad of possibilities for analyzing the different aspects of investigative interviews. The presence of behavior on a timeline, delayed effects, and the effect of durational behavior are examples of areas that could be analyzed in future research in

the field. Integrating the idea of time into the study of investigative interviews will not only help increase our understanding of them but help develop effective interviewing practices.

### The economy of behaviors

The fundamental assumption of Game Theory is that interaction is a process in which the actions of each participant at each point in time are, at least in part, contingent upon actions that have occurred in the past. Therefore, not only the immediately preceding behavior but the cumulative weight of preceding behaviors is important. If investigative interviews are looked at as a game in which players take many turns, Game Theory suggests that this repeated interaction provides an opportunity for cumulative experiences. For example, players can collect experiences of trustworthy behavior and establish norms of cooperation and reciprocity (Ostrom, 2003; Tarrant et al., 2010). Research shows that the effects of multiple interrogation techniques can accumulate and continually influence suspects' evaluations of available choices (Yang et al., 2017). Cabell and colleagues (2020) also show that the effects of the techniques used by the interviewer are expected to accumulate. In general, stochastic processes state that the probability of a particular state of a variable at Time "T" will depend on the state of all the variables of the system at all previous times (Greenberg, 1979). In other words, the system remembers and is influenced by its past. This perspective allows adding up the chain of behavior and better understanding the outcome of each chain. When applied to investigative interviews, Game Theory involves the dynamic analysis of actions and outcomes rather than words. Using its mathematical roots allows using quantitative methods that have something of value to offer to research. The formal procedures of mathematics offered by Game Theory allow for patterns to be discerned that may not be evident from simple inspection of the data: It enables rigorous testing of hypotheses, and in the case of theoretical work, to facilitate the deduction of consequences from assumptions (Greenberg, 1979).

When applied to investigative interviews, Game Theory involves the dynamic analysis of actions and outcomes rather than words like it is the case in conversation analysis, for example. Game Theory and its mathematical roots are rather grounded in a quantitative approach that add value to investigative interviewing field of research. The formal procedures of mathematics offered by Game Theory allow for the identification of patterns that may not be evident with a simple inspection of the data: It enables rigorous testing of hypotheses, and, in the case of theoretical work, to facilitates the deduction of consequences from assumptions (Greenberg, 1979). Those changes to the methodology will create a body of research that allows the development of practical tools for police investigators on the matter of the type of strategies to use according to the effectiveness of a strategy, to the amount of time they have, and to the type of suspect they are working with.

### **CONCLUSION**

Research on investigative interviews has increased substantially over the past three decades (see Deslauriers-Varin, 2022, for a review) and has provided information about the ethical, sciencebased practices that could be integrated into these interviews (e.g., Clarke et al., 2011; Meissner et al., 2014; Milne & Bull, 2003; Shepherd, 2007; Walsh & Milne, 2008), leading to meaningful reforms in the practice of investigative interviewing. The existing body of literature has a focused on correlations between confession and the factors that may influence it as if these factors were stable over time (e.g., Tekin et al., 2015; Madon et al., 2013), making it difficult to acknowledge that suspect interviews are not linear (e.g., Kelly et al., 2016) but should be considered in terms of the dynamic use of strategies that involve collaboration and resistance and can change during different phases of an interview (Snook et al., 2021). Introducing the concepts used in Game Theory makes it possible to analyze these strategies more effectively. Participants can be understood as players who make rational decisions about actions that lead to outcomes with different payoffs according to their preferences. Such a perspective makes it possible to build on the

knowledge of study on individual and criminological factors associated with confession and consider the dynamic elements involved in interactions between a suspect and a police officer.

This paper provided a conceptual and methodological introduction to the study of investigative interviews from the perspective of Game Theory which attempt to go deeper into the dynamic concepts of the phenomenon. This theory is not intended to trivialize the investigative interview process or impacts on suspects, but rather to contribute a new/additional framework for understanding and researching investigative interviews. Most recent studies have proposed to use a specific coding frame in which interviews are broken down into time segments (e.g., 5-min) in order to account for the passage of time and its impact on behavior. The researchers proceed by dichotomizing the presence or absence of confession among the segments. We propose to go further in this direction by considering a continuous timeline (analysis by second instead of segments of few minutes) and to considerer IRI rather than the presence or absence of confession. Introducing this temporally oriented perspective makes it possible to determine the probability that certain strategies will be effective in leading a suspect to provide IRI and whether these strategies can be expected to be effective immediately or only after some time has elapsed. Such information will not only increase scientific knowledge about the dynamic process that takes place in an investigative interview but might help investigators develop the most efficient strategies for interviewing suspects. Although an emphasis is made in this paper about IRI as the dependent variable, it is possible to consider any other behavior as the dependent variable. For example, if the interviewer shows aggressive behaviors, like raising his voice, this behavior can be examined as the dependent variable, and the impact of other actions on this behavior will be observed. More precisely, one might observe that an aggressive behavior from the interviewer is preceded by denial from the suspect. This would help explain what triggers this particular interviewer's behavior. Understanding what influences each behavior of the suspect but also of

the interviewer could be used in police training in order to recognize situations and act accordingly. In other words, any behavior may be observed in relation to other to deepen the knowledge on investigative interview, not only IRI.

An implicit notion of the Game Theory that raises a limit is the emphasis on observable behaviors. Schmidt (2001) reports that in individual decision theory, a decision maker faces an external world that affects the consequences of his actions. The focus is therefore on the action of the individual during the interview. External factors (e.g., like the criminal history, past encounters with the police) are not directly taken into consideration in Game Theory. Even if a complete model of disclosure would be developed following the theory perspective, there will still be some elements that are not considered and could influence the phenomenon. Overall, we consider that the perspective brings more advantages to the study of investigative interviews than limitations.

The theory presents a new conceptualization of investigative interviews that allows deepening the knowledge of this interaction. By representing social situations as a game, it allows recognizing that choices have consequences and that these have different impact levels on players' actions. It allows recognizing the asymmetry of the roles and of the information present in the interview in order to properly account for the strategies specific to each of the roles. It allows recognizing the preferences of the players and offer the possibly to study how it is possible to adapt behaviors in relation to the preferences of our interlocutor. The analysis of the game thus aims to facilitate the understanding of the problems and realities encountered by the players and possibly to provide them with avenues for solving them.

We should not expect an explanatory theory of collaboration in the context of an investigative interview but rather a methodological theory that allows us to understand and study, through its conceptual framework, the interaction between two individuals. Instead of trying to extract a problem in order to find its solution, it is a question of

extracting a protocol of rules whose concrete application will create a solution that will then have to be analyzed.

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# The association between offence type and open-ended question usage in simulated police interviews



Hamida Zekiroski <sup>1</sup>, Sonja P. Brubacher <sup>1</sup>, Martine B. Powell <sup>1</sup> <sup>1</sup>Centre for Investigative Interviewing, Griffith Criminology Institute, Griffith University

This research was conducted as part of the dissertation of HZ. The authors are grateful to the police organisation that participated in the research and would like to thank and acknowledge Rachel Gerrie for her work in the pilot project. Correspondence concerning this article should be addressed to Sonja P. Brubacher, Centre for Investigative Interviewing, Griffith Criminology Institute, Griffith University, 176 Messines Ridge Road, Mount Gravatt, 4122, QLD, Australia. E-mail address: s.brubacher@griffith.edu.au

# **ABSTRACT**

Police respond to a variety of situations on a daily basis. A major component of their work is to collect evidence from witnesses (and other sources) to make decisions about whether further investigation is warranted or if an immediate charge should be laid. While it is well established that the use of openended questions is the best way to elicit verbal evidence from people, it is not known the extent to which an interview would be comprised of openended questions (versus other types) across different situations. In the present study we examined the impact of offence type on police officers' (N = 55) use of open-ended questions at various levels of skill acquisition (i.e., stages of training) under controlled conditions. Results

showed that offence type does impact adherence to open-ended questioning and open-ended question usage increased as a result of training. Some offence types, even at the conclusion of training, were more amenable to the use of open-ended questions compared to others. The findings have implications for researchers who evaluate the efficacy of training programs, individuals who design interview training, and organisations who might assess trainees on their open-ended question usage at various training intervals.

**Keywords:** best-practice interviewing, police, questioning, interview training, offence-type

# The association between offence type and open-ended question usage in simulated police interviews

# **INTRODUCTION**

Police routinely deal with a diverse range of matters. Their responsibilities include attending accidents and critical incidents, resolving disputes, and investigating a multitude of offences. On any given day, an officer might attend a minor theft case and then be called to a more serious matter later (Greenberg, 2017). Regardless of the job, a major component of police work is the collection of evidence from witnesses (and other sources) to make decisions about whether further investigation is warranted or if an immediate charge should be laid. For some offences (e.g., stalking, theft), decisions to charge rely heavily on physical evidence (i.e., phone records, CCTV). Verbal statements, however, are also critical (ACPO, 2009). In fact, investigative interviews with complainants, witnesses, and suspects can be fundamental in any type of investigation (Milne & Bull, 1999). Given the importance of investigative interviewing in police work, officers need to engage in specialised training programs to ensure their interviews are done in a way that is consistent with international codes of conduct, while maximising the amount of useful evidential details.

