Using Disclosure, Common Ground, and Verification to Build Rapport and Elicit Information

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Abstract

Rapport-based approaches have become a central tenet of investigative interviewing with suspects and sources. Here we explored the utility of using rapport-building tactics (i.e., self-disclosure and interviewer feedback) to overcome barriers to cooperation in the interviewing domain. Across two experiments using the illegal behaviors paradigm (Dianiska et al., 2019), participants completed a checklist of illegal behaviors and were then interviewed about their background and interests (the interpersonal interview) as well as about their prior participation in an illegal act (the illegal behavior interview). During the interpersonal interview, we manipulated whether the participant's disclosure was unilateral or reciprocal (Experiment 1; $N = 124$), and whether the interviewer self-disclosed and/or provided the participant with verifying feedback in response to the participant's disclosures (Experiment 2; $N = 210$). Participants were then asked to provide a statement about the most serious illegal behavior to which they had admitted. For both experiments, participants provided more information about the prior illegal act when the interviewer provided information about themselves. Further, there was a significant increase in the amount of information elicited from the participant when the interviewer highlighted similarity with the participant. In line with prior work, we found support for an indirect relationship between the use of rapport-building tactics and disclosure that was mediated by the participant's perception of rapport and their decision to cooperate.

Keywords: reciprocal disclosure, self-disclosure, self-verification, common ground, rapport, interviewing, information elicitation

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Investigative interviewing in the United States has been dominated by an accusatorial approach characterized by confrontational tactics and the goal of eliciting a confession (Kelly & Meissner, 2015; Leo, 2008). More recently, however, practitioners and researchers have demonstrated the benefits of a rapport-based approach (Vallano & Schreiber Compo, 2015) to elicit information in both the United States (Meissner et al., 2017) and Canada (Snook et al., 2010). Building rapport is also considered a principal component of the PEACE model of investigative interviewing used in the U.K. and elsewhere (Milne & Bull, 1999).

A rapport-based approach has been shown to influence a number of interview outcomes. Individuals may resist cooperating with an interviewer through the adoption of different counter-interrogation strategies, such as remaining silent or saying "no comment" (Alison et al., 2014a). However, the use of rapport-based interviewing tactics during interviews appears to be effective in reducing such strategies (Alison et al., 2014b). In experimental studies, building rapport has also been shown to increase cooperation and admissions from individuals in both Western (Brimbal et al., 2019; Evans et al., 2014) and non-Western populations (Haung & Teoh, 2019; Wachi et al., 2018). Field and observational data suggest that rapport-based tactics facilitate information obtained from real-world suspects (Alison et al., 2013; Collins & Carthy, 2019; Kelly et al., 2016; Walsh & Bull, 2012), human intelligence sources (Nunan et al., 2020), and victims of crime (Kim et al., 2020).

Rapport has been variously defined as a working relationship or connection between an interviewer and an interviewee (Kleinman, 2006) or a smooth, positive interpersonal interaction (Abbe & Brandon, 2013). Precisely defining rapport has been a challenge for scholars, though a

review of the literature by Vallano and Schreiber Compo (2015) suggested that it is generally

believed to involve a positive or warm engagement that involves mutual respect and a productive

relationship. Professional interviewers have similarly demonstrated little agreement with respect

to defining rapport or identifying effective rapport building approaches (Russano et al., 2014).

One of the most prominent theoretical conceptualizations of rapport is the tripartite

framework of Tickle-Degnen and Rosenthal (1990) in which rapport is said to involve *mutual*

attentiveness, *positivity*, and *coordination*. Mutual attentiveness, or the degree to which the

interaction partners are focused on or interested in each other, contributes to the formation of a

coherent interaction. Positivity involves the affective nature of the interaction, including one's

perception of another's friendliness and caring. Coordination reflects the synchrony, balance, and

harmony of the interaction between the interactants. Duke and colleagues (2018) have also

proposed a five-factor model of rapport in the interview setting that expands upon Tickle-

Degnen and Rosenthal to include aspects of *trust/respect* (e.g., the interviewer appears to be

trustworthy and acts respectfully toward the interviewee), *expertise* (e.g., the interviewer seems

professional and does their job well), and *cultural similarity* (e.g., the interviewer and

interviewee share an ethnicity or culture).

