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Eliciting Information in Intelligence Contexts: The Joint Influence of Helpfulness Priming and Interview Style

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Abstract

This study investigated the influence of helpfulness priming on information disclosure. Participants (N = 115) assumed the role of an informant with information about an impending terrorist attack. Subsequently, an interviewer solicited information about the attack using an interview protocol that displayed either high (helpfulness-focused) or low (control) fit with helpfulness. Before the interview, in an ostensibly unrelated experiment, priming of participants' helpfulness was performed and we assessed cognitive helpfulness accessibility. Priming and interview style did not, individually or in combination, significantly influence information disclosure. However, follow-up analyses showed that the helpfulness-focused interview style was counterproductive—decreasing information disclosure—when interviewees' helpfulness accessibility was low. This research suggests that interview styles that do not match the interviewees' temporary (e.g., primed) or chronic (e.g., personal values) level of helpfulness motivation are potentially maladaptive and may counteract the goal of increasing information disclosure.

Keywords: *construct accessibility, disclosure, helpfulness, prime-focused interviewing, priming*

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Introduction

Extant research has shown that investigative interviewing benefits from strategic interviewing tactics that bolster an interviewer's attempts to elicit reliable information from an interviewee. Strategic interview techniques (e.g., the Scharff technique: Oleszkiewicz, 2016) usually depend on case evidence to formulate tactics that enhance information elicitation. In circumstances with scant case evidence, such tactics may be inadequate. Recent research in human intelligence interviewing (Dawson, Hartwig, & Brimbal, 2015; Dawson, Hartwig, Brimbal, & Denisenkov, 2017) has begun to explore priming of concepts that facilitate disclosure as a subtle persuasion tactic to educe information. Because priming does not rely on case evidence, it could be a useful alternative to strategic interview techniques, or an addition to the interviewer's toolkit, when there is little to no case evidence. Moreover, by activating traits or concepts that motivate the interviewee to disclose information willingly, priming affords the interviewer an opportunity to harness the interviewee's internal motivations to share information. In this research, we investigated whether priming a commonly possessed internal prosocial motivation—helpfulness—would facilitate information disclosure in an intelligence interview.

Current Theoretical Perspectives of Prime-to-Behavior Effects

The idea that priming—incidental activation of meaningful concepts—has an automatic and assimilative influence on thought and behavior has sparked debate recently (e.g., Newell & Shanks, 2014). However, discussions on the reliability of priming have birthed nuanced theoretical perspectives that explain the mechanisms of priming. Current theoretical perspectives depart from the theory of ideomotor action (Dijksterhuis & Bargh, 2001), which posits an automatic link between ideation about a concept and action.

Loersch and Payne (2014) propose the *situated inference model* to explain how priming effects occur. The model proposes that exposure to a prime first increases mental accessibility to the primed concept—the readiness and ease with which a concept comes to mind (for purposes of making judgments and decisions). Accessibility to a concept is vital because individuals are likely to draw on readily accessible concepts when making decisions instead of searching their memory exhaustively (Tversky & Kahneman, 1974). Loersch and Payne (2014) further propose that accessibility resulting from a prime is then misattributed as being self-generated rather than externally generated. Subsequently, the primed content influences the target behavior because the accessible primed content is used as a heuristic (i.e., a mental shortcut) to determine an appropriate behavior for the current situation. However, such a priming influence is most likely to occur in situations that offer high (vs. low) suitability affordances (i.e., opportunities to perform the target behavior; Loersch & Payne, 2014).

In exploring the possibility of eliciting information through helpfulness priming, we deduce from the situated inference model that (a) the priming procedure must increase the cognitive accessibility of helpfulness-related constructs and (b) the primed interviewee must be presented ample opportunity (i.e., a suitable situation) to exhibit helpfulness by disclosing information.