In relation to the type of interview questions that police officers should ask in eliciting verbal evidence, there are well established guidelines of best practice. Decades of research on eyewitness testimony has led to the conclusion that nonleading open-ended questions (e.g., "Tell me everything that happened"), which elicit narrative detail, are the most beneficial. This is especially so for vulnerable witnesses such as children or people with a cognitive impairment (e.g., Brown & Lamb, 2015; La Rooy et al., 2015; Newlin et al., 2015; Vrij et al., 2014). Open-ended questions are deemed so important that they are used in evaluation studies as a primary benchmark of good interviewer performance (e.g., MacDonald et al., 2017; Snook & Keating, 2011; see Akca et al., 2021, for review). Definitions of open-ended questions vary, but they

are generally defined as questions that invite an elaborate response without dictating what specific information is required from the respondent (Powell & Snow, 2007). Among many known benefits, openended questions elicit the most accurate and detailed responses because interviewees are given the flexibility to report what they remember in their own words with little opportunity for the interviewer to influence the content of the response (Dent & Stephenson, 1979; Fisher & Geiselman, 1992).

While open-ended questions are critical in police investigations as a whole, their importance may waver across individual offence types (Gehl & Plecas, 2017). For example, open-ended questions may be less critical in offences where security footage is available such as shoplifting matters. In contrast, open-ended questions may be more critical in matters where there is a lack of physical or corroborating evidence like sexual assault, (Westera & Kebbel, 2014) or where evidence is ambiguous or conflicting and thus individuals' accounts of what happened are paramount (Gehl & Plecas, 2017). Contextual factors also need to be considered. For example, an officer at the site of a traffic accident (where vehicles need to be moved on quickly) may not prioritise narrative detail compared to interviewing a victim of family violence where the contextual and historical factors are critical for understanding what happened and assessing risk of future harm (Chenier et al., 2021). Nonetheless, it could be argued that open-ended questions need to be always 'on hand' in an officer's tool kit. Even for seemingly low-level offence types with an abundance of physical evidence, narrative detail may be needed to understand how events transpired, or to understand the full extent of unlawful behaviour.

Overall, it seems that some discretion is warranted on the part of individual officers to decide how much to rely on open-ended questions when investigating a specific offence. This discretion is not openly acknowledged or discussed in the literature on investigative interviewing, yet it has strong implications for researchers, police executives and trainers. First, for interviewer evaluation research where pre- versus posttraining interviewing is measured against bestpractice guidelines, researchers rely on standardised measures of interviewing performance in simulated or field interviews (e.g., Benson & Powell, 2015; MacDonald et al., 2017). Yet, some interviewers may appear better skilled by virtue of the scenario on which they are assessed; this could have implications for interpreting post-training results. Second, if there are inherent preconceptions among officers around when open-ended questions should and should not be used, this needs to be openly addressed in training programs so that any misunderstandings can be corrected. Training programs currently include little dialogue around the operationalisation of open-ended questions apart from providing brief (and sometimes inconsistent) definitions of what these questions are (Westera et al., 2020). We know from the broader evaluation literature that if implementation gaps are not assessed at the point of service delivery (as opposed to training), there can be detrimental consequences for communities that are unforeseen by policy developers (e.g., Lipsky, 1980; Hill & Hupe, 2002).

In summary, an examination of the association between offence type and adherence to open-ended questions is needed to fully understand the quality and nature of police interview performance in the field, and to consider whether and how further improvement is warranted. For the research findings to have integrity, however, offence type needs to be examined under tightly controlled conditions. Currently there has been no direct examination of offence type per se. Most research has focused on the quality of training on interviewer performance (as opposed to contextual and case-related factors) because training accounts for most of the variability and until recently little was known about how to make training maximally effective (Benson & Powell 2015; Lamb, 2016).

To address the current gap in the literature, we examined the impact of offence type on interviewing

at various levels of skill acquisition (i.e., stages of training). We reasoned that if there is a strong effect of offence type, it should be evident at all levels. However, the strength of any effect of offence type might differ depending on the officers' levels of competency. If interviewers do not already have open-ended questions in their repertoire (i.e., they are performing near floor), the offence type will have little impact on their tendency to produce open-ended questions. Differences in use of open-ended questions across offence types may only emerge after officers have learned to use them and are permitted flexibility in how they conduct a (simulated) interview.

Our first prediction was that differences would emerge across offence types (regardless of training), because some scenarios may not lend themselves well to open-ended questioning even when interviewers can maintain these questions. In addition, some offences (e.g., family violence) contain more detail than other offences (e.g., traffic incidents) and therefore may be more prone to eliciting a longer narrative. The length of narratives given by the mock interview actors in the current study will be controlled; thus, the research will yield important insight into any expectations and perceptions officers have about how much information is available to elicit from interviewees. Our second prediction was that the use of openended questions would increase as officers progressed through the training, but this would be more evident for some offence types than others.

# **METHOD**

# **Participants**

The study was approved by the Human Research Ethics Committee at [blinded] University, as well as the executives of the police organisation. The sample comprised two cohorts totaling 55 police officers at varying levels of constable status (36 male, 19 female; from a single Australian jurisdiction) who were completing an online interview training program (described below) during 2018 (Cohort 1, 35 participants) and 2019 (Cohort 2, 20 participants). Three additional officers had dropped out after

commencing the program due to a change in position or unexpected leave.

Engagement in mock (simulated) interviews was part of the training program. All officers were made aware that their course data including mock interviews would be used for research and evaluation. They could choose to withdraw their data without penalty, but none did.

## **Materials and Procedure**

Course structure and content. The training took approximately 6-8 weeks to complete and consisted of 11 modules covering a wide variety of topics: defining various question types, human memory, eliciting a disclosure, how to interview about repeated abuse, identifying relevant legislation, and offence types. An interview protocol, similar in structure to that described by Powell and Brubacher (2020) was introduced. The modules were predominantly delivered over a secure web-based platform. The course was based on a highly effective training program promoting long-term change in interviewer behaviour evaluated by Benson and Powell (2015). The officers engaged in learning through interactive exercises, short film clips, exemplars of best-practice, narrated presentations, virtual simulations, self-initiated practices, and quizzes with immediate feedback and explanations of the answers. The officers progressed through the course at their own pace, with trainers tracking learner progress.

Mock interviews. All of the officers participated in six mock interviews throughout the course, which were conducted over telephone with actors trained to play the interviewees. These occurred at Baseline (prior to Module 1) and at Modules 5, 6, 7, 9 and 11. The first three mock interviews (Baseline, Modules 5, and 6) took a maximum of 10 minutes. The remaining three mock interviews (Modules 7, 9, and 11) were untimed and allowed the officers to stop the interview when they deemed it appropriate. Irrespective of what the officers might do in the field (e.g., whether they would take a statement or not, or do a recorded interview), the aim of the mock interviews was to elicit a detailed and accurate account of an alleged event. It provided an

opportunity for the officers to demonstrate their use of non-leading open-ended questions.

In addition to adhering to open-ended questioning, the mock interviews also contained additional objectives which focused on incrementally incorporating a new interviewing element in line with the course content (except the Baseline mock interview, in which the officers were permitted to investigate in whatever manner they thought appropriate). In Modules 5 and 6, the officers were to demonstrate their use of non-leading openended questions to exhaust a narrative for a single event. In Module 7, the officers were to demonstrate eliciting narrative accounts for a repeated event offence. In addition, they were asked to adhere to an interview protocol. In Module 9, the officers were to elicit all the necessary evidential details required for their single event scenario. Thus, they could ask specific questions after exhausting a narrative using open-ended questions, if they deemed it necessary. In Module 11, the officers were to complete a full mock interview (i.e., exhaust a narrative using openended questions and conduct further questioning using specific questions, if necessary, while adhering to an interview protocol). Across all interviews, the primary goal was always to elicit a complete narrative of what happened.

Immediate verbal feedback was offered at Modules 5, 7, and 9. Mock interviews at Modules 6 and 11 were formally assessed with written feedback. The officers did not progress through the course until they passed each of the two formal assessments. Those who failed an assessment were asked to reattempt the assessment with a new scenario (the original attempt was used for analyses). Data from the Module 7 mock interviews were not included in the analysis because these mock interviews focused on interviewing for repeated events (and thus contained multiple narratives).

Four trained role-players played the interviewee in all mock interviews. These individuals were not police personnel and were external to the police organisation. They were blind to the research design and hypotheses. Two of the four role-players had additional experience in providing feedback on interviewer questioning. Those role-players each

completed half of the total immediate feedback mock interviews at those mock interview time points and provided the written feedback for assessments. The other two role-players conducted the mock interviews for Baseline, Modules 6 and 11, each completing half of the total in each of those mock interview time points.

All role-players were trained to ensure similarity in responses; for example, if an open-ended question was asked, role-players were trained to respond with two or three relevant details. Conversely, if a specific cued-recall (who, why, how, etc.) question was asked, role-players responded with only one piece of information, and responded with a yes or no (and no further information) when asked a specific yes/no question (see Powell et al., 2022). This procedure ensured fairness in training but also controlled for the amount of information available in each scenario so that it would be equivalent regardless of scenario-type.

Officers were randomly assigned to the order of scenario types they would receive. Prior to the mock interview session, the officers were emailed a brief scenario description (each of approximately 54 words on average). For example: You are called to attend a restaurant in William Street, as they have had two people leave without paying the bill. Upon **Table 1** 

Frequency of Scenarios Used Across Mock Interviews

arrival one of the waiters introduces you to the cashier, Morgan, who dealt with the two who didn't pay.

The officers were then instructed to elicit a narrative account from the interviewee about the alleged event. Although it was acknowledged that specific questions are sometimes needed to obtain required information regarding the case, it was stressed that the interview was for the purpose of exercising the use of non-leading open-ended questions.

