**Exploring How Members of Illicit Networks Navigate Investigative Interviews**

Author Note

David A. Neequaye, Pär Anders Granhag, Timothy J. Luke, Department of Psychology, University of Gothenburg.

 This research is funded by the United States High-Value Detainee Interrogation Group Contract 15F06720C0002022 awarded to David A. Neequaye and the University of Gothenburg. Statements of fact, opinion, and analysis in this work are those of the authors and do not reflect the official policy or position of the Federal Bureau of Investigation or the United States Government.

 Correspondence to: David A. Neequaye, Department of Psychology, University of Gothenburg. Box 500, 40530 Gothenburg, Sweden; Email: david.neequaye@psy.gu.se

 **Data Availability Statement:** All data supporting the findings in this research will be publicly available on the open science framework repository (osf.io).

Contributor roles:

* David A. Neequaye: Conceptualization, Data curation, Formal Analysis, Funding acquisition, Investigation, Methodology, Project administration, Writing – original draft, Writing – review & editing
* Pär Anders Granhag: Funding acquisition, Methodology, Writing – review & editing
* Timothy J. Luke: Conceptualization, Data curation, Formal Analysis, Writing – review & editing

**Abstract**

This study will explore how members of an illicit network navigate investigative interviews probing their crimes. We will examine how perceived disclosure outcomes, namely, the projected costs and benefits, affect what members choose to reveal. We aim to recruit a minimum of *N* = 20 groups, six participants per group. Each group will assume the role of an illicit network. The network is to plan for possible interviews with investigators probing into the legitimacy of a business the network owns. All participants will undergo an interview after the group planning stage. We will examine two research questions. (1) What do network members choose to reveal, and why do they make the choices they do? (2) To what extent do individual decision-making and the network a person belongs to independently and jointly predict the kinds of information people choose to disclose about their network? The results will contribute to understanding how illicit networks are likely to manage information disclosure in investigative interviews.

 *Keywords.* criminal networks, decision-making, disclosure, investigative interviewing, terror groups

**Exploring How Members of Illicit Networks Navigate Investigative Interviews**

 Imagine Detective Doe is investigating an illicit network called MERSA. MERSA is suspected of laundering money via a chain of tanning salons: MERSA’s supposed legitimate business. Doe will interview some managers of the tanning salons: the suspected founders of MERSA. The detective is eager to learn from the psychological science of investigative interviewing to assist in preparing for the interviews. Stakeholders advise law enforcement officers to rely on science when soliciting information from human sources (e.g., Vrij et al., 2017). This study aims to contribute to efforts like Doe’s by examining how members of illicit networks manage information disclosure in an investigative interview. Existing research focuses on the individual strategies of interviewees, even when those interviewees belong to a small group (e.g., Granhag et al., 2016). Presently, Detective Doe is unlikely to find the most suited answers to understand how illicit networks navigate investigative interviews. This research is an initial attempt to address the detective’s need by examining the influence of a network’s collective planning and the decision-making of individual members therein.

 We will explore how perceived disclosure outcomes, namely, the projected costs and benefits, affect what networks choose to reveal. The study will focus on disclosure pertaining to the network as a whole, not about the individual being interviewed. This study focuses on a situation where the individual’s goals align with their network’s goals. The proposal is *not* about the potential scenario wherein the individual’s goals conflict with their network’s goals. Examining such a conflict will be useful to the literature, but this aspect is not our current objective.

 Our quest is to explore the extent to which group and individual decision-making predict the management of information disclosure about a network, not information disclosure about the network members undergoing an interview. When interviewing someone about their network—and the focus is solely on the network—to what extent does the network the interviewee belongs to predict the *type of information* the interviewee will *choose* to reveal. Are two or more different people from the same network likely to disclose similar kinds of information? Does disclosure in this context better resemble individuals independently managing the potential outcomes of revealing information?

 Various features could characterize illicit networks, for example, hierarchical differences between members, centralized versus decentralized structures, and the intensity of members’ loyalty. To pave the way for future research, our goal at this initial stage is to examine a basic or generic form of a network. A group consisting of a flat hierarchy wherein the members share a common illicit goal.