The Link Between Helpfulness and Information Disclosure

Social values research has shown that one's dispositional orientation toward prosociality predicts helpful behaviors such as cooperation (Van Lange, 1999). Further studies have also revealed that priming such internal orientations to be helpful promotes willingness to offer

beneficial assistance to others (Arieli, Grant, & Sagiv, 2014; Macrae & Johnston, 1998). The link between helpfulness and cooperation is particularly useful and exploitable in an intelligence interview. Rousing an interviewee's internal desire to be helpful fits neatly with an interviewer's task of soliciting information; the interviewee can exhibit helpfulness by cooperatively providing the interviewer with reliable information.

A couple of previous studies have addressed the usefulness of priming in intelligence interviews, with mixed and/or inconclusive results. First, the results of Dawson et al. (2015) suggested that priming a secure attachment in an intelligence interview may promote information disclosure. However, the reported effects were not statistically significant, and their replicability thus remains unclear. Second, Dawson et al. (2017) found that priming the concept of openness lead interviewees to be more forthcoming with information. However, because no evidence was provided that the effect was a result of increased cognitive accessibility to the openness construct, the underlying mechanisms remain unknown. The current research expands on the previous studies (a) by priming an intrinsic motivation (helpfulness) assumed to preexist in most individuals' goal repertoire, and (b) by examining the mechanisms that give rise to the influence of priming on information disclosure.

The Present Research

In the present study, participants were invited to prepare for an interview, assuming the role of a police informant who possesses information about an impending terrorist plot. Before the interview, in an ostensibly unrelated study, we primed the helpfulness motivation of half of the participants (controls received no helpfulness-related priming) and the cognitive accessibility to helpfulness-related content was assessed. Subsequently, participants were interviewed about the terrorist plot. We predicted that participants primed with helpfulness would disclose more information in the interview than control participants (Hypothesis 1).

Interview Styles as Situational Affordances

As discussed previously, it has been proposed that situational affordances drive the manifestation of priming effects; that is, high (vs. low) suitability affordances are more likely to promote behavioral assimilation to primed concepts (Loersch & Payne, 2014). We thus propose that a prime-focused interview style, which draws on the primed content, is more likely to enhance information elicitation compared to an interview style unrelated to the prime, because the former offers more suitable situational affordances. Hence, we implemented two interview protocols that served as proxies for high and low suitability affordances; a helpfulness-focused and a control interview protocol. The helpfulness-focused protocol was designed to establish a link between helpfulness and information disclosure by making it readily apparent to the interviewee that helpfulness can be exhibited by sharing reliable information. Moreover, in line with exuding high fit with helpfulness, the helpfulness-focused protocol opened with an expression of empathy and emphasis of the interviewee's autonomy. Previous research indicates that an empathic understanding of the requester's needs (Small & Simonsohn, 2008) and an emphasis on autonomy (Weinstein & Ryan, 2010) encourage people to enact helpful behaviors. The control interview protocol, on the other hand, consisted of straightforward and direct questions. We predicted an interaction between priming and interview style. Specifically, we expected that the effect of helpfulness priming would be stronger when combined with the helpfulness-focused (vs. control) interview style (Hypothesis 2).

Finally, based on the theoretical proposition that construct accessibility mediates behavioral priming effects, we expected that helpfulness accessibility would mediate the impact of helpfulness priming on information disclosure. Put simply, we hypothesized that helpfulness priming will increase disclosure by increasing helpfulness accessibility (i.e., the ease with which helpfulness comes to mind). However, because the priming effect was expected to be moderated by interview style (see above), we predicted a conditional mediation effect; the mediating role of accessibility would be stronger in the helpfulness-focused (vs. control) interview condition (Hypothesis 3). Figure 1 illustrates the proposed conditional mediation.