The scenarios used for the mock interviews covered a range of offence types involving a hypothetical victim being interviewed. They were provided by the police organisation and were based on actual cases they had encountered (i.e., street assault, home burglary, family violence incident, traffic incident, restaurant fraud, motor vehicle theft). They were counterbalanced across all the stages of mock interviews. That is, each scenario was represented across all the mock interview time points except motor vehicle theft which was not represented in the Baseline interviews as it was added to the pool of scenarios after training had begun. Table 1 displays the assignment of scenarios across the training program.

Scenario	Baseline	Module 5	Module 6	Module 9	Module 11	Total
Street Assault	13	4	12	10	4	43
Traffic Incident	10	12	5	12	16	55
Restaurant Fraud	4	12	13	4	13	46
Home Burglary	12	14	5	13	4	48
Family Violence	15	4	10	5	12	46
Motor Vehicle Theft	0	8	10	11	6	35
Total	54	54	55	55	55	

Note. The motor vehicle theft was added to the pool of possible scenarios after the training began.

# Coding

Mock interviews. The interviews were audio recorded and transcribed verbatim for coding. The transcripts were coded using a standardised protocol. Questions were classified as either openended, specific, or leading/suggestive. Open-ended questions were defined as those that elicited an elaborate response without dictating what specific information was required (Powell & Snow, 2007). This included initial open-ended question invitations, where the interviewee is encouraged to commence a free narrative of what happened (e.g., "Tell me everything that happened. Start from the beginning."); open-ended breadth questions, which ask the interviewee to add to the list of events that occurred (e.g., "What happened then?"); open-ended depth questions, which ask the interviewee to elaborate on a present or previously disclosed detail of an event (e.g., "Tell me more about what happened when..."); questions that ask the interviewee to clarify what they mean (e.g., "What do you mean by 'prang'?"); and questions that ask the interviewee if they have more detail to report about an alleged event (e.g., "Is there anything else you can remember about what happened last night?"). Specific questions, which dictated what specific information was required, were coded but not analysed because they are merely the inverse of open-ended questions. Both open-ended and specific questions could be double-coded as leading. Leading questions were defined as those that presume or suggest a detail that had not previously been disclosed by the interviewee and did not give a chance for the interviewee to dispute it (e.g., "What happened after he told you to sit down?", when the interviewee didn't mention sitting down, only that they were asked to).

**Reliability.** All transcripts were coded for question type by the lead author and 25% double-coded by a second researcher not involved in the study. A sample of six transcripts (one from each module) were double-coded for training purposes. Any discrepancies were discussed by both coders and a final code agreed upon together. Coders were blind to the time point (i.e., which module) during coding,

but could not be blind to the scenario. Cohen's kappa was calculated to determine interrater reliability and almost perfect agreement was found,  $\kappa$  = .97.

## **RESULTS**

To test the hypothesis that the officers would be more likely to use open-ended questions for some offence types than others (regardless of training level), we conducted a one-way between-subjects ANOVA comparing proportion open-ended question use across the six scenarios, collapsed across time point. The analysis confirmed that there were differences in the proportion of open-ended questions used, F (5, 267) = 7.337, p < .001. Bonferroni-corrected post hoc tests (p < .05) revealed that the traffic incident (M = .37, SD = .22) and home burglary (M = .35, SD = .24) scenarios did not differ from one another, and had significantly lower proportions of open-ended questions compared to the family violence (M = .53, SD = .31) and restaurant fraud (M = .61, SD = .23) scenarios, which also did not differ from one another. The remaining two scenarios, street assault (M = .51, SD = .27) and motor vehicle theft (M = .52, SD = .27), were intermediate and did not differ significantly from the other time points. Descriptively, however, the means were very close to the family violence scenario.

The initial analysis gave us some insight about differences in open-ended question use as a function of the scenario. However, that analysis collapsed across time point, and we were more interested to know if some scenarios were more amenable to training in the use of open-ended questions compared to others. Because we did not have all scenarios used at all time points, it was not possible to put both time point and scenario in the same analysis. In order to gain insight about how open-ended question use might be affected by training for different scenarios, we conducted a series of one-way between-subjects ANOVAs on the proportion of open-ended questions for each offence type at each time point (i.e., training module).

Overall, there were significant differences in the proportion of open-ended questions asked depending on offence type, at all five of the time points: Baseline [F (4, 15.397) = 7.678, p = .001], Module 5 [F (5, 48) = 5.036, p < .001], Module 6 [F (5, 15.923) = 7.549, p < .001], Module 9 [F (5, 49) = 4.067, p = .004] and Module 11 [F (5, 49) = 5.049, p < .001]. Homogeneity of variance assumption was violated at Baseline and Module 6 and was adjusted for using the Welch test. Differences between means at each time point were assessed with Bonferroni-corrected post hoc tests (p < .05) and can be visualised in Figure 1. Findings are summarised next; only significant differences are reported.

At Baseline, post hoc tests revealed that street assault (M = .22, SD = .12) and restaurant fraud (M = .24, SD = .11) both had significantly higher proportions of open-ended questions asked than traffic incident (M = .07, SD = .06) and home burglary (M = .06, SD = .05). The family violence scenario (M = .18, SD = .12) also had a significantly higher proportion of open-ended questions asked than home burglary. The findings at Baseline provide additional evidence for the first hypothesis and show the same pattern as the overarching analysis. There were clear differences in the proportion of open-ended questions used across scenarios, before training in the usage of such questions began.

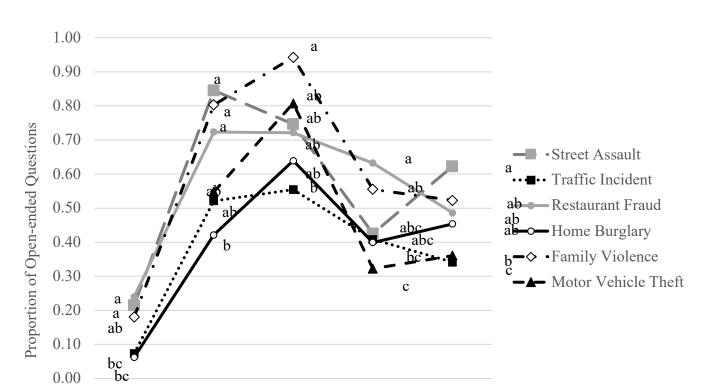
At Module 5, interviewers asked a significantly higher proportion of open-ended questions in the street assault (M = .85, SD = .19), restaurant fraud (M = .72, SD = .17), and family violence scenarios (M = .80, SD = .19) compared to the home burglary scenario (M = .42, SD = .22). The proportion of openended questions used in the traffic incident (M = .52, SD = .21) and motor vehicle theft (M = .55, SD = .26) scenarios were intermediate and did not differ from any other scenarios.

At Module 6, post hoc tests revealed that the interviewers asked significantly more open-ended questions in the family violence scenario (M = .94, SD = .06) compared to the traffic incident (M = .55,

SD = .25). The remaining scenarios did not differ significantly from any other: home burglary (M = .64, SD = .24); restaurant fraud (M = .72, SD = .24); street assault (M = .75, SD = .14); motor vehicle theft (M = .81, SD = .20).

At Module 9, post hoc tests revealed that restaurant fraud (M = .63, SD = .11) had a significantly higher proportion of open-ended questions asked than motor vehicle theft (M = .32, SD = .10) and home burglary (M = .40, SD = .16), p = .050. The family violence scenario (M = .56, SD = .10) also had a significantly higher proportion of open-ended questions asked than the motor vehicle theft. The proportion of open-ended questions used to elicit information about the traffic incident (M = .41, SD = .15) and street assault (M = .43, SD = .13) did not differ significantly from other scenarios.

At Module 11, interviewers given the street assault scenario (M = .62, SD = .20) asked a significantly higher proportion of open-ended questions than the traffic incident (M = .34, SD = .12) and motor vehicle theft (M = .36, SD = .10). The family violence scenario (M = .52, SD = .14) also had a significantly higher proportion of open-ended questions asked than the traffic incident. Restaurant fraud (M = .49, SD = .14). and home burglary (M = .45, SD = .09). were intermediate and did not differ from other scenarios. Taken together, these findings demonstrate support for the second hypothesis, that training in open-ended question use may be more effective (or useful) for certain types of offence-related scenarios.



Module 9

Module 11

Figure 1 Open-ended Question Usage Across Time Points and Offence Type

Note. Analyses were conducted at each time point. Within time point, subscripts sharing the same letter do not differ significantly.

Module 6

To verify that the training did in fact increase openended question use overall, a one-way repeated measures ANOVA collapsed across offence type was conducted to compare the usage of open-ended questions at five different time points: Baseline, Modules 5, 6, 9 and 11. Two missing data points (2 of 273 observations; less than 1% of all observations) were replaced with the mean to allow all officers' data to be included in the analysis (Tabachnick & Fidell, 2007). One officer's Baseline interview recording was missing, and a different officer's Module 5 interview recording was missing. The means and standard deviations are presented in Table 2. There was a significant effect for time point [Wilks' Lambda = .124, F (4, 49) = 86.45, p < .001, multivariate partial eta squared= .88]. This result suggests a very large effect size (Cohen, 1988).

Baseline

Module 5

Post hoc analysis using Bonferroni adjustment revealed that interviewers asked a significantly lower proportion of open-ended questions at Baseline when compared to all the other time points, demonstrating a positive effect of training. The greatest proportion of open-ended questions was observed at Module 6-significantly more than any other time point. This was followed by Module 5, where interviewers used significantly more openended questions than Baseline and Modules 9 and 11. In Modules 9 and 11, for the first time since the training began, interviewers were permitted to ask specific follow-up questions during their simulated interviews if they felt such questions were needed. Here, the proportion of open-ended questions was lower than Modules 5 and 6, but still significantly higher than Baseline. The proportion of open-ended question used in Modules 9 and 11 did not differ, suggesting stability in learning.