The development of rapport is thought to be integral to gathering information from an

investigative interview (Abbe & Brandon, 2013). In their systematic review of rapport building

in the investigative interview context, Gabbert and colleagues (2020) proposed that *professional*

rapport-building represented the "intentional use of rapport behaviors to facilitate a positive

interaction that may, or may not, lead to establishing genuine mutual rapport" (p. 2). Herein, an

interviewer can leverage tactics such as revealing information about oneself (i.e., self-disclosure)

in order to elicit liking, which is likely to support the development of rapport in the context of an

interview (Collins & Miller, 1994). Seeking similarity between oneself and the subject (common ground; Burger et al., 2004) and providing feedback that verifies the subject's self-concept (self-verification; Swann Jr., 2011) may also serve to facilitate rapport-building. The current studies explore these three tactics in the context of suspect interviews.

The context of a custodial interview could render it difficult for an interviewer to develop rapport with a subject. The interviewer and the subject are almost always previously unacquainted, which may lead the subject to feel uncomfortable revealing information (Ignatius & Kokkonen, 2007). Additionally, the interaction itself involves a power differential (the interviewer having more power than the subject) and an adversarial goal (of acquiring sensitive information from the subject that they might not want to provide; Abbe & Brandon, 2013). The type of information that is sought from an investigative interview is also assumed to be associated with some reluctance given that subjects may be asked to provide information that implicates them or someone in their social network (Venetis et al., 2012). Subjects may also be reluctant to disclose information due to concerns for their identity or self-concept, especially if there is a risk of social rejection or, in the context of an investigation, a risk to one's personal freedom (Greene et al., 2006; Omarzu, 2000). In the present studies, we focus on several rapport-based tactics that could appeal to such concerns, including self-disclosure, common ground, and self-verification.

Self-Disclosure

Self-disclosure involves revealing personal information about the self to others. Such acts of disclosure have been shown to reliably facilitate perceptions of liking (Collins & Miller, 1994). Specifically, meta-analytic data suggests three main effects of self-disclosure on liking. First, self-disclosure increases liking of the person who discloses. Applied to an investigative

context, this suggests that an interviewer who discloses personal information to a subject will be liked more by the subject, and a subject who discloses personal information to an interviewer should be liked more by the interviewer. Second, liking produced by disclosure has been shown to facilitate reciprocal disclosure. Accordingly, a subject who likes an interviewer will disclose more information to that interviewer. Third, self-disclosure leads people to like those to whom they disclose. If an interviewer discloses personal information to a subject, s/he will come to like that subject more. The relationship between self-disclosure and liking thus appears to be mutual between individuals, regardless of who is disclosing information or receiving information at a point in the interaction.

Self-disclosure can affect liking because it reduces uncertainty about the discloser (Sprecher et al., 2013a) or because it demonstrates one's vulnerability to another (Sprecher et al., 2015). In particular, self-disclosure that involves individuals who take-turns revealing personal information about themselves has been found to lead to greater feelings of closeness, liking, and perceived similarity – all of which are key components of rapport building (Sprecher et al., 2013b). Therefore, to increase elicitation of critical, case-relevant information from a subject, an interviewer may first need to disclose personal information in order to lay the groundwork for cooperation.

A recent systematic review revealed that 40% of studies on the effects of rapport in professional contexts included self-disclosure as a component of rapport-building (Gabbert et al., 2020). However, in these studies self-disclosure was often manipulated in a present/absent manner. That is, interviewers employed either self-disclosure as an interview tactic, or an alternate approach such as applying psychological pressure (Duke et al., 2018) or emphasizing the available evidence (Wachi et al., 2018). That is, few studies have examined what elements of

self-disclosure itself are most effective in enhancing rapport. One exception is Vallano and

Schreiber-Compo (2011), wherein interviewers asked participants to self-disclose information

about themselves, and then interviewers did or did not reciprocally disclose information as well.

Interestingly, Vallano and Schreiber-Compo found that interviewer self-disclosure did not lead to

an increase in perceived rapport over and above a participant's disclosure. In the current study,

we offer an empirical test of *which* interviewer self-disclosure characteristics (reciprocity, as

examined by Vallano & Schreiber-Compo; emphasizing similarity; providing self-verifying

feedback) may be particularly effective in building rapport.