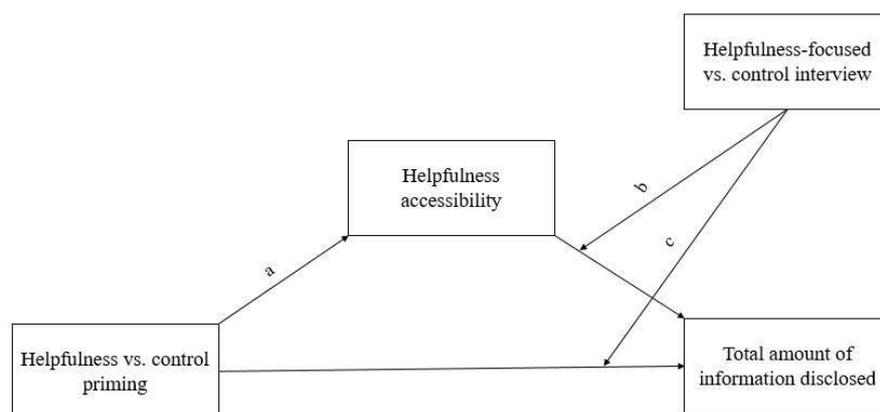


Figure 1. Conceptual model of the conditional mediation illustrating the relationships between priming, interview style, total amount of information disclosed, and helpfulness accessibility.

Method

Participants and Design

One hundred and twenty participants, consisting of community members (41.7%) and university students (58.3%), with an average age of 28.88 years ($SD = 10.21$) participated in the study. The sample comprised 84 females. We used a 2 (priming: helpfulness vs. control) \times 2 (interview style: helpfulness-focused vs. control) between-groups design. Random assignment produced a distribution of between 28 and 33 participants in each cell of the design. Participants were compensated with a movie ticket worth 90 SEK (~ 10 USD). Five participants were excluded from the analyses because of a high discrepancy (> 10 information units) between their subjective and actual information disclosure (see Phase 4 below). Such discrepancy possibly reflects confusion between intended and actual information disclosure. The final sample thus consisted of 115 participants. A sensitivity analysis indicates that a sample of this size provides a 75% power to detect an effect of $d = .50$ at the .05 significance level. Based on previous research, examining the interaction between helpfulness priming and situational affordances on helpfulness (i.e., Macrae & Johnston, 1998) and the influence of helpfulness priming on helpfulness values (Arieli et al., 2014, Experiment 1), it is reasonable to expect an effect size of $d = .50$ or higher.

Procedure and Materials

The procedures in this study were guised to appear as two independent studies in order not to give the experimental hypotheses away. Participants were informed that they would be participating in two separate studies. In the first study, we told participants that we examined the efficacy of a range of interview techniques. In the second study, containing the priming

manipulation, participants were told that we explored individual differences in language use and communication.

Phase 1: Background and planning.

In this study, we used the same background and planning materials as designed by Oleszkiewicz, Granhag, and Cancino Montecinos (2014). All participants were instructed to assume the role of a police informant with some information about an impending terrorist attack. Participants were provided with a booklet containing incomplete information about a terrorist plot by a left-wing extremist group. The information was presented in a coherent storyline consisting of 37 distinct pieces of information. To prevent floor and ceiling effects, participants were told to economize with the information during the interview using the instructions of Oleszkiewicz et al. (2014): They must (a) not provide too little information (assisting the police was necessary to be granted free passage out of the country), and (b) not provide too much information (since participants were to imagine having strong ties to the extremist group). These instructions have been shown to successfully induce competing motivations to disclose and to withhold information (see Oleszkiewicz, 2016). Following Oleszkiewicz et al. (2014), we offered participants the possibility of earning an extra movie ticket if they economized information effectively. In truth, however, all participants received a single movie ticket. Participants were allowed to provide untruthful information during the interview.

Phase 2: Priming.

After participants indicated completion of Phase 1, they were invited to complete the alleged second study: Because the police-contact was going to conduct the interview a little while later, completing the second study while they waited would save time. No participant objected to this. The priming phase was computerized.