**Conceptualizing a Generalizable Taxonomy of Information-Types**

 We draw on the disclosure-outcomes management (DOM) model to conceive the types of information an interviewee can disclose (Neequaye et al., 2021). Descriptions of investigative interviews in the field suggest that interviewees typically face a dilemma: conflicting goals wherein some desired outcomes prevent other goals or compete for resources with other goals (Soufan, 2011; Toliver, 1997). Consequently, interviewees manage their disclosures such that they reveal some information but not every information they hold: a finding that features in the published literature (Luke, 2021). Currently, there is little research examining what interviewees disclose and why they elect to reveal the information they do. Existing research focuses heavily on the amount of information interviewees disclose (see, e.g., Luke, 2021). Examining the processes driving those disclosures will be a useful addition to the literature.

 The DOM model draws on the established idea that decisions are usually a function of the joint influence of perceived costs and benefits (Tversky & Fox, 1995; Tversky & Kahneman, 1992). The model predicts that interviewees determine what to disclose via intuitive cost-benefit considerations. Interviewees navigate the conflicting goals of their dilemma by estimating what disclosures will likely yield beneficial (or desirable) rather than costly (or undesirable) outcomes, and they disclose those items accordingly. Thus, an interviewee might be more willing to disclose some information items than others when considering the entire lot of information the interviewee holds. The DOM model posits that from an interviewee’s point of view, the expected outcomes of disclosure, namely, the costs and benefits, can be high or low in magnitude. Such perceived valence depends on two characteristics of the interviewee: the pieces of information the interviewee holds and the interviewee’s current dilemma. Using that conceptualization, the model provides a wieldy and generalizable taxonomy of information-types.

 **Low-stakes information.** Suppose an interviewee expects no tangible benefits or costs with revealing an information item: the perceived costs and benefits of disclosure are low. These information units have relatively few or unimportant consequences for the interviewee. The DOM model predicts that interviewees will refrain from disclosing Low-stakes information to avoid taking unnecessary risks. Such disclosure is not immediately beneficial to navigating the self-interest dilemma but carries potential costs.

 **Guarded information.** Sometimes, the benefits of revealing a piece of information can be low, while the costs of disclosing it are high. In such cases, interviewees will be unyieldingly unwilling to disclose the information. From an interviewee’s perspective, the costs of revealing such information far outweigh the benefits.

 **Unguarded information.** An interviewee could expect disclosing an information unit to yield a highly beneficial outcome and little to no costly consequences. In this case, revealing the information is in the interviewee’s best interests; the interviewee will be maximally willing to disclose things that have the features of unguarded information.

 **High-stakes information.** The costs and benefits of some expected outcomes can be both high in magnitude. These situations will elicit a stark motivational conflict. Thus, interviewees are likely to either disclose or withhold the information entirely.

**The Present Research**

 The current study will contribute to the literature in three ways. First, we introduce a research design to create mock illicit networks for experiments on investigative interviewing. Then the study will tackle two main research questions.

 **Question 1.** Preliminary results support the DOM model’s conception of information-types (Neequaye et al., 2021) but the theory is still nascent. The present research is another attempt to explore the DOM model’s tenets, probing how well DOM generalizes to the context of illicit networks. Here we will examine the extent to which dilemmas at the level of a network generate the information-types the model predicts.

 **Question 2.** Our next goal is to examine the extent to which individual decision-making and the network a person belongs to independently and jointly predict the kinds of information people disclose about their network. Such knowledge could help practitioners like Detective Doe be cognizant about how interviews might go with the various network members under investigation. Consider two results that might emerge from the current research.

 ***Result-a.*** Assume the proposed study demonstrates that the network a person belongs to is the predominant influence behind what network members choose to disclose. Assume also that Doe is well prepared for the interviews. Based on investigations, for example, tips from informants, the detective has an idea of the dilemma MERSA (the network) might be contending. Doe can form reasonable predictions about the topics of conversation MERSA members might view as high-stakes information, for example. Suppose Doe discovers that a particular interviewing approach tends to elicit high-stakes information from one network member. That knowledge could be used to plan an interview with another MERSA operative: Doe can now better predict how best to elicit high-stakes information from members of MERSA.