Common Ground

Related to self-disclosure is the notion of establishing common ground. People tend to

exhibit attraction to and a preference for those who are similar to them (Byrne, 1971), especially

when compared to those who are dissimilar to them (Rosenbaum, 1986). However, these

differences are often due to increases in liking for similar others, rather than a decrease in liking

(i.e., repulsion) for dissimilar others (Sprecher, 2019). Sharing beliefs and characteristics with

others can lead to feelings of validation of those characteristics (Singh et al., 2017) or to the

belief that one will be liked more by similar than dissimilar others (Greitemeyer, 2010; Hampton

et al., 2019). Self-disclosure that highlights similarities between individuals may thus be

especially effective at building rapport (Abbe & Brandon, 2013).

Finding common ground is frequently used by law enforcement and intelligence

collectors to build rapport. For instance, the majority of a sample of 123 law enforcement

interviewers reported discussing common interests as a tactic to establish rapport (Vallano et al.,

2015; see also Goodman-Delahunty & Howes, 2016; Russano et al., 2014). The use of common

ground manipulations, such as highlighting prior experience with a similar situation, have also

been shown to increase positive perceptions of an interviewer and perceived rapport in experimental settings (Evans et al., 2014; Vallano & Schreiber Compo, 2011). Therefore, common ground and highlighting similarity appear to be useful in facilitating rapport-building. Though several studies have looked at establishing common ground to facilitate rapport (Evans et al., 2014; Wachi et al., 2018), in Experiment 2 we empirically test whether self-disclosure that seeks to establish common ground differentially affects rapport when compared to other types of self-disclosure.

Self-Verification

Self-verification refers to people's preference and motivation to have others see them as they see themselves (Swann Jr., 2011). People desire this consistency between their social environment and their internal self-conceptions because it provides a feeling of predictability and control (Lecky, 1945). In order to maintain such consistency, people will selectively interact with those who verify their beliefs about who they are and behave in ways that demonstrate aspects of their self-concept to others (Swann Jr., 2011). Furthermore, people tend to self-verify by seeking feedback from others that confirms their self-concept. To the extent that a person receives such confirmatory feedback, they are more likely to reveal information and seek further interactions with the listener. Self-verification may also serve a role in developing a close relationship by way of activating a trust-building process (Burke & Stets, 1999).

Related to the notion of self-verification is that of affirmation. Derived from self-enhancement theories, self-affirmation refers to the tendency for people to maintain a positive self-concept or sense of self-integrity (Leary, 2007; Steele, 1988). People will thus respond positively to individuals who express positive things about their identity because it allows them to feel less vulnerable and boost their self-esteem. Theoretically, a resistant subject should be

more likely to reveal information if they believe the listener will verify their self-concept. An interviewer could leverage a subject's desire for self-verification and build rapport by conveying a genuine and accurate understanding of who the subject is. Research suggests that an interviewer who offers a subject self-affirming feedback may be able to leverage these positive feelings to increase information disclosure (Davis et al., 2016) and reduce interrogative suggestibility (Szpitalak & Polczyk, 2020). Here, we expand on previous survey-based research on self-affirmation and offer an initial assessment of whether providing self-verifying feedback to an interview subject is effective in improving perceptions of rapport. To our knowledge, our Experiment 2 is the first experimental assessment of self-verification in an interview context.

Overview of Experiments

In the current experiments, we examined the effectiveness of rapport building tactics based on theories of self-disclosure, common ground, and self-verification, and evaluated their influence on perceptions of rapport, decisions to cooperate, and information provided in an interview setting. Specifically, we assessed differences in the narratives provided by interview subjects when an interviewer and/or subject disclosed similar and dissimilar information about themselves (Experiment 1 and 2), and when an interviewer provided feedback that verified the self-concept of the subject (Experiment 2) in an exchange that occurred before incriminating information was requested. Video recordings of these interviews were coded for the provision of critical event information. In Experiment 2, we also video recorded the interpersonal interview and coded the presence of non-verbal correlates of rapport (Tickle-Degnen & Rosenthal, 1990). All experiment materials and data can be found on the first author's Open Science Framework page (https://osf.io/ywaf5/?view_only=ff2e86b9b93649209d21db1781947b0d).

Both experiments used an adaptation of the disclosure of illegal behaviors paradigm (Dianiska et al., 2019). Participants first completed an inventory of illegal behaviors and were later interviewed about the most egregious illegal behavior they had committed. Prior to being questioned about their illegal behavior, participants engaged in a preliminary interpersonal interview with the interviewer, discussing the participant's personality, character, and interests. Previous research has shown that such an interpersonal interview can be used to increase perceived closeness between two strangers (Aron et al., 1997; Sedikides et al., 1999). In the present study, we use this induction of closeness as a platform from which we could manipulate aspects of self-disclosure, common ground, and affirmation to facilitate relationship development (i.e., build rapport).