Table 2

Means and Standard Deviations for the Proportion of Open-ended Questions asked at Five Time Points

Time Point	N	Mean (Standard Deviation)
Baseline	55	.15 (.12) <sup>a</sup>
Module 5	55	.59 (.25)°
Module 6	55	.76 (.21) <sup>d</sup>
Module 9	55	.42 (.16) <sup>b</sup>
Module 11	55	.44 (.15) <sup>b</sup>

**Note.** \*p < .001. Significant differences are indicated by different superscript letters.

## **DISCUSSION**

The purpose of the present study was to evaluate police officers' use of open-ended questions across various scenarios prior to training and at time points throughout training. Our first prediction, that offence type can impact interviewers' adherence to open-ended questioning, was supported. Our second prediction was also supported: police officers increased their use of open-ended questions as they progressed through the training, but their use of open-ended questions was affected by the scenario they were assigned at each time point. We elaborate on each of these key findings below and speculate on the reasons for any effects involving offence type.

Although there were differences in open question use across multiple offence types, the home burglary scenario (where a woman's home was broken into while she was not home) and traffic incident scenario (person involved in a car crash) generally yielded the lowest proportion of open questions compared to other scenarios. Motor vehicle theft was also relatively low at all time points except Module 6. Module 6 represents the time point at which all of the training so far had been focused on maximising open-ended questions; thereafter, officers were permitted to use specific

follow-up questions where they deemed it necessary. At the later time points, the motor vehicle theft scenario was again elicited with a lower proportion of open-ended questions.

These three scenarios that elicited proportionally fewer open-ended questions differed from the others in that the interviewees did not have direct contact with the person of interest. The woman who was burgled was not a direct witness to the offence (i.e., she was not at home when the house was burgled), the man involved in the traffic incident did not interact with the other driver after the crash (it was a minor hit and run), and in the motor vehicle theft the man was woken by noises but did not interact with the thieves. It is too premature to conclude, however, whether the questioning style for these scenarios was due to the absence of a direct witness or direct interaction per se or to the different type of evidence needed for these types of offences compared to the others. For example, it may be that the interviewer focuses more on the physical elements of these scenes (e.g., broken window, items taken and moved, damage to vehicle, speed and stop signs). Further, the content of these scenarios was provided by the police organisation and reflected the police officers' typical experiences in these interview situations.

Scenarios that more directly involved offences against the person or where the interviewee had direct contact with the suspect (i.e., street assault, restaurant fraud, and family violence) tended to invoke more open-ended questioning. These data make intuitive sense because, in the latter scenarios, an interviewee presumably has more narrative about the event (with evidential detail) compared to the former scenarios. In other words, the value of openended questions in an interview may be predicted based on the balance of evidential detail that can be obtained from interviewees (witnesses, victims, or suspects) compared to external evidence (e.g., CCTV, biological data) and the clarity of that evidence.

As the body of research concerning interviewing best practices continues to grow, researchers are paying increasing attention to the appropriateness of questions, not just question types alone (e.g., Nunan et al., 2020; Webster et al., 2021). In general, open-ended questions will always be the gold standard because they elicit the most accurate details (they do not pressure interviewees for specific responses) and they are inherently supportive (Meissner et al., 2021). Yet, specific questions also hold value when they are appropriately used. In a study examining appropriate and inappropriate questioning during recorded phone interactions with source handlers for intelligence gathering, Nunan and colleagues (2020) found that source handlers (whose role involves eliciting covert human intelligence) utilised significantly more appropriate questions (78%) than inappropriate questions (22%). The results indicated that appropriate questions elicited significantly more intelligence than inappropriate questions. Appropriate open-ended questions, however, still elicited significantly more intelligence compared to other question types, even when those other types were categorised as appropriate. Despite these findings, only 4% of the appropriate questions asked were open-ended, and the authors suggested that there is "room for improvement with regard to the use of open-ended questions" in intelligence gathering interviews with source handlers (Nunan et al., 2020, p. 1481).

In another study, Webster and colleagues (2021) also found that police interviewers of adult rape victims asked significantly more appropriate questions than inappropriate questions. The appropriate questions elicited more investigative relevant information compared to inappropriate questions. In addition, an attentive interviewing style was associated with significantly more inappropriate questioning. The authors proposed that perhaps the inappropriate questions felt easier to answer compared to the more open-ended appropriate questions when the interviewing context is complex, highly personal, and an upsetting experience for the victim (Webster et al., 2021).

Not only should researchers and trainers pay attention to the appropriateness of question types, but also the extent to which open-ended questions might be valuable in various circumstances, where in the interview they are best placed depending on the interview topic, and what criteria would inform investigators to move on to more specific follow-up questions. The current research highlighted that well-trained interviewers learned to use openended questions but made different decisionsdepending on offence type-when to shift from open-ended to specific lines of questioning. This is a potentially ripe area for future research. For example, a Griffiths Question Map approach (Griffiths & Milne, 2006) could be taken to analyse field interviews conducted across these scenarios to see whether there are systematic differences in the pattern of questioning (rather than just the frequency of each type). Additionally, conducting focus groups with key stakeholders could be undertaken to address when and how open-ended versus specific questions should be used across a variety of investigative situations. Interviewing experts have used a similar procedure with prosecutors to generate guidance about how to follow up on various types of evidence in child forensic interviews (Burrows & Powell, 2013; Burrows et al., 2016). These data could help to formulate some broad principles to guide expectations and training design.

### **IMPLICATIONS**

Overall, the current results have several important implications. First, this research highlights the importance of training programs practicing and assessing interviewers' adherence to open-ended questions under a variety of scenarios-ones that are more challenging in relation to adherence to open-ended questions, as well as those that inherently lend themselves to more narrative-based questioning. When researchers, trainers, or organisations intend to evaluate open-ended question use (e.g., as a result of training; as a quality control measure), they should be aware of the role that offence type might play in performance, controlling for it where possible.

The second implication relates to the use of openended questions across diverse situations. Amongst the majority of scenarios where police elicit verbal evidence, an initial account supported by openended questions is of value. In the current study, even when permitted to ask specific follow-up questions, officers still used more than 30% openended questions in all scenarios. This suggests that irrespective of the offence or situation, when skilled with open-ended questioning, interviewers find them useful to elicit narrative detail. Finally, as prerecorded evidence such as body worn camera footage becomes more widespread, and verbal statements may (in the future) replace written statements, collected recordings will put increased scrutiny on the manner in which police officers interview witnesses.

# LIMITATIONS AND FUTURE DIRECTIONS

There are limitations to this study which need to be addressed in future research. The number of observations was small for some combinations of time point and scenario. The initial analysis that collapsed across time point attempted to address this limitation by using data from the whole sample to describe open-ended question use for a given scenario. However, the follow-up findings of the

<sup>6</sup> To protect the identity of the participating police organisation, the training coordinator who provided these quotes cannot be named.

individual analyses at each time point need to be interpreted with caution given some small cell sizes. Relatedly, the omission of one scenario type at baseline meant that we could not statistically include both key variables of interest (time point and scenario) in a single analysis.

Although the scenarios used represented realistic offences, interviewer questioning behaviour in a training setting may not reflect the complexities and nuances of real-life police investigations. This may affect the generalisability of the findings to the field. Future research should examine a wider range of scenarios, particularly offences such as sexual assault where the reliance on a verbal account may be especially critical (Westera & Kebbell, 2014). Furthermore, to determine whether interviewers maintain their open-ended questioning skills across scenario types, it would be ideal to conduct follow up interviews after a long period of delay after training. While it was not methodologically or logistically possible to do so for the present study, anecdotally, officers from the police organisation who completed the same training were reported to have maintained their open-ended questioning skills up to two-years post-training, as illustrated in this quote provided to the authors by the organisation.

Even after a two-year gap between graduation and returning to the training space we could see them apply what they had learnt at recruit level. They most certainly have taken it on board and continue to use it appropriately! (Anonymous<sup>6</sup>, personal communication, April 13, 2023).

A limitation to the entire body of research that evaluates question type (including the present study) is that researchers have focused on broadly increasing open-ended questions rather than on increasing *appropriate* questions (although this is beginning to change). This limitation is not a criticism of that body of work; because of the substantial challenges in training interviewers to adhere to open-ended questions (Snook & Keating,

2011; Wolfman et al., 2016; Wright & Powell, 2016) it was necessary to begin with a broad brush. Now that the field has advanced substantially, and that there is far greater awareness of the importance of openended questions, researchers and trainers can evaluate both the question type and the suitability of its timing in the interview.

## **CONCLUSION**

Police officers differ in their use of open-ended questions across offence types, however, further research is needed to understand the extent to which this variability is inherently tied to offence type versus myth. For example, myths about how to elicit evidence from children once drove the use of specific questions and various props (e.g., anatomical dolls). Subsequent research over several decades instead showed that most children can provide informative accounts in response to openended questions (Brown & Lamb, 2015; La Rooy et al., 2015). In the same vein, there may be inherent biases about the need for specific questions in certain offence investigations. Recognising the need to evaluate the utility of open-ended questions across a variety of scenarios is the first step in addressing this gap in our knowledge base. Indeed,

the training coordinator from the police organisation that collaborated in this research commented, "We like to tell police do not save [open-ended questions] for particular incidents, always challenge yourself to get their story first regardless of what evidence / information you may have" (Anonymous¹, personal communication, 13 April, 2023).