 ***Result-b.*** Now assume the proposed study demonstrates that individual decision-making is the prime influence driving disclosure decisions. Then Detective Doe will know to focus on the specific individuals to be interviewed. Doe must conduct more investigations on those individuals to determine how they might individually manage their disclosures.

**Method**

**Participants and Design**

 The research will be entirely online and conducted via the Zoom video conference platform and Qualtrics. The procedure adheres to the guidelines governing research with human participants, and the IRB of the Federal Bureau of Investigation has approved the protocol (Docket No. 629-21). Before commencing the research, participants will provide informed consent to the procedure; they will receive a full debriefing after.

 The participants will be recruited under the guise of a group planning study. They will assume the role of an illicit network, planning for possible interviews with investigators probing into the legitimacy of a business the network owns. We aim to recruit already acquainted participants—for example, friends or co-workers—to serve as a network: typically, network members are not complete strangers. This design choice allows us to commence test sessions without needing to induce familiarity between participants.

 Each network in the present study will consist of six participants. To our knowledge, there is no absolute number that makes a group or a network, but the literature contains guiding principles. A group should consist of at least three people. Social identity researchers argue that a dyad is not a group: a dyad may not elicit the group dynamics that likely characterize networks, for example, social pressure, coalition formation, and deviance from majority decisions (Hogg, 2006). Additionally, we draw on research indicating that computer-mediated communication facilitates an appreciable level of interaction between a group comprising a maximum of six people (Lowry et al., 2006). We extrapolate that a video conference of six interlocutors will allow participants sufficient opportunity to contribute to group discussions when planning for their potential interviews. Streamlining communication in the group will ensure that all network members understand and are aware of any consensus that emerges during their group planning.

 Participants will be recruited via a university participant pool and online adverts. We aim to include a minimum of *N* = 20 networks (six people per network), which will amount to approximately 120 individual participants. Each participant will make 48 decisions, which will provide an approximate total of 5,760 observations in the present study. Resource availability guided our choice of sample size. Our funding for this project allows us to run the present design twice. Thus, we planned for the possibility of conducting a follow-up study if needed. Previous experience in video conference data collection leads us to believe we can achieve the current target sample size and a potential follow-up study, given the described constraints. Our goal is that this study will guide future studies to estimate effect sizes and predict how long data collection might take.

**Procedure**

***Phase 1: Planning by the Entire Network***

 The setting of this phase will be a Zoom video conference. An experimenter will chaperone the participants using a PowerPoint presentation to explain the protocol of this phase. The script of the presentation is in the appendix.

 Each group of six participants will assume the role of a network that runs an illegal sports betting business that engages in money laundering. The network fronts as a chain of tanning salons. To enhance group affiliation, each ostensible network will commence the study by determining a name and a slogan for their supposed legitimate chain of tanning salons. That name and slogan must be ostensibly credible to prevent suspicion from law enforcement. For example, Golden Tanning Salons—Get a tan and smile! Creating such fantasy themes and symbolic cues enhances group cohesiveness (Bormann et al., 1994). After this name and slogan task, the experimenter will introduce the remainder of the current phase.

 The network is under suspicion of money laundering. The tax agency has also reported that the group might be under-declaring the income of their supposed legitimate businesses. Police investigators will interview the network members. The group’s objective is to extinguish the current suspicions by convincing the investigators that their chain of businesses is legitimate. If the group succeeds in convincing the investigators, the group gets to keep their business license. Additionally, the police and tax agency will drop their investigations. If the group fails to convince the investigators, the group might lose their business license; plus, the investigators will continue their investigation.

 The design aims to include uncertainty: an illicit network cannot predict, with complete certainty, the members that law enforcement investigators might apprehend and interview. Thus, we will inform the group that any number of them might be arrested and interviewed at the next phase of the study. The group will then receive instructions on the nature of the upcoming interviews. In all, the respective interviews will be about three topics on the network. Consequently, each interview will consist of three parts; and all participants will be interviewed on all three topics. Each part will commence with a video presentation wherein the interviewer requests information on a topic. For example, the interviewer will ask about how the group started their chain of tanning salons. The network member undergoing the interview will then decide what to disclose on the topic in question. They will execute their decisions by selecting what to disclose from a list of possible information items.