Experiment 1

In Experiment 1, we examined how interpersonal disclosure during a preliminary interview might increase information yield from a subsequent interview about a previously committed illegal behavior. We manipulated the presence of interpersonal disclosure from the interviewer (a trained research assistant) and the participant. We hypothesized greater perceived rapport between a participant and an interviewer and an increase in information yield when either person disclosed, compared to when disclosure was absent (Collins & Miller, 1994). We further hypothesized that the greatest benefit to perceived rapport would be seen when *both* the participant and the interviewer disclosed reciprocally (Sprecher & Traeger, 2015). Consistent with prior research (Brimbal et al., 2019; Brimbal et al., 2021; Dianiska et al., 2019), we also assessed the indirect effects of rapport on information yield via participants' expressed level of cooperation, and we evaluated the potential for mediated effects of our manipulations on information disclosure via perceived rapport and cooperation.

Experiment 1: Method

Participants and design. A total of 124 undergraduate psychology students (43% male; 79% Caucasian; average age $M = 19.17$, $SD = 0.95$) at a Midwestern state university in the United States participated in Experiment 1 for partial completion of course credit. Our target sample size of $n = 128$ was based on power of .80 to detect a medium effect size on perceived rapport ($f = 0.25$), a conservative estimate of the average effect size observed in studies of reciprocal disclosure on interpersonal perceptions (e.g., liking and closeness; Sprecher et al., 2013a; 2013b). To assess the reciprocal effects of disclosure (Collins & Miller, 1994), we used a 2 (*Participant Disclosure*: absent, present) x 2 (*Interviewer Disclosure*: absent, present) between-subjects design. The four conditions created by this design included: no personal disclosure (absent-absent), participant-only disclosure (present-absent), interviewer-only disclosure (absent-present), and reciprocal disclosure (present-present). The primary dependent variables included perceived rapport, perceived cooperation, and actual information disclosed about the most serious illegal behavior they had engaged in. We used six interviewers in this study, all female undergraduate research assistants.

Materials and procedure. We used an adaptation of the illegal behavior paradigm (Dianiska et al., 2019). Participants were instructed that they would first complete an inventory of illegal behaviors, indicating which behaviors they had committed in the past, and then would be interviewed about themselves and a prior life experience. The inventory was a 'yes'/'no' checklist of 20 illegal behaviors and misdeeds (e.g., transporting fireworks across state lines, experimenting with illegal drugs, shoplifting, etc.; see Madon et al., 2013). After completing the inventory, the experimenter informed participants that they would be interviewed about one of the behaviors from the inventory and left the room. The interviewer then entered the room and

conducted the interview with the participant about the most serious behavior committed, based upon the seriousness ratings from Madon and colleagues (2013). The experimenter listened to the entire interview from a computer in a separate room and recorded any deviations from the interview script (no major deviations were observed). All interviews began with the interviewer introducing themselves and informing the participant that they would be interviewed about one of their reported illegal behaviors. Participants in the no personal disclosure condition proceeded directly to the illegal behaviors interview (discussed below), while all other participants began with the interpersonal interview.

Part one: The interpersonal interview. The interviewer indicated that prior to discussing their illegal behavior they would like to get to know them better, and to do so they would conduct an interpersonal interview whereby the participants would answer a series of personal questions. The interviewer then asked the participant a standardized set of 18 questions derived from previous experimental work that promoted a sense of "closeness" between two unacquainted individuals (Aron et al., 1997; Sedikides et al., 1999; see supplementary materials on OSF). These questions were 'ice-breaker' type questions that one might encounter at a team-building meeting or at the first day of class (e.g., "If you could invent a new flavor of ice cream, what would it be?" "If you could go anywhere in the world, where would you go?"). Participants were randomly assigned to the two disclosure manipulations associated with the interpersonal interview – whether they self-disclosed information to the interviewer and whether the interviewer self-disclosed information to them – and assigned to one of four conditions.

In the *no disclosure* condition, both participant and interviewer self-disclosure were absent. This condition did not include an interpersonal interview and instead proceeded directly to part two, the illegal behavior interview.

In the *participant-only disclosure* condition, the interviewer asked participants to disclose information about themselves in response to the 18 interpersonal interview questions. Interviewers were instructed to remain neutral and not to offer feedback in response to the disclosure. The interviewer asked each of the 18 interpersonal questions, waited for the participant to respond fully, and then moved on to the next one. Interviewer self-disclosure was absent.