To our knowledge, this was the first study to explore how police interviewers use open-ended questions across a range of investigative situations. We examined their use of open-ended questions before, during, and at the end of a training program that emphasised the importance of such questions. As expected, we found diversity in the use of this bestpractice questioning approach depending on the offence type, and we simultaneously found that open-ended questioning use increased with training across the scenarios. We believe the results suggest that most (if not all) types of scenarios are amenable to obtaining an initial narrative account via openended prompting, but that there are important differences in the extent to which continued adherence to open-ended questioning should be expected throughout an interview.

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# Strategic interviewing in practice: Introducing a Dutch framework for interviews with suspects



Martijn van Beek¹, Ray Bull²

University of Derby
 Netherlands Police Academy
 University of Derby

Correspondence concerning this article should be addressed to: Martijn van Beek MSc P.O. Box 834, 7301 BB Apeldoorn The Netherlands

E-mail: martijn.van.beek@politieacademie.nl



# **ABSTRACT**

Criminal investigators are tasked with reconstructing what happened. One of the main ways to achieve this is by interviewing a suspect, and successful interviewing requires an openminded, information-gathering style. One strategic interviewing framework developed in the Netherlands for this purpose is the Scenario's Onderzoekende Methode (SOM); in addition, to assist interviewers in preparing their SOM interviews, trainers of the Netherlands Police Academy also developed the tool PLATO, an acronym for the links that need to be investigated

between a Person, Location, Action, Time, and Object. The present paper argues that SOM and PLATO not only are rooted in the existing scientific body of knowledge regarding strategic interviewing, but also extend this knowledge by ensuring that it is applied more effectively in the field.

**Keywords:** investigative interviewing; interrogation; criminal investigations; strategic use of evidence

# Strategic interviewing in practice: Introducing a Dutch framework for interviews with suspects

# **INTRODUCTION**

Interviewing suspects is a key element of criminal investigations (Bull & Rachlew, 2020). Such interviews serve to gather further information, test the information gathered ('evidence'), and provide the suspect with the chance to put forward their version of what happened. To ensure that (i) the information obtained is valid and reliable, and (ii) the information that will be disclosed to the suspect retains its validity and reliability, interviewers need to prepare their suspect interviews well (Kim et al., 2018), and conduct them in a structured manner (Milne & Bull, 1999).

This paper presents a framework and an associated tool developed within the Netherlands Police for structuring suspect interviews (Van Amelsvoort & Rispens, 2017, 2021). The framework is called the *Scenario's Onderzoekende Methode* (SOM)), which translates as 'Investigating Scenarios Model'; it is a synthesis of several modern, evidence-based interviewing techniques. The tool is called PLATO – an acronym for Person, Location, Action, Time, and Object – and it assists criminal investigators in preparing for their SOM interviews.

Before presenting SOM and PLATO, we will first give a brief overview of the relevant existing literature. This will provide the reader with a better understanding of how SOM and PLATO (i) are rooted in and related to some well-known, generally accepted theories and models such as PEACE and SUE; (ii) may improve the applicability of these theories in the field; and (iii) may stimulate further research.

# **PEACE**

The 1980s and 1990s saw growing academic and research interest in police interviews. In the UK and the USA, it became apparent that some suspects in major cases had made false confessions (see e.g., Gudjonsson, 2003) due to interrogative pressure being put on them by confession-seeking

detectives (Drizin & Leo, 2004; Garett, 2011; Gudjonsson, 2003; Gudjonsson, 2021; Kassin & Gudjonsson, 2004; Meissner et al., 2009; Meissner et al., 2014). These suspects were subsequently convicted but later exonerated. Similar cases were also identified in many other western countries, such as Canada (Smith et al., 2012), Germany (Schell-Leugers, 2014), Denmark, Norway, Sweden (Fahsing et al., 2016), and the Netherlands (Van Koppen, 2008; Wagenaar, 2002). Some of these countries have since made an effort to change their interrogative practices; others have been urged to comply with new guidelines in two recent United Nations resolutions (United Nations, 2021a, paragraph 47; United Nations, 2021b).

Such changes involve a paradigm shift from an interrogational/accusatory style to an investigative interviewing/information-gathering style (see e.g., Bull, 2018; Bull & Rachlew, 2020; Meissner et al., 2012; Meissner et al., 2014; Meissner et al., 2017; Miller et al., 2018; Walsh et al., 2016). In England and Wales, for example, the PEACE framework was introduced in 1992 to ensure that police officers treat suspects and witnesses open-mindedly and respectfully (Bull, 2018; Milne et al., 2008): an interview should no longer be a confession-seeking enterprise, but a conversation in which the investigator acts with professionalism and integrity to collect accurate and reliable information (College of Policing, 2022).

Indeed, PEACE is now commonly accepted as a fair and effective framework for the investigative interviewing of both suspects and witnesses (Akca et al., 2022; Kelly et al., 2021; Marques and St-Yves, 2022; Walsh et al., 2016). Its name is an acronym for the various phases of the interview process – Planning and preparation, Engage and explain, Account (including clarification and challenge), Closure, and Evaluation (for further detail, see, among others: Griffiths & Milne, 2006; Milne & Bull, 1999; Milne et al., 2008) – and the framework

gives police and other investigators substantial guidance on how best to conduct interviews with suspects (and witnesses).

Despite widespread acceptance of PEACE, the framework does have some shortcomings. One issue identified in relation to the concepts of 'clarification' and 'challenge' in the Account phase of PEACE is that this framework currently offers interviewers little guidance on when and how exactly they should challenge a suspect in the event of discrepancies between the suspect's account and other information already gathered by the investigative team (Griffiths & Milne, 2018). This issue concerns questions such as when, why, and how police information should best be disclosed to the suspect, bearing in mind factors such as (i) the assumption of innocence, (ii) openmindedness, (iii) maintaining a rapport when challenging the suspect, and (iv) preventing police information being compromised by a potentially deceptive suspect (Bull, 2014).

A field study of suspect interviews by Walsh and Bull (2015) found that interviewers differed in how skillfully they provided such information to suspects. Some were found to do so in an unstructured, accusatory manner; and this accusatory manner seemed to become more prominent when suspects were more reluctant or less cooperative (see also Izotovas et al., 2021). Furthermore, some PEACE training materials (included in Appendix I of Pounds, 2021) seem to inform police interviewers that they could refer to discrepancies repeatedly, and - in a final stage could make direct accusations. However, repeated questioning and direct accusations are both known risk factors related to obtaining false confessions (Gudjonsson, 2021; Kassin et al., 2010). Furthermore, Shepherd and Griffiths (2013) even argue that the use of the word 'challenge' is already a challenge when referring to interactions with the suspect and consider 'compare and contrast' to be a more appropriate description of what this process should look like. In sum, it seems that many interviewers could benefit from more guidance and/or a more structured approach when seeking clarification in the Account phase of PEACE, without becoming accusatory.

# Strategic interviewing

In recent years, several models have been proposed for probing and challenging the suspect's account to seek further clarity. These models make use of knowledge derived from cognitive and social psychology and can be grouped together under the umbrella of 'strategic interviewing'. The aim is to interview suspects either to elicit verbal cues for detecting deception or truth, or to obtain further and/or more specific information. Here, we argue that this may be the path to providing interviewers in the field with more structured and/or detailed guidance on how to probe and challenge suspects in the Account phase of PEACE.

One interviewing model that has received relatively intensive research coverage is the Strategic Use of Evidence (SUE) technique (Granhag & Hartwig, 2015; Hartwig et al., 2014). The SUE approach assumes that guilty suspects differ from innocent ones in their information management strategies (Hartwig et al., 2010; Hartwig et al., 2016). Whereas innocent suspects may usually be more forthcoming (Granhag & Hartwig, 2015), guilty ones are more likely to have made a plan (Brimbal & Luke, 2021; Hartwig et al., 2007) to help them avoid disclosing critical and/or selfincriminating information (Hartwig et al., 2010; McDougall & Bull, 2015). The SUE approach relies on this premise by initially withholding information or evidence, as long as there is no legal requirement to disclose it (Granhag & Hartwig, 2015). Instead, SUE tasks the interviewer with first posing questions that serve to rule out alternative explanations. Only once such alternatives have been ruled out will the interviewer disclose the information to the suspect, who is then offered the chance to explain any inconsistencies.

Another strategic interviewing approach is the *Gradual* or *Grimace* Approach (GA) (Bull, 2014). Whereas SUE (in its classic form) relies on a late disclosure strategy, GA relies on a *gradual* disclosure strategy. In the GA the interviewer will ask the suspect to provide their story, then challenge them with one contrasting piece of information at a time, followed by an invitation to explain the contrast. This 'drip-feeding' procedure is then repeated until all relevant topics have been

discussed and all relevant pieces of information gradually disclosed. Both late and gradual disclosure have been shown to be more effective than 'no strategy' approaches, or approaches which rely on the 'strategy' of disclosing all information right away in an attempt to overwhelm the suspect (e.g., Dando & Bull, 2011; Dando et al., 2015; Oleszkiewicsz & Watson, 2020; Sandham et al., 2020; Walsh & Bull, 2015).

Secondly, SUE and GA differ not only in the *timing* of the disclosure of information, but also in the accompanying *questioning strategies* (Hartwig & Granhag, 2015). In contemporary interviewing approaches it is generally accepted that the *most productive questions* are *open questions* in a TED format (with TED being an acronym for Tell, Explain, Describe; Griffiths, 2008). After posing open questions, interviewers may continue by asking more *focused questions* (meaning 5W1H questions<sup>7</sup> and appropriate closed questions; see Griffiths, 2008; Milne & Bull, 1999; Shepherd & Griffiths, 2013) to elicit the information needed to clarify matters further.