 To prepare for the interviews, the group will receive a background story on the three topics the interviewer will ask about (see appendix). Each topic describes the pieces of information to be considered in the group’s planning. The group will be told that during the interview phase, each piece of information will come with two probabilities. The probability that disclosing the information item will contribute to convincing the investigators (presented as “XX% beneficial”). And the probability that disclosing the information item will jeopardize the likelihood of convincing the investigators (presented as “XX% dangerous”).

 The consequences just described will be ostensibly linked to participants’ compensation using an incentive-compatible procedure. Studies widely use such protocols to elicit true preferences (Hashimzade et al., 2017). The group will receive an initial endowment of 600SEK (~ 69 USD). We will tell them that they can double their endowment in the best case, and in the worst case, they can lose the entire endowment. The more the group members disclose beneficial information during their respective interviews, the more likely the group will increase and possibly double its endowment. The more the group members disclose dangerous information, the likelier they will decrease their endowment and possibly lose it.

 We aim to mimic the semi-cooperative interview scenario wherein the network members are motivated to disclose at least some information (see, e.g., Oleszkiewicz et al., 2017). Hence, the group will be informed that to help dispel suspicion, they must appear to be assisting the investigation by disclosing at least some information. Staying completely silent *might* raise the investigators’ suspicions, meaning the group will remain in jeopardy.

 The group will be told that the plot of the background story will guide them on what might be beneficial or dangerous to disclose. The actual probabilities of beneficial and dangerous disclosures will be revealed during the interview phase. As such, the group is free to plan how they might tackle the upcoming interviews. Each member’s decisions during their potential interview can supposedly affect the entire group for better or for worse. In truth, each participant will receive 200SEK (~ 24.5 USD): an equal split of the maximum amount 1200SEK (~ 138 USD).

 After the experimenter presents the instructions just described, the group will read the background story. They will have a maximum time of 20 minutes to read and plan and will be allowed access to the background story during the interviews. This aspect of the research design aims at eliminating the possible effects of the pressure to remember verbatim details or forgetfulness.

***Phase 2: Interviewing the Network Members***

 After the planning phase, the group will receive a Qualtrics link that will presumably take each member to the next phase. This next phase will determine who might be apprehended to undergo the interview. In truth, each participant will be told that the investigators have called them in for an interview. This phase will begin with assessing the level of affiliation members feel toward their group. We will use an adapted version of the Inclusion of Other in the Self (IOS) Scale (Aron et al., 1992). That scale is psychologically meaningful and reliably measures interpersonal closeness (Gächter et al., 2015). We will include this scale as an exploratory measure to examine the effect of interpersonal closeness on decisions.

 Next, to foreshadow the interview format, we will introduce members to the potential outcomes of their disclosures for their group. The instructions will build on the previously introduced incentive-compatible procedure. We will remind members that we will specify the extent to which disclosing each piece of information is likely to be beneficial or costly to their group. The instructions will tell members that each information unit will come with two probabilities: the probability of a positive outcome (presented as “XX% beneficial”) and the probability of a negative outcome (presented as “XX% dangerous”). Disclosing a given piece of information will bring a *random* outcome based on the provided probabilities. If the sum of the probabilities of the positive and negative outcomes does not sum to 100%, the remainder will represent neither a positive or negative outcome.

 The instructions will tell members that their performance will affect their group for better or for worse. Their decisions could boost or diminish their group’s average, thereby increasing or decreasing their group’s final compensation. This aspect of the design mimics how a member might affect their network. Each positive outcome will provide an additional 25SEK (~ 2.8 USD), allowing members to increase their group’s initial endowment. Such beneficial disclosures will ostensibly help the group retain their business license and quash the police investigation, which means the group will continue to thrive and make profits. Each negative outcome will detract 25SEK (~ 2.8 USD), making members reduce their group’s initial endowment. Dangerous disclosures will presumably jeopardize the group because they raise the interviewer’s suspicions, meaning the group’s business license will likely be revoked, and the group’s ability to thrive will dry out. As one can infer, the probability of a negative outcome will represent the potential costs of disclosure, and the probability of a positive outcome represents its benefits. We will manipulate these probabilities to mirror the DOM models conception of information-types: unguarded (50% beneficial, 15% dangerous), guarded (15% beneficial, 50% dangerous), low-stakes (15% beneficial, 15% dangerous), and high-stakes (50% beneficial, 50% dangerous).