In the *interviewer-only disclosure* condition, participants listened to the interviewer disclose information about himself or herself during the interview. The interviewer read each interpersonal interview question aloud, answered it, and moved on to the next question. Participant self-disclosure was absent.

In the *reciprocal disclosure* condition, both the participant and the interviewer answered the 18 interpersonal interview questions. The interviewer waited for the participant to respond to each question first and then provided his or her response before moving on to the next question.

Part two: The illegal behavior interview. After the 18-question interpersonal interview, the interviewer transitioned to the illegal behaviors interview. The illegal behaviors interview was the first part of the interview session for participants in the participant disclosure absent and interviewer disclosure absent condition. All participants were provided with two scripted requests for information, asking them to provide as much detail as possible. Participants were instructed to think about a specific instance in which the illegal behavior occurred, and to describe the event from beginning to end. After the participants completed their first description, the interviewer then asked them to pause and reflect on the event again and to provide any additional details that they could recall about the event. The interviewer reminded the participants that it is important that they provide as much detail as possible. If the participant

asked for clarification on the type of details, interviewers responded with "any details you can recall."

       Self-report items. At the conclusion of the interview, participants completed a post-experiment questionnaire assessing their perceptions about the illegal behavior that they described, as well as their perceptions of the interview and the interviewer. Most items were assessed using a scale from 1 (*not at all*) to 7 (*extremely*). Participants first answered items about the importance and unpleasantness of the misdeed, the approximate month and year when it occurred, and four items assessing negative emotion associated with the misdeed (regret, personal responsibility, disappointment, guilt). Participants then responded to three items assessing the perceived amount of information disclosed, how much pressure they felt to disclose information, and how willing they were to disclose information. Additionally, participants completed a self-report scale of perceived rapport with the interviewer (Bernieri et al., 1994). The rapport items were assessed with a scale from 1 (*not at all*) to 9 (*extremely*), consistent with prior research. After responding to the self-report items, participants were debriefed and dismissed from the study. Here we focus on self-report items of perceived rapport, as well as participants' amount and willingness to disclose information. The remaining items can be found on OSF.

       Similar to other researchers (Houston et al., 2017), we extracted two rapport factors using Principal Axis Factoring corresponding to what respondents believed to be positive and negative perceptions of the interaction with the interviewer, accounting for 55.72% and 51.16% of the variance, respectively. Both factors contained items with high loadings (i.e., $\lambda > 0.70$) or acceptable loadings ($\lambda > 0.50$; Comrey & Lee, 1992); the full factor structure and loadings are available to interested readers on OSF. From these factors, we created two regression-based

factor scores for perceptions of positive rapport and negative rapport. Reliability analyses for items associated with the positive factor ($\alpha = .89$ [.85, .92]) and negative factor ($\alpha = .83$ [.78, .87]) suggest the measures have good reliability. A factor score of zero represented near-average perceptions of rapport. Negative values of the factor score represented less than average perceptions of rapport, and positive values represented higher than average perceptions of rapport.

Finally, we created a construct to assess participant's *perceived cooperation* by generating a single regression-based factor score from two items (willingness to provide information and amount of information provided; $\alpha = .36$ [.09, .55]), with both items loading at > .47 and the factor accounting for 22.16% of the variance. Factor scores greater than zero for cooperation reflect greater than average cooperation, while scores less than zero reflect less than average cooperation.

Statement coding. Two trained coders, blind to condition, watched participants' responses from each illegal behavior interview and rated them for the presence and precision of critical details (i.e., details regarding the who, what, where, when, why, and how of the event), sensory details, and expressed negative emotion about the misdeed. *Quantity* of detail was operationalized as dichotomous responses of 0 (absent) or 1 (present) to six critical components to the event (i.e., Who, What, Where, When, Why, and How). Coders rated each component in the participant's statement as either a 1 (if information regarding that critical detail was present) or 0 (if this information was not present). Quantity of information ranged from 0 to 6 critical details. *Precision* of detail was rated separately for each detail that was judged to be present in the statement. For each present judgment, coders rated how specific the detail was on a 1 (*coarse detail*) to 3 (*fine detail*) scale. If a detail was judged as absent, the detail was given a precision

score of 0. We created an average precision score from each of the six details (0 to 3). Reliability was adequate between coders (average AC_1: 0.69; Gwet, 2008, 2012). Discrepancies between coders were resolved by a third coder who was also blind to condition.