Whereas the GA relies to certain extent on open questions as advocated by the PEACE framework (Milne & Bull, 1999), and thus has an 'open approach', the SUE approach can be categorized as a 'semi-locked approach' (Oleszkiewicz, personal communication, May 6, 2019): it involves specific focused questions being asked to actively scrutinize potential alternative scenarios to explain the available pieces of information, before the relevant information is disclosed (Hartwig et al., 2011; Luke & Granhag, 2022). According to Oleszkiewicz, while an open approach is the best practice to facilitate memory retrieval processes in cooperative suspects (see e.g., Milne et al., 2008), a semi-locked approach may fit best within an effective 'evidence management strategy': the interviewer may need to secure some details regarding the police information first, before it is disclosed to suspects who appear more reluctant or more deceptive. An illustration of this is Alison et al.'s example (2021) of a suspect whose bloody thumbprint has been found on the victim's shirt. If

this information is given away too thoughtlessly, a wily suspect can explain it away by saying that he cut his finger on his way to return the shirt he had borrowed from the victim, a friend of his.

# Scenario's Onderzoekende Methode (SOM)

Now, let us turn to the Scenario's Onderzoekende Methode (SOM). In short, its aim is to provide the interviewer with a more detailed and more structured approach, specifically in relation to the probing and challenging/clarification part of the 'Account' phase of (for example) the PEACE framework, as illustrated in Figure 1. It therefore combines (i) the GA idea of the gradual disclosure of information, with (ii) the SUE ideas of asking more specific, focused questions to elicit potential alternative explanations for the available police information before this information is disclosed. So, in terms of the dimensions of questioning strategies and disclosure timing, where the GA approach can be characterized as an open, gradual approach and the SUE as a semi-locked, late approach, the SOM is a third alternative: a semilocked, gradual approach. The SOM has its origins in police interviewing practices in the Netherlands. Van den Adel (1997) was perhaps the first to postulate that deceptive suspects may provide alternative explanations if information is disclosed to them too soon. He therefore developed a working model to support interviewers in (i) exploring potential alternative explanations to the incriminating information when preparing and conducting the interview, and (ii) disclosing the available police information to the suspect in a structured and gradual manner.

This working model eventually evolved into the General Interviewing Strategy (GIS) (Van Amelsvoort et al., 2005; Van Amelsvoort et al., 2015); in English, it was presented and discussed first by Van der Sleen (2009) and later by Hoekendijk and Van Beek (2015). The strategy has now further evolved into the SOM (Van Amelsvoort & Rispens, 2017).

In this strategy, the first step of the *preparation* phase is to collect and assess all the information

<sup>&</sup>lt;sup>7</sup> 5W1H refers to the five 'W' questions *who*, *what*, *when*, *where* and *why* and the 'H' question *how*.

available that could be disclosed to the suspect (a process to be discussed in more detail in the section on PLATO below). The second step is to order this information from potentially of little

incriminating value to potentially more incriminating. The third step is to formulate a set of questions for each individual piece of information. See Figure 2 for more detail.

Figure 1
Positioning of SOM within the PEACE framework

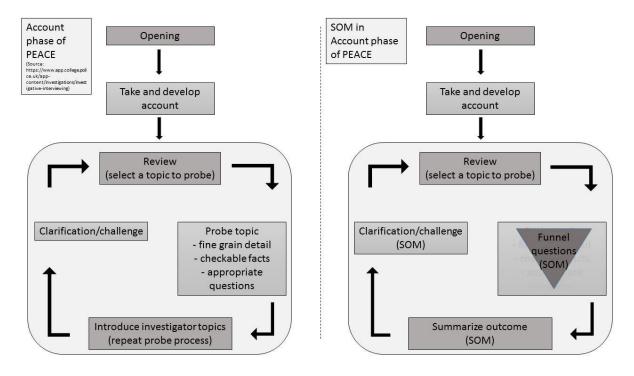


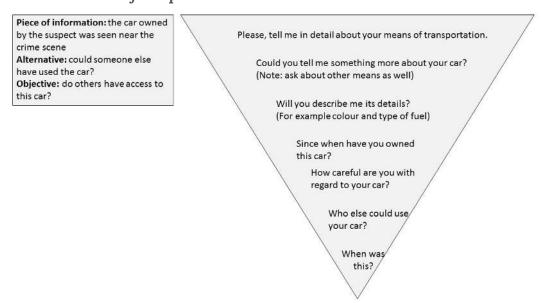
Figure 2
Preparation phase of SOM

Pre interview preparation phase of SOM: Step 1: assess Step 2: rank Step 3: think Step 4: the available the pieces of of potential formulate information information alternative for each and identify from explanations piece of individual potentially for each information pieces of less to piece of a set of information potentially information questions, more from broad incriminating to specific, to explore within the interview the potential alternatives

Each set of questions should have an appropriate funnel structure (for similar notions, see Matsumoto et al., 2015, and Griffiths, 2008, e.g., pages 191 and 212), commencing with open questions and continuing with successive 5W1H questions, increasingly focusing toward the relevant piece of information (Step 4 in Figure 2);

this process is depicted in more detail in Figure 3. This funnel approach helps the interviewer to collect increasingly specific information, step by step, without becoming more suggestive (Hartwig et al., 2011; Luke & Granhag, 2022; Lyon & Henderson, 2021).

Figure 3
Funnel structure of a topic to be discussed in SOM

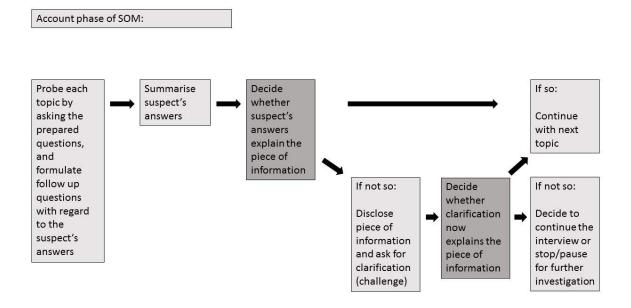


In the account phase of the interview, where the interviewer can address their own topics, they can use the corresponding set of questions for each topic. If the suspect's response matches the corresponding piece of information, this information has now been confirmed and the interview can continue to the next topic. If the suspect's response does not match, the interviewer can then – with skill (not coercion) – 'challenge' the suspect to explain this discrepancy. This may result in the discrepancy being resolved, either

because the suspect admits that the police information is indeed correct, or because the suspect is able to provide a plausible alternative explanation. If the discrepancy remains, the investigator can decide either to stop or pause the interview for further investigation, to continue with the interview and investigate matters further afterwards, or simply to make a note of the discrepancy and proceed to the next topic. See Figure 4.

Figure 4

Questioning structure of SOM in the account phase of an interview



EXAMPLE: Interview about sighting of suspect's car at the crime scene

Consider, for example, that a witness has informed the police that the perpetrator left the crime scene in a particular car with license plate XX-999. The owner of this car has previous convictions for similar crimes, and the police now consider him a suspect who should be interviewed. The information of course incriminates the car owner; however, other explanations are still imaginable. Someone else may have used the car to commit the crime, for example.

A set of funnel questions may thus address the topic of other people who may occasionally use the suspect's car. However, asking him directly whether his car is sometimes used by others would perhaps too easily provide him with an 'escape' if he is guilty. It might therefore be better to start probing this issue with an open invitation to the suspect to describe his various means of transport in detail, then continue with open questions about each means of transport, and then conclude with focused questions (5W1H–questions), such as where the suspect keeps any spare keys of his car, and who might have access to such keys.

Based on the suspect's responses to this set of funneling questions, the interviewer can then conclude whether other people could have had access to the car around the time the crime took place. If this is the case, further investigation is needed. If this is not the case, the interviewer can now disclose the piece of information in question (i.e., the witness statement regarding the car) to the suspect and ask him to respond to it. See Figure 3 for an example of questions the interviewer could ask the suspect about the car, and Figure 4 for the decisions the interviewer could make depending on the suspect's responses.

Table 1 provides another example, extracted from a real-life interview. This real-life example also highlights two important aspects of how to conduct a SOM interview: (1) the interview is goal-oriented: the interviewer should not 'just' pose their questions, let alone do so in a robotic or rigid fashion, but should use these questions as guide marks; (2) the interviewer should be adaptive to the interviewee's behavior at all times (Alison et al., 2021, p. 54): in this example, the conversation about the suspect's ex-girlfriend and their child did not serve any investigative purpose, but the interviewer sensed it was important for the suspect to elaborate a little on this topic.

### Table 1

Example of scrutinizing alternative scenarios and subsequent challenging within SOM in a real-life interview

IR: interviewer.

IE: interviewee.

IR: And your phone. What kind of phone do you have? Tell me about it.

IE: A very old Samsung. Do you want to know more about it?

IR: Yes, do you know your number by heart, for example?

IE: Yes, it is 06-11223344, and I have a monthly plan for it. My dad's business is paying for the bill. That is cheaper for me, since I receive more data for my money with a business account.

IR: Do you use your phone a lot?

IE: Yeah, for calling friends or my ex-girlfriend.

IR and IE engage in some friendly chitchat regarding his ex-girlfriend and their child.

IR: And who else can make use of your phone?

IE: No one can! It's my phone. Do you know what it costs me each month? No, I absolutely don't lend out my phone to anyone. Well, the other day a colleague needed to make an urgent call to the hospital. That was an exception.

IR: Okay, so you keep your phone to yourself.

IE: Yeah.

IR: I am asking because we also intercepted your phone.

IE: My phone?

IR reads aloud two examples of suspicious communication.