 Consistent with the planning phase, the instructions will tell members that their role supposedly includes the motivation to appear cooperative by assisting the investigation. Therefore, we will tell members that staying completely silent may or may not cost their group a random amount of money because silence *might* raise the interviewer’s suspicions. That possibility of silence raising suspicions means the group’s business license and profits will continue to remain in jeopardy.

 The current incentive-compatible protocol will facilitate eliciting the information members are truly willing to disclose. The beneficial information, which is *beneficial* to disclose, and the dangerous information, which is *costly* to disclose, will be randomly generated. The information-type manipulations suggest the potential outcomes of disclosure. However, members cannot determine with complete certainty which disclosures will actually boost or diminish their group’s endowment. Hence, there will be no way to exploit the process. The protocol demonstrates to participants that the most prudent way to behave is to indicate one’s true preferences to take ownership of the decision outcomes. Haphazard responses cannot guarantee success or alleviate the risks. Overall, our procedure makes the consequences of decisions tangible, not merely imagined.

 We will include two memory checks to assist us flag and exclude those who fail the checks from data analysis (see appendix).

 To ensure robustness, we will include reminders in Phase 1 and 2 telling participants that communication between group members is not allowed during the interview (see appendix). Before the interview, each participant will be required to confirm that they will not communicate with other group members. Additionally, we will include a check after the interview, asking participants to confirm whether they communicated with any group member during their interview (see appendix). Suppose any participant flouts the instructions: we will conduct a robustness check by presenting the results with and without those participants.

 **The Interview**. After the instructions, the interview will commence. To better immerse members in their interviewee role and be consistent with the previous instructions, the interviewer will speak to each member via four separate video recordings. An actor will portray an interviewer: presumably, one of the investigators on the case. We will record the videos using the first-person perspective; the interviewer will speak to the camera as if addressing the viewer directly.

 The first video will be an introduction wherein the interviewer thanks the member for the meeting, describes the nature of the subsequent videos and notes that the member has the autonomy to decide what to disclose during the interview. The remaining three videos will—respectively—commence each interviewing block, and the blocks will be presented in random order. Thus, the first video will allow a seamless and direct transition to the remaining videos without needing to reintroduce the interviewer every time. In each interviewing block’s video, the interviewer directly asks about a topic matching one of the three topics in the background story. See the appendix for the interviewer scripts.

 **Disclosure Decisions.** Each interviewer-inquiry will be followed by the topic of the background story the interviewer mentioned. And each of those three topics will come with a mix of 16 information items—comprising four units of each information-type, presented in random order. Overall, the respective information-types will each be presented 12 times; and each member will make 48 decisions in total.

 The instructions will explicitly tell members that they are free to disclose more than one piece of information. They can also disclose nothing if they wish to be silent on the current topic. After each interviewing block, members will receive an automated update on their current performance. This feature will provide feedback on how the member in question is affecting their group. Additionally, throughout the interview, participants will continually have access to their current performance, namely, their contribution to their group’s average.

 The possibility for participants’ decisions to increase or diminish their group’s endowment will align with the probabilities describing the information-types. For *unguarded information* (50% beneficial, 15% dangerous), six information items will boost the endowment, two items will diminish it, and four items will have no effect. *Guarded information* (15% beneficial, 50% dangerous) include two items that will increase the endowment, six items will detract from it, and four items will have no consequence. *High-stakes information* (50% beneficial, 50% dangerous) comprise six items that will earn the group more endowment and six items that will lower the endowment. For low-stakes information (15% beneficial, 15% dangerous), two items will increase the endowment, two items will decrease it, eight items will have no effect. The specific pieces of information that will earn, detract, or have no effect on the group’s endowment will be randomly generated (see the appendix for the code).