Because the quantity and precision estimates were highly correlated ($r = .82$, $p < .01$), we created a single regression-based factor score of *information disclosure*. Principal Axis Factoring extraction was used and the factor solution accounted for 82.21% of the variance. A factor score of zero represents information disclosure that approximates the average of our sample; negative values indicate lower than average disclosure and positive values indicate higher than average disclosure.

Experiment 1: Results

Descriptive statistics for all primary outcome measures (i.e., factor scores) by condition are provided in Table 1. There were no interviewer effects on any of the outcome measures.

Perceptions of Rapport. We first investigated the influence of our disclosure manipulations on perceived rapport. We have provided the full factor structure and loadings on OSF, as well as analyses for both positive and negative rapport. Given that the positive and negative rapport factors were correlated, the patterns are similar and therefore for brevity we focus on the positively valanced measure here. A 2 (*Participant Disclosure:* Absent, Present) x 2 (*Interviewer Disclosure*: Absent, Present) between-subjects ANOVA was conducted on the positive rapport factor. There was a significant main effect of participant disclosure, $F(1, 120) = 4.32$, $p = .04$, $d = 0.37$, 95% CI [0.02, 0.73]. Participants held a more positive perception of the interaction with an interviewer when they disclosed information to the interviewer during the personal interview. There was also a significant main effect of interviewer disclosure, $F(1, 120) = 5.18$, $p = .03$, $d = 0.41$, 95% CI [0.05, 0.76]. Participants held a more positive perception of the

interaction with an interviewer when the interviewer disclosed information during the personal interview. The interaction was not significant, $F(1, 120) = 0.95$, $p = .33$, $\eta^2 < .01$.

Cooperation. We also assessed the influence of our manipulations on a participant's decision to cooperate via a 2 (*Participant Disclosure:* Absent, Present) x 2 (*Interviewer Disclosure*: Absent, Present) between-subjects ANOVA. There was a significant main effect of participant disclosure, $F(1, 120) = 7.10$, $p < .01$, $d = 0.48$, 95% CI [0.12, 0.84]. Participants reported greater cooperation during the interview when they had disclosed information during the interpersonal interview, compared to when they had not disclosed information during the interpersonal interview. The main effect of interviewer disclosure ($F(1, 120) = 0.26$, $p = .61$, $d = 0.08$, 95% CI [-0.27, 0.44]) and the interaction between interviewer disclosure and participant disclosure ($F(1, 120) = 0.21$, $p = .65$, $\eta^2 < .01$) were not significant.

Information Disclosure. Finally, we assessed the influence of our manipulations on information disclosure via a 2 (*Participant Disclosure:* Absent, Present) x 2 (*Interviewer Disclosure*: Absent, Present) between-subjects ANOVA. There was no main effect of participant disclosure, $F(1, 120) = 2.90$, $p = .09$, $d = 0.31$, 95% CI [-0.05, 0.66]), no main effect of interviewer disclosure ($F(1, 120) = 0.06$, $p = .81$, $d = 0.05$, 95% CI [-0.31, 0.40]), and no significant interaction ($F(1, 120) = 0.09$, $p = .71$, $\eta^2 < .01$).

Mediational path model. In the above analyses, we tested the direct effects of our manipulations on key outcome variables – specifically, the extent to which the participant perceived rapport with an interviewer, their willingness to cooperate with an interviewer, and the amount of information disclosed about a prior illegal behavior. Conceptually similar to prior studies (Brimbal et al., 2019; Brimbal et al., 2021; Dianiska et al., 2019), we also assessed the potential *indirect* influence of our manipulations on information disclosure via perceived rapport

and cooperation. Specifically, we tested whether the presence of participant disclosure and interviewer disclosure during the interpersonal interview would influence a participant's perceived rapport with an interviewer, leading to increased cooperation and ultimately increasing the disclosure of critical information. We first tested a fully recursive model with all possible direct and indirect effects of our manipulations on disclosure via rapport and cooperation using the lavaan package in R (Rosseel, 2012). We then assessed a nested model including only the significant paths from the first model.