Consistent with the guise that this alleged experiment was to examine individual differences in language and communication, we told participants that they would be writing down certain guided thoughts. Those in the *helpfulness* condition were instructed to think about and visualize a time when they had been helpful. As part of the reflection and visualization exercise, we instructed participants to focus on their internal state right *before* they had offered their help, instead of writing about the already completed action. Liberman, Förster, and Friedman (2007) posit that post-attainment decrements in motivation impact goal-priming effects. Thus, instructing participants to focus on their precipitating internal state was to mitigate such post-attainment decrease in helpfulness motivation. Correspondingly, participants in the *control* condition reflected on a neutral topic: their morning routine. We instructed participants to reflect on their regular morning routine and visualize their usual preparations to commence each day. Next, participants presented their reflections. In both conditions, a total of five minutes was apportioned for reflection and writing: mandatory two and half minutes and optional two and half minutes if necessary. We inspected participants' written reflections to ensure that they had adhered to the instructions. All participants in the helpfulness condition, indeed, wrote about their internal states before various instances where they had offered help. All participants in the control condition wrote about morning routines that were relatively neutral to helpful behaviors¹.

¹We conducted extensive awareness assessments of the priming manipulation's influence on information disclosure following Newell and Shanks's (2014) recommendations. No participant indicated awareness of the priming influence.

After the priming, we assessed helpfulness accessibility with an implicit measure—a word-fragment/stem completion task. All participants completed the same task and had a maximum of 10 seconds to complete each word-fragment. The ten-second time cap was implemented to prevent extensive deliberation during the word completions. The word-fragments included words that had either specific letters missing or incomplete word stems. In all, the word-fragment/stem completion material consisted of 40 word-fragments, 20 of which could be completed to form words related to helpfulness, and 20 of which were neutral with regard to helpfulness. Both helpfulness-related and neutral word-fragments could be completed with a diverse range of words. We presented a single word at a time and participants had to input their word of choice in a text box below each word fragment. A score of one point was assigned when a word-fragment was completed with a word related to helpfulness and zero when completed with an unrelated word. Higher scores thus indicated stronger helpfulness accessibility. See supplemental material for priming instructions and list of word-fragments.

Phase 3: The Interview.

All participants were interviewed approximately three minutes after priming and were allowed to consult notes they had prepared in Phase 1 during the interview². There was no need for any participant to memorize the background information; we implemented this to eliminate potentially confounding memory effects. The interviewer initiated contact with the participant via an audio Skype call. Each interview was recorded for the purposes of data analysis. The length of individual interviews ranged from 140 to 554 seconds. An independent-samples *t*-test showed that the average helpfulness-focused interview ($M = 317.37$, $SD = 78.03$) lasted significantly longer than the average control interview ($M = 264.91$, $SD = 100.01$), $t(113) = 3.10$, $p = .003$, $d = 0.59$, 95% CI [.22, .67]. A possible contribution to this difference was the length of the introduction and questions used in the helpfulness-focused interview. The appendix contains the full interview protocols.

Helpfulness-focused interview.

The interviewer began the interview with an introduction, noted the purpose of the call, and empathized with the informant's dilemma. Next, the interviewer pointed out that s/he could not let the attack happen. Furthermore, s/he emphasized the interviewee's autonomy in deciding what information to share. After the introduction, the interviewer asked three non-directive open-ended questions. Each question contained a cue that suggested that helpfulness could be demonstrated by disclosing information. The first question solicited details about the terrorist plot: "We hope you can *help us* by providing details about the plans for the upcoming attack...". The next question requested additional information about the attack. The final question probed for further information that the interviewee may have omitted. The interviewer ended the interview after the third question.

Control interview.

In this condition, the interviewer took a matter-of-fact and direct approach. There were no

² It should be noted that the interviews were conducted in Swedish. Thus, the descriptions of the interview protocols are estimated English translations. All the questions were structurally open-ended in the Swedish language. Moreover, inspection of individual interviews reflected forethought in all of the responses. No participant responded to any of the questions by saying just "yes" or "no".

cues for the informant to make a connection between helpfulness and information disclosure. The interviewer introduced her-/himself, explained the nature of the interview, informed the informant about the purpose of the call, and asked three non-directive open-ended questions. The first question requested for details about plans for the attack: "You can start by telling us what you know about this attack". When the informant finished speaking, the interviewer asked the next question, which solicited additional information. Finally, the interviewer probed for omitted information and ended the interview afterward.