 We have successfully implemented an interviewing procedure like the one described here (Neequaye et al., 2021) Participants understand and adhere to the instructions.

 **Exploratory measures.** We will include the following exploratory measures to help us generate future research questions. (1a) What strategy, if any, did the respective members use? (1b) If a strategy is reported: was the reported strategy in line with what the group decided, or did the member improvise? (1c) If a member improvised, why did they choose to do so? (2) Did the group create any specific roles in preparation for the interviews and a description of those roles. (2) All participants will answer the IOS scale again. We will include this IOS measure to examine whether any changes in felt closeness occurred after the interview and explore potential explanations for any observed changes in future studies. Items-1 and -2 will be presented in random order.



**Analysis Plan**

 To examine the primary research questions, we will fit and compare a series of mixed-effects logistic regression models. The model selection will take an additive approach, wherein fixed and random effects are added in progressive steps. We will construct and compare models according to this sequence:

1. A model predicting disclosure decisions (0 = not disclosed, 1 = disclosed) for each piece of information in the interview (48 decisions per participant), with risk level (0 = low, 1 = high) and benefit level (0 = low, 1 = high) as fixed effects, as well as random intercepts for each participant and random intercepts for each topic.
2. A model adding an interaction term for risk and benefit level.
3. A model adding random intercepts for each group (participants nested in groups).
4. A model adding random slopes for each participant for risk and benefit level.
5. A model adding random slopes for each group for risk and benefit level.

Models will be compared using likelihood ratio tests (significance threshold = .05). We will retain for interpretation the model that best fits the data according to these tests (i.e., the latest model in the series that outperforms the previous model). All examined models will be documented and reported either in the main text or supplemental material. Models will be fit using the *lme4* package (Bates et al., 2015) for R (R Core Team, 2021). Model convergence will be evaluated using the *glmer()* function’s defaults, but we will override the defaults to specify that the optimizer will perform 100,000 function evaluations at maximum. If a model fails to converge, it will be removed from consideration for retention and interpretation.

 The primary effects of interest are the fixed effects for risk and benefit and the random effects for individual participants and for groups. The risk and benefit effects will provide information about whether the predictions of the DOM model bear out here (research question 1). To support the hypotheses, the coefficient for benefit should be positive, and the interaction should be negative. The random effects for participants and groups will provide information about the extent to which disclosure decisions are influenced by the individual making the decision and the group to which the individual belongs (research question 2).

 To assess statistical power, we conducted a simulation-based power analysis using the *simr* package (Green & MacLeod, 2016) for R. With a similar design and with a model highly similar to the model we plan to examine, Neequaye et al (2021) found a positive coefficient for benefits, *b* = 6.33 95% CI [4.21, 8.45], and a negative interaction between risk and benefits, *b* = -3.76 95% CI [-6.64, -0.88]. Using our planned sample size of *N* = 120 participants and using the fixed effects and random effects variances observed in the primary model used by Neequaye et al (2021), we examined statistical power for the interaction between risks and benefits under three conditions: (1) with the same effect observed by Neequaye et al (2021; i.e.), (2) with an effect half the size as the previously observed effect, and (3) with an effect equal to the bound of the 95% CI of the original effect that was closer to zero. Under these three assumptions, we found that this sample size will respectively provide 93.50% power for *b* = -3.76, 45.70% power for *b* = -1.88, and 17.00% power for *b* = -0.88. As such, the present study will be well-powered for effects similar in size to the previously observed effects, but it will not have adequate power to detect effects that are substantially smaller. Because of this limitation, if the results are nonsignificant, we will not be able to make claims about the absence of theoretically relevant effects.

**Internal and Ecological Validity**

 We must address the internal versus ecological validity trade-off, given the interview format of this study. Interviewees will select what they want to disclose from a predefined list containing all the relevant information pieces. Typical investigative interviews involve verbal interactions where interviewees self-generate the information items to disclose. Consequently, in verbal interviews, interviewees can waffle, lie, or forget about details they would have otherwise disclosed had they remembered. We acknowledge that our proposed study is limited with respect to including the perils of waffling, lying, and memory: issues we intend to address in future research. For now, though, we believe our research design is a prudent way forward, given our objective to examine the mechanisms underlying what network members *choose* to disclose. The present research design allows participants to choose what to disclose.