The final model offered a good fit to the data (RMSEA = 0.027, p = .30; χ^2 (4, N = 124) = 4.36; NFI = .91), accounting for 13.6% of the variance in cooperation and 11.9% of the variance in disclosure. As displayed in Figure 1, there was both a significant direct effect of interviewer disclosure on perceived rapport (β = .20, p = .02) and a significant direct effect of participant disclosure on perceived rapport (β = .18, p = .04). Perceived rapport significantly predicted perceived cooperation (β = .29, p < .01) and participant disclosure (β = .18, p = .03). Finally, greater perceived cooperation predicted an increase in critical information disclosure (β = .35, p < .01). We further observed significant *indirect* effects of interviewer disclosure on perceived cooperation (β = .06, p = .01) and information disclosure (β = .02, p = .01). Similarly, participant disclosure also indirectly increased perceived cooperation (β = .05, p = .02) and information disclosure (β = .08, p < .01). Finally, perceptions of rapport indirectly increased disclosure (β = .10, p < .01).

Experiment 1: Discussion

Experiment 1 assessed the influence of interviewer and subject self-disclosure on perceptions of rapport, cooperation, and information disclosure. Our findings suggest that manipulating interviewer disclosure influenced perceived rapport, such that interviewers were

able to build rapport with a subject by disclosing personal information about themselves.

Disclosure of personal information by the subject also facilitated perceptions of rapport and

additionally increased cooperation with the interviewer. Further, both interviewer and subject

self-disclosure indirectly increased the amount of information disclosed about an illegal behavior

via their effects on rapport and cooperation. This mirrors previous work finding an indirect effect

of rapport on information gain through cooperation (see Brimbal et al., 2019; Brimbal et al.,

2021; Dianiska et al., 2019). The direct effects of the disclosure manipulations on perceived

rapport were moderately sized. Other effects were smaller, notably the effects of interviewer

disclosure on cooperation as well as the indirect effects of our manipulations on information

disclosure. Although these small effects limit the strength of the potential rapport building tactics

in Experiment 1, such approaches represent only a subset of rapport building tactics that could be

used in conjunction with others to build rapport, increase cooperation, and facilitate information

collection. To build upon the most effective tactic found in Experiment 1 (subject disclosure), we

evaluated interviewer feedback to a subject's disclosure as a means to successfully develop

common ground and verify the subject's self-concept.

Experiment 2

During an investigative interview, an interviewer has the opportunity to provide

information about themselves to build rapport. Interviewers may further attempt to build rapport

by providing verbal and nonverbal feedback to a subject who discloses information to the

interviewer. In Experiment 2, we examined how interviewer feedback during the interpersonal

interview might facilitate participants' information disclosure about prior illegal behaviors.

Specifically, we manipulated whether participants received *verifying feedback* and/or *interviewer*

self-disclosure that sought common ground or highlighted dissimilarity with the participant.

When tasked with providing verifying feedback, the interviewer provided positive, confirming feedback about other aspects of the subject's self-concept that are not relevant to the illegal behavior in order to facilitate disclosure. By demonstrating that the interviewer viewed the subject consistent with how they viewed of themselves, the interviewer might develop a reputation as a verifier that would facilitate liking (Human et al., 2013). We expected that such feedback, which suggested the interviewer viewed the subject accurately, would increase rapport.

When the interviewer was tasked with providing information about themselves, they answered each question with either the same response the participant gave (similar condition) or a different response than what the participant had provided (dissimilar condition). The interviewer further sought coordination (in addition to engaging in reciprocal disclosure; see Tickle-Degnen & Rosenthal, 1990) by showing interest and seeking more information about the participant and demonstrating positive non-verbal behaviors, including leaning forward and making eye contact, in order to increase warmth (Abbe & Brandon, 2013).

The same illegal behaviors paradigm was used as in Experiment 1. We hypothesized that verifying feedback and interviewer self-disclosure would increase the amount of information disclosed during the illegal behavior interview. We further hypothesized an additive effect for the combination of verification and interviewer self-disclosure on information disclosure, should these two techniques work in tandem.

Experiment 2: Method

Participants and design. A total of 212 undergraduate psychology students (54.7% male; 77.4% Caucasian; average age $M = 19.26$, $SD = 1.34$) at a Midwestern state university in the United States participated in the present study for partial completion of course credit. The study conformed to a 2 (*Verification Feedback*: absent, present) x 3 (*Interviewer Disclosure*:

absent, present–dissimilar, present–similar) between-subjects design. Here, our target sample

size of $n = 199$ was based on power of .80 to detect a medium effect on perceived rapport ($f =$

0.20). As in Experiment 1, the primary dependent variables were the amount of perceived

rapport, decision to cooperate, and information disclosed about the most serious illegal behavior

committed previously. As a manipulation check, we also examined a dependent measure

reflecting observer ratings of participant engagement based on video recordings of the

interpersonal interview (discussed in detail below). Due to computer and video camera

malfunctions, a small number of dependent measures were missing from six participants.