IE starts to laugh.

IR: Do you remember this?

IE: Yeah. Yeah. [Still laughing.]

IR smiles along.

IE: Ey, you know what I am going to do? As soon as I will get out, I will take my phone and throw the damn thing in the canal. Oh man, I am hung. Just tell me, what else do you want to know of me? [IE spreads both his arms wide open.]

Note: The interviewee was suspected of selling drugs, but firmly denied this in his free account at the start of the interview. However, the police had found extensive communication on his phone regarding people asking for things like 'brown' or 'white'. The objective was to first examine whether he was the only person making

use of this phone before the incriminating communication should be disclosed to him. (Some details are changed in this example because of anonymization.)

# **PLATO**

The above-mentioned example of the sighting of the suspect's car also demonstrates something else: that is, the available piece of information (the sighting of the car) directly links an Object (car) to an Action (the crime and the getaway), a Time (the moment the crime took place), and a Location (the crime scene). However, the witness only saw 'a man', so the available piece of information only indirectly links a Person (the suspect) to the crime. The first task of the interviewer is thus to explore these indirect links, using sets of funneling questions. The outcome may then be either a more direct link ("I am the one and only person who ever uses my car. I paid a lot of money for it. No one else is allowed to even touch it!") or a potential alternative scenario ("My brother quite often borrows my car."). In this example, the first answer might lead the interviewer to decide to disclose the witness information as soon as the suspect denies he was at the crime scene. The second answer, on the other hand, might lead to the decision to investigate the possibility that it was actually the suspect's brother who was involved in the crime, and to carry out this further investigation before the witness information is disclosed to either the suspect or his brother.

The notion that Person, Location, Action, Time, and Object (PLATO) are critical elements – turning information into Investigation–Relevant
Information (IRI) (Philips et al., 2012) – is not in itself new. Many years ago, Yuille and Cutshall (1986) used a coding scheme that took into account details regarding Persons, Objects, and Actions; and Philips et al. (2012) expanded this to Persons, Items (their word for Objects), Locations, Actions, and Time. However, where these authors used such elements only to create distinct categories for coding the information provided by witnesses, in PLATO the significance of the elements is that

inferences regarding the best explanation for a piece of information can *only* be made once *all* potential *links* between the five elements have been thoroughly investigated (see also Launay et al., 2022). PLATO thus helps interviewers to prepare their interviews in a more structured manner, by (i) mapping out the information they already have, and (ii) connecting this to the objectives that are still to be achieved within the interview.

Most pieces of information tend to throw light on only some of the potential links. For this reason, Dutch investigators, when learning to work with the SOM, are encouraged to identify the links that are not clear yet<sup>8</sup> when preparing for an interview (unpublished teaching materials, Netherlands Police Academy, no date). It is precisely these indirect links, or even 'missing links', that may harbor potential alternative explanations.

Preparing and conducting a suspect interview in such a way may have several benefits during the interview. If the interviewer acknowledges that pieces of information can still be explained by several scenarios, and that they have proactively considered at least some of these scenarios, this may (i) temper implicit assumptions of the suspect's guilt (and thus help the interviewer keep an open mind); (ii) prepare the interviewer for a potential rebuttal by the suspect; (iii) help the interviewer to formulate relevant questions that need to be addressed first to test the validity of the information (see Shepherd & Griffiths, 2013, p. 5); (iv) guide the interviewer in finding a logical and strategic order to be used to raise the various topics with the suspect; and (v) provide the interviewer with a structure to judge when a particular piece of information should best be disclosed to challenge the suspect. In support of the idea of considering alternative scenarios, Fahsing et al. (2021) found, in a vignette-based

source (see Jang et al., 2020, for how weak versus strong sources affect the perceived strength of evidence). However, for the sake of clarity, we do not discuss these issues further in this paper.

<sup>&</sup>lt;sup>8</sup> Of course, the piece of information itself may equally be *wrong* (e.g., a witness who is mistaken, Lindsay et al., 2007; Toglia et al., 2007 – or lying, Van Beek et al., 2021), or may be based on a *weak* 

study, that police cadets reported significantly more hypotheses, and more non-criminal hypotheses, when they were explicitly instructed to 'consider the opposite' in trying to explain what could have happened in the case vignette. The 'consider-the-opposite' instruction emphasized thinking of non-criminal scenarios as well; the control group, on the other hand, received a general instruction to consider 'all relevant hypotheses'.

Using PLATO to scrutinize potential alternative scenarios step by step in preparing the interview may thus help the interviewer to formulate objectives for the interview, while simultaneously keeping an open mind. Moreover, in combination with the funnel approaches already mentioned in the literature, PLATO helps the interviewer to make a funnel approach more concrete: for each topic the interviewer's objective is to let the suspect themselves validate the corresponding piece of information at 'the end of the funnel' - or to provide the suspect with the chance to put forward an alternative scenario that could be investigated. If the suspect makes a statement that explains or corresponds with the piece of information, the information is considered validated. If the suspect provides an alternative statement, at this point in the interview they can be challenged 'in real time' with the relevant piece of information and invited to explain the inconsistency. This is a second moment where the information can be validated. If there is still a discrepancy between the information and the suspect's response to it, the investigator can make several decisions, depending on the nature of the discrepancy. The investigator can decide either (i) to more or less ignore the discrepancy by simply reporting it as such, leaving it up to a judge and/or jurors to decide which version is more credible9; or (ii) to pause or stop the interview and initiate other actions to investigate the suspect's claims first before further information is disclosed to the suspect.

When preparing an interview plan based upon the PLATO approach, the interviewer is advised to

place the interview topics and their objectives in a sequence from rather neutral (e.g., establishing where the suspect lives) to potentially highly incriminating (e.g., discussing that a gun has been found with the suspect's fingerprints on it) (Van Amelsvoort & Rispens, 2021). The idea behind this sequence is that suspects (particularly if guilty) may be more willing to start talking about potentially less incriminating topics, so there may be less risk of losing rapport (Van der Sleen, 2009). Another advantage of this order may be that, if an alternative scenario does emerge halfway through the interview, leading to it being suspended, the more important case information remains secure. Finally, this sequence may be one of the ways to create an 'interviewing spiral' (Shepherd & Griffiths, 2013, p. 226): a discussion of all the topics in a logical order that makes sense to both interviewer and interviewee, instead of 'topic hopping' (Shepherd & Griffiths, 2013, p. 231).

# **DISCUSSION**

In this article we have outlined the SOM and PLATO, a framework and tool used in the Netherlands for preparing and conducting investigative interviews with suspects in a way that is both fair and strategic. In discussing the potential of this approach, it is relevant to start with a few words about the General Interviewing Strategy (GIS), the predecessor of SOM. Although the GIS is deemed an effective informationgathering approach by several authors (e.g., Granhag & Hartwig, 2015; Verhoeven, 2019; Vrij, 2017), it has also received some criticism. Stevens and Verhoeven (2011), for example, wrote that "although apparently miles apart from ... manipulative interrogation methods" (p. 15), "Dutch interviewing practices still involve some risk" (p. 16), since "[the GIS] attempts to influence the suspect" 10 (p. 16), this because disclosing incriminating information inevitably results in pressure. Verhoeven (2019, p. 3) therefore concluded that the GIS guidelines as described in earlier versions of the Dutch interview manual (Handleiding Verhoor; Van Amelsvoort et al., 2005,

<sup>&</sup>lt;sup>9</sup> This is comparable to the following example in 104 Alison et al. (2021, p. 154), where the authors point out that in the situation in question it would seem absurd or even incriminating for a suspect to remain silent: Interviewer: "Your fingerprints are on the

murder weapon and your bloody thumbprint is on Dave's collar and that is Dave's blood." Suspect: "No comment."

<sup>&</sup>lt;sup>10</sup> Translated from Dutch into English by the first author of this paper.

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2006, 2007, 2010, 2012) constituted "an information-gathering interview approach, with some accusatory characteristics"11. Moreover, having observed real-life interviews with suspects, Stevens and Verhoeven (2011) and Verhoeven and Duinhof (2017) noted that in actual interviews (as opposed to in the GIS guidelines), the disclosure of incriminating information and the handling of denials were sometimes associated with a nonneutral tone of voice on the part of the interviewer. Such findings by Verhoeven and colleagues led to several changes: First a revised, more concisely worded, version of the GIS guidelines was published in 2015 (Van Amelsvoort et al., 2015); subsequently, in a further revision of the guidelines in 2017, the SOM was developed (Van Amelsvoort & Rispens, 2017). The main aim of these changes was to place greater emphasis both on the specific information-gathering purposes of the approach, and on the investigative mindset required of an interviewer (Van Amelsvoort & Rispens, 2017; Rispens et al., 2017). Although Verhoeven expressed reservations about the GIS, he concluded that the SOM guidelines took an information-gathering approach (Verhoeven, 2019).

One shortcoming of the SOM thus far is that although the method is a synthesis of tried and tested evidence-based interview techniques, it currently lacks empirical support as an integral method. One of its advantages, on the other hand, is that the model (like its predecessor the GIS) has actually been used and tested in the field under the supervision of interview trainers and investigative psychologists. One extensive example of the use of the GIS in a murder investigation is provided by Van der Sleen (2009), and other (unpublished) examples of its performance under naturalistic conditions are also known to the current authors. This forms a contrast with other models, like SUE and GA, which have been tested extensively in laboratory settings, but for which testing under more naturalistic, ecologically valid conditions is

scant: In a sample of seventy real-life interviews, Walsh and Bull (2015) found that GA was associated with interviews that were conducted more skillfully and with those that resulted in more comprehensive accounts; a real-life case that relied on SUE techniques is described in Granhag and Luke (2018).