 Like our procedure, in most studies that have used verbal interviews, participants assume interviewee roles via background stories (see, e.g., Oleszkiewicz & Watson, 2021). Those stories guide the coding of verbal interviews by providing predefined criteria of what constitutes true or legitimate disclosures instead of outlandish and false ones. We acknowledge that coding verbal interviews can generate new information items that researchers did not predict from their background stories; but, this aspect is not our current goal. Moreover, coding essentially whittles down verbal interviews into a list of legitimate items interviewees have disclosed. Our procedure retains the essential aspect of flagging legitimate disclosures and eliminates potential coding errors.

 Our justifications are not purposed to dismiss the psychological realism a verbal interview can bring. The defense is in service of the need to ensure internal validity, given this early stage of examining the mechanisms of what network members *choose* to disclose. That notwithstanding, the critic is well within their rights to have the following concern. Does our procedure overly exclude nuance? For example, an interviewer’s verbal and nonverbal reactions might affect interviewees’ appraisal of potential disclosure outcomes. In this study, participants will receive the probabilities of disclosure outcomes before disclosure and the consequences of decisions afterward. These aspects of our design generally aim to mimic desirable and undesirable outcomes, including the perceived positive and negative interviewer reactions. Note that the present research design makes the consequences of participants’ decisions tangible not merely imagined.

 One might remark that the quantitative feedback our protocol will provide is far more definitive and informative than what might manifest in an actual interview. We agree and argue that our design addresses the essential research question. To what extent do perceived outcomes influence what network members choose to disclose? Granted, the intensity of our current manipulation may produce larger effect sizes than what truly exists. We intend to interpret our results with the necessary caveats, mentioning the intensity of our manipulations. In any case, the results will contribute to uncovering how estimated and perceived outcomes affect disclosure and whether such influence remains consistent across a network. Future research can build on the needed base our procedure will provide. Such future work can examine whether interviewees flag less definitive potential disclosure outcomes and the corresponding effect on disclosure.

 In all, the results will contribute to understanding how perceived disclosure outcomes, namely, the projected costs and benefits, affect what networks choose to reveal.

**Table 1**

Study Design Template

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Question** | **Hypotheses** | **Sampling Plan & Test sensitivity rationale** | **Analysis plan** | **Theory that could be shown wrong by outcomes** |
| To what extent do self-interest dilemmas at the level of an illicit network generate the information-types the DOM model predicts? | ***Low-stakes information:*** Interviewees will refrain from disclosing Low-stakes information. ***Guarded information:*** Interviewees will be unyieldingly unwilling to disclose Guarded information.***Unguarded information:*** Interviewees will be maximally willing to disclose things that have the features of unguarded information***High-stakes information***: Interviewees are likely to either disclose or withhold the information entirely.These four predictions are interconnected and will be tested by the benefit coefficient and the interaction term. | We aim to include a minimum of *N* = 20 networks (six people per network), which will amount to approximately 120 individual participants. Each participant will make 48 decisions, which will provide an approximate total of 5,760 observations in the present study.Resource constraints and the lack of previous research (to estimate an effect size) determined our sample size choice. Thus, we planned for the possibility of conducting a follow-up study if needed. | A series of mixed-effects logistic regression models (significance threshold = .05). The model selection will take an additive approach, wherein fixed and random effects are added in progressive steps.The risk and benefit effects, and their interaction will provide information about whether the predictions of the DOM model (i.e., information-types) bear out here. To support the hypotheses, the coefficient for benefit should be positive, and the interaction should be negative.  | The DOM model cannot necessarily be disproven here. This research examines the extent to which the model’s tenets generalize to illicit networks. As such the study will provide information about the DOM model’s generalizability. |
| To what extent do individual decision-making and the network a person belongs to independently and jointly predict the kinds of information people disclose about their network? | We do not have directional hypotheses concerning this question. Our aim is to provide initial evidence about the strength of the predictors on disclosure decisions | Ditto | The same mixed-effects logistic regression models described above.The random effects for participants and groups will provide information about the extent to which disclosure decisions are influenced by the individual making the decision and the group to which the individual belongs. | N/A |