Specifically, several participants had data missing from the self-report measures ($n = 2$), while

the interpersonal interview was not recorded for others ($n = 3$). In these instances, we used mean

substitution to replace the missing values as the most parsimonious method for accounting for

missing data. The results with and without these mean-substituted data points did not differ. In

addition to missing self-report data and interpersonal interview recordings, two additional

participants further did not have an illegal behaviors interview recorded. Given that the illegal

behavior interview was a critical part of the experiment, we opted to remove these two

participants in lieu of mean substituting the dependent measures that were derived from the

illegal behaviors interview. This resulted in a final total of 210 participants. Ten undergraduate

research assistants (three male, seven female) served as interviewers in Experiment 2.

Procedure. The procedures and materials were identical to Experiment 1, with the

exception of a few changes to the interpersonal interview. Each of the 18 items in the

interpersonal interview was randomly assigned as a *verification*, *interviewer disclosure*, or

control item. Interviewers never provided feedback for control items. Regardless of condition, all

interviews began with 2 questions in which the interviewer did not provide feedback; the remaining 16 items were randomly presented to participants.

Verifying Feedback. Participants were randomly assigned to receive verifying feedback. For those in the verification *present* condition, interviewers asked one of the six questions designated as verification items and responded to participants in a confirmatory manner. Specifically, they repeated the participants' answers and expressed that those answers reflected the participants' self-concept. For example, the interviewer would ask a participant, "Do you have a pet? If not, what sort of pet would you like?" The participant might respond with "a golden retriever." The experimenter would wait for the participant to respond and, then reply with, "Yeah, you strike me as a dog person." Participants assigned to the verification *absent* condition did not receive this feedback and were only asked the question (i.e., "Do you have a pet? If not, what sort of pet would you like?" only) similar to the control items.

Interviewer Disclosure. Some participants were randomly assigned to receive self-disclosure from the interviewer during the interpersonal interview. When interviewers asked one of the six questions designated as interviewer disclosure items, they responded to participants in a coordinating manner that either highlighted *similarity* with the interviewer, or highlighted *dissimilarity* with the interviewer. Specifically, in responding to a participant's answer, the interviewer would offer a question related to the response (to encourage the participant to elaborate on their answers) and then answer the question themselves by saying they had a related perspective or experience (similar) or by providing a response that was different from what the participant provided (dissimilar). The interviewer then provided positive feedback about the participant's answer (both conditions). For example, the interviewer would ask a participant, "What is your favorite thing to do to relax?" The participant might respond with "watching

Netflix." An interviewer in the *interviewer disclosure–similar* condition would reply with, "I really like to watch Netflix, too."[1] In the *interviewer disclosure–dissimilar* condition, the interviewer would reply with, "That's nice. What is it that you like about watching Netflix? I really like to read Science Fiction to relax." Participants in the *interviewer disclosure–absent* condition did not receive this additional information and were only asked the question (i.e., "What is your favorite thing to do to relax?" only), similar to the control items.

  Self-report items. Participants completed the same post-experimental questionnaire used in Experiment 1. Once again, we created two regression-based factor scores for perceptions of positive rapport and negative rapport, accounting for 51.42% and 48.38% of the variance, respectively. Both factors had items with a high loading (i.e., $\lambda > 0.70$) or acceptable loadings ($\lambda > 0.50$). Reliability analyses for items associated with the positive factor ($\alpha = .87$ [.82, .88]) and the negative factor ($\alpha = .81$ [.77, .85]) suggest the measures have good reliability. A factor score of zero represented near-average perceptions of rapport. Negative values of the factor score represented less than average perceptions of rapport, and positive values of the factor score represented higher than average perceptions of rapport.

  Finally, we created a construct to assess participants' *perceived cooperation* by generating a single regression-based factor score from two items (willingness to provide information and amount of information provided; $\alpha = .45$ [.28, .58]), with both items loading at > .54 and the factor accounting for 29.41% of the variance. Factor scores greater than zero for

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[1] Interviewers were instructed in the similarity conditions to repeat the participant's response only if they agreed with it, in order to maintain the integrity of the interaction and prevent the participant from perceiving the interaction as disingenuous. Experimenters monitored the interviews and noted if and when these deviations occurred; none were reported.