Given that the science of interviewing suspects is still relatively in its infancy (Moston, 2021), further research and practice are needed to establish evidence-based protocols for interviewing suspects, especially in serious cases and with 'clever' offenders. Further testing of strategic interviewing models – including the SOM – and their associated questioning and timing strategies would seem to be a good starting point for this endeavor.

In such testing, it is essential to take into account naturalistic, real-life conditions in actual police and legal contexts (Leahy-Harland & Bull, 2021; Nahari et al., 2019; High-Value Detainee Interrogation Group, 2016; Russano et al., 2019), since many studies in this domain to date have been criticized for lacking ecological validity (Granhag & Hartwig, 2015; Sagana & Van Toor, 2021; Vredeveldt et al., 2014). If ecologically valid conditions are met, further research may equip investigators with interviewing protocols that will enable them to make more informed inferences about what happened in the crimes they have to solve.

Until then, the SOM can be applied as a structured framework that may facilitate interviewers in putting into practice relevant modern scientific findings regarding the effective interviewing of suspects. Such interviewing strategies are in line with the recent Méndez principles for all member states of the United Nations (Méndez, 2021), which aim at replacing any remaining coercive interrogation practices with non-coercive information-gathering approaches that are both effective and fair.

<sup>&</sup>lt;sup>11</sup> Translated from Dutch into English by the first author of this paper.

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# EARLY CAREER RESEARCHER SPOTLIGHT

# A study of interviewing practices by Australian corporate and financial investigators

Michael King

The Academy of Excellence in Financial Crime Investigation and Compliance Griffith Business School, Griffith University. Email: Michael.b.king@griffith.edu.au

# **BIOGRAPHY**

Dr. Michael King, under the supervision Associate Professor Mark Lauchs, School of Justice, graduated with the Queensland University of Technology (QUT) Outstanding Doctorial Thesis Award in May 2022. He joined Griffith University's Academy of Excellence in Financial Crime Investigation and Compliance in February 2023. Prior to this he was a lecturer in Fraud and Financial Crime at the Australian Graduate School of Policing and Security.

# INTRODUCTION

My PhD research comprehensively examined the policing of economic crime by Australian private investigators. The findings identified that the services afford clients a level of discretion and autonomy not found within the justice system. These services are now provided by investigators who are qualified and who utilise the skills of a corporate investigator, an accountant and a lawyer. A significant aspect of the research was an examination of the investigative interviewing processes in the context of financial frauds, as experienced by corporate investigators in Australia; this was the first study of its kind.

Australian private investigators undertaking corporate and financial investigations usually only receive cursory investigative. Which is a concern because investigators may not fully gather evidence effectively (Lokanan, 2018). This research studied corporate and financial investigators' perceptions of the role of interviewing in financial crimes and the usefulness of interviews as evidence.

Traditionally, investigator interviewing, and interrogation primarily related to insurance and workers' compensation claims (see Gill & Hart, 1997; Prenzler & King, 2002). A study by Ericson et al. (2003) involving former police officers turned private investigators observed that "experienced"

police investigators are much better than adjusters in cultivating informants, interrogating suspects and acquiring evidence of fraudulent claims ... have established relations with public police that are facilitating investigations" (p. 257). These findings were also observed by Gottschalk (2017), who noted that Norwegian investigators tended to act as though they were still law enforcement officials. Similar findings have been reported in the United Kingdom (e.g., Gill & Hart, 1997) and Australia (e.g., Prenzler, 2001).

Gottschalk (2017, p.630) observed that it was possible for investigators to "jump on the roles of prosecutor and judge when they interview and write about suspects in their reports of investigations". Despite the acknowledgment that private investigators conduct interviews for clients in a variety of criminal and civil investigative matters, little detail is known about the interviews they conduct. It is common for investigators to have policing backgrounds, police interviewing skills such as "communication skills, empathy, flexibility, open-mindedness, clear structure, and open question[s]" (Bull & Cherryman, 1995, p. 413) should be applicable to private investigator interviews.

The participants comprised 33 corporate and financial investigators (referred to as

investigators). A semi-structured interview schedule was used to encourage discussion regarding a range of themes related to the participant's experience in investigative interviewing for those suspected of or witnessed financial, corporate and workplace crimes. The broad nature of the questions asked, and the style of interviewing adopted by the researcher allowed participants to discuss personally relevant experiences and concerns. The study used two prompts:

• Define a skilled investigative interviewer in corporate or financial crime

investigations.

What aspects, qualities or skills are most important

The participants averaged 42.5 years of age (27–69 years), with 24 males and 9 female participants. While 42% had police experience, see table 1 for interviewee demographics.

**Table 1**Investigator Demographics

Description	N=33				
Age					
20-30	3				
31-40	8				
41–50	15				
51-60	5				
61 and over	2				
Gender					
Male	24				
Female	9				
Prior Police Experience					
Constable	6				
Sergeant	2				
Detective	4				
Inspector	1				
Superintendent	1				

All participants acknowledged that interviewing was a critical component of their role and were broadly aware of cognitive interviewing as a technique; however, 20 (60%) had difficulty explaining what it involved. Only 12 (36%) had attended additional investigative interviewing courses after obtaining a licence. These courses ran for 3–5 days in a classroom environment and were based on the PEACE model (n = 10, 30%). Two participants said that they had attended REID interviewing and interrogation courses in the US.

When asked to define a skilled investigative interviewer in corporate or financial crime investigations, the interview responses were considerably consistent. Irrespective of the interviewee's background or experience, the characteristics most perceived to be important were personal in nature, as opposed to behaviours learned in a training course: Additionally, Interviewee 26 said, 'I believe life skills to be more important than any interview training'.

The interviewers indicated that good interview techniques involved planning and maintained rapport, while remaining open-minded about the interviewee. The most discussed interviewing techniques were using open questions and developing rapport. Specifically, four interviewees spoke of the need to use open questions to obtain a free narrative account from the interviewee and effectively probe responses. However, five interviewees said that, at various times during investigations, there was varying levels of pressure from clients to 'find' evidence of fraud. One interviewee said that 'there's an evaluation component there that you don't know. I was working for a client for some time and suddenly the work stopped. I spoke with them, and they said I was not getting the right results' (Interviewee 16). The interviewee implied that they had not 'identified enough fraud.' One interviewee, who was an external fraud consultant, said that 'there are certain companies that are known to favour more oppressive interviews to get the job done' (Interviewee 31).

Williams (2005) studied North American investigators and observed that a commonly employed interview strategy was to "confront suspects with evidence of their wrongdoing during

an interview or interrogation, and [pressure] them to provide a "confession" (p.196). The Australia's corporate regulator-Australian Securities and Investments Commission (ASIC)-reviewed how insurers investigate claims and discovered that many consumers, reported poor practices by insurers and their investigators. Criticism within the report focused on how insurers used private investigators conduct their investigations. The ASIC's investigation mirrored the Australian Financial Rights Legal Centre's (FRLC, 2016) which examined insurance fraud investigations. The report discovered that claimants were often "treated like a criminal" and that the investigator prejudged their guilt on little or no basis and suggested theories that did not resemble reality (FRLC, 2016, p.6). This study partially supported observations by Williams (2005) and the FRLC (2016), that investigators use tactics to pressure interviewees to admit guilt. For example, one interviewee (a former UK police officer) said during my research that they were so unhappy with the inherent bias of insurance fraud interviews, they no longer performed the work. Further, it builds on the literature of poor police interviewing practices.

International research regarding police interviewing typically suggests poor practices tend to be the norm rather than the exception (see Fisher et al., 1987; Milne & Bull, 1999; Snook et al., 2010). Typically, police interview research focuses on key elements of police interviewing such as confessions and false confessions, training and behaviours of police (e.g. Fisher et al., 1987; Meissner &, 2002; Clarke &, 2001). It was found that a typical police interview would exhibit poor communication skills, including interrupting the witness and using inappropriately closed and leading questioning (Fisher et al., 1987). The reliance on police training is problematic as it well documents that Australian police use of inappropriate interviewing tactics. It has been suggested that the pattern of interviewing by police like that seen in the United Kingdom prior to the introduction of the PEACE model (Adam & van Golde, 2020; Hill & Moston, 2011).

In the absence of effective investigative interviewing programs the study found that investigators will rely on training received as police or on American texts and training to develop skills. Sennewald and Tsukayama (2015) observe that it is the interview that comprises the critical part of the investigation, an "examination, study, searching, tracking and gathering of information that answers questions or solves problems" (2015, p.3). This resonates with investigators, however, they further state the effectiveness of REID interviewing is that "the confession is the crown jewel of any case" (2015, p.130). While another American text adopts the term offensive interviewing which can be described as maximizing the interview process which "focus on close-ended questions to illicit yes no responses without elaboration" (Purpura, 2011, p. 424). Such tactics have been used by corporate investigators undertaking interviews in Australia to cover-up a culture of bullying and harassment in the workplace.

Investigative interviews should be conducted by investigators who are well trained and adhere to best interview practices. However, the study showed that interviewing conducted by corporate and financial investigators needs revision.

Investigators continue to use inappropriate interviewing tactics and are likely to do so without specific and ongoing training.

The research contributes to the current literature on investigative interviewing by providing insight into corporate and financial investigators' beliefs regarding their role as investigative interviewers and their ability to conduct interviews. Specifically, this study has revealed that there are limitations in the investigative interviewing that is currently undertaken by investigators. Improving that knowledge of the practice and procedures for those undertaking corporate and financial investigative interviewing requires further research.

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