References

Aron, A., Aron, E. N., & Smollan, D. (1992). Inclusion of Other in the Self Scale and the Structure of Interpersonal Closeness. *Journal of Personality and Social Psychology*, *63*(4), 596–612. https://doi.org/10.1037/0022-3514.63.4.596

Bormann, E. G., Craan, J. F., & Shields, D. C. (1994). In Defense of Symbolic Convergence Theory: A Look at The Theory and Its Criticisms After Two Decades. *Communication Theory*, *4*(4), 259–294. https://doi.org/10.1111/j.1468-2885.1994.tb00093.x

Gächter, S., Starmer, C., & Tufano, F. (2015). Measuring the Closeness of Relationships: A Comprehensive Evaluation of the “Inclusion of the Other in the Self” Scale. *PLOS ONE*, *10*(6), e0129478. https://doi.org/10.1371/journal.pone.0129478

Granhag, P. A., Oleszkiewicz, S., & Kleinman, S. (2016). Eliciting information from small cells of sources. *Journal of Policing, Intelligence and Counter Terrorism*, *11*(2), 143–162. https://doi.org/10.1080/18335330.2016.1215507

Hashimzade, N., Myles, G., & Black, J. (2017). Incentive compatibility. In *A Dictionary of Economics*. Oxford University Press. http://www.oxfordreference.com/view/10.1093/acref/9780198759430.001.0001/acref-9780198759430-e-1516

Hogg, M. A. (2006). Social Identity Theory. In P. Burke (Ed.), *Contemporary Social Psychological Theories* (pp. 112–138). Stanford University Press. https://doi.org/10.1515/9781503605626-007

Lowry, P. B., Roberts, T. L., Romano, N. C., Cheney, P. D., & Hightower, R. T. (2006). The Impact of Group Size and Social Presence on Small-Group Communication: Does Computer-Mediated Communication Make a Difference? *Small Group Research*, *37*(6), 631–661. https://doi.org/10.1177/1046496406294322

Luke, T. J. (2021). A meta‐analytic review of experimental tests of the interrogation technique of Hanns Joachim Scharff. *Applied Cognitive Psychology*, acp.3771. https://doi.org/10.1002/acp.3771

Oleszkiewicz, S., Granhag, P. A., & Kleinman, S. M. (2017). Gathering human intelligence via repeated interviewing: Further empirical tests of the Scharff technique. *Psychology, Crime & Law*, *23*(7), 666–681. https://doi.org/10.1080/1068316X.2017.1296150

Oleszkiewicz, S., & Watson, S. J. (2021). A meta-analytic review of the timing for disclosing evidence when interviewing suspects. *Applied Cognitive Psychology*, *35*(2), 342–359. https://doi.org/10.1002/acp.3767

Soufan, A. (2011). *The Black Banners: The Inside Story of 9/11 and the War Against al-Qaeda*. W. W. Norton & Company.

Toliver, R. F. (1997). *The interrogator: The story of Hans-Joachim Scharff, master interrogator of the Luftwaffe*. Schiffer Pub.

Tversky, A., & Fox, C. R. (1995). Weighing risk and uncertainty. *Psychological Review*, *102*(2), 269–283. http://dx.doi.org.ezproxy.ub.gu.se/10.1037/0033-295X.102.2.269

Tversky, A., & Kahneman, D. (1992). Advances in prospect theory: Cumulative representation of uncertainty. *Journal of Risk and Uncertainty*, *5*(4), 297–323. https://doi.org/10.1007/BF00122574

Vrij, A., Meissner, C. A., Fisher, R. P., Kassin, S. M., Morgan, C. A., & Kleinman, S. M. (2017). Psychological Perspectives on Interrogation. *Perspectives on Psychological Science*, *12*(6), 927–955. https://doi.org/10.1177/1745691617706515