Interviewers.

We trained two interviewers, a female and a male, to conduct the interviews. The two interview protocols were evenly distributed between the interviewers. Additionally, both interviewers were instructed to follow the interview protocols strictly. None of the interviewers improvised in any of the interviews. Both interviewers were blind to the priming condition of the participant.

Phase 4: Post-Interview Questionnaires.

After the interview, each participant completed a post-interview questionnaire on a computer. All participants were informed that they had now completed the role-taking part of the study, and were to answer the questionnaire truthfully.

First, we provided two separate but identical checklists with all the 37 units of information that were in the background and planning information. In the first checklist, we instructed participants to mark the specific information they had revealed to the interviewer. This measure was intended as a reliability check for consistency with the actual information that was disclosed. In the second checklist, participants were to mark the information they believed the interviewer was likely to have had prior to the interview. This measure was implemented to examine whether participants' perceptions of the interviewer's prior information was influenced by the interview protocols.

Next, we presented a series of statements to be rated on separate 11-point continuous scales (0-10). Participants provided a retrospective rating of how much information they perceived to have disclosed to the interviewer (0 = *no information*, 10 = *all of the information*). We implemented this measure to examine whether participants perceived qualitative differences in the amount of information they disclosed (analyses of these data are presented in the supplemental material). Participants then rated the extent to which they were motivated to be helpful to the interviewer by disclosing information during the interview (0 = *not motivated at all*, 10 = *very motivated*). Some additional variables were included for exploratory purposes and their analyses are presented in the supplemental material.

Coding of interviews.

All interviews were transcribed verbatim. Each transcript was coded for the number of information units disclosed (range: 0–37). When a piece of information was disclosed more than once, it was counted as one unit of information. Incorrect and/or fabricated information was counted but not included in the quantity measure. Thirty-eight (33%) of the transcribed interviews were randomly selected and coded separately by two coders. Reliability analysis indicated that inter-rater reliability was excellent (Cohen's $\kappa = 0.91$). The assistants discussed and settled minor

disagreements for the thirty-eight transcripts after reliability analysis. One of the coders coded the remaining 67% of transcripts.

Results

Main Analyses

We tested our focal predictions using Hayes's (2013) PROCESS macro for SPSS, which generates estimates of parameters with 95% bias-corrected confidence intervals (BCa CI) using the bootstrapping method. The bootstrapping method generates more accurate estimates than the normal theory approach when the characteristics of a statistic over repeated sampling are relatively unknown (Hayes, 2013). Such uncertainty exists in the current setting as, to our knowledge, this research is the first to explicitly examine (a) the interaction between priming and prime-focused interviewing on information disclosure and (b) the mediating role of construct accessibility in such priming effects. In addition, we implemented bootstrapping procedures in light of the reduced power of the final sample size. The bootstrapping method is relatively more useful and provides more accurate effect estimates than the normal theory approach in smaller samples (Hayes, 2013; Wood, 2005). Moreover, the bootstrapping statistical procedure makes no assumptions about the shape of a sample distribution and is therefore robust against any irregularities in the sample distribution (See Hayes, 2013, p.105).

Moderation analyses .

We first examined the main effect of priming and the Priming \times Interview Style interaction on the amount of information disclosed in a moderation analysis (PROCESS model 1) with 5,000 bootstrapped samples. Following Hayes's (2013, p. 277) suggestion, condition variables were effect coded before the analyses (-0.5 = control priming, 0.5 = helpfulness priming; -0.5 = control interview, 0.5 = helpfulness-focused interview). The main effects of priming ($b = -0.56$, $SE = 0.69$, $p = .414$, 95% BCa CI [-1.92, 0.80]) and interview style ($b = -0.50$, $SE = 0.69$, $p = .461$, 95% BCa CI [-1.87, 0.85]) were not significant. The former shows that Hypothesis 1 did not receive support, as priming helpfulness did not have a significant direct influence on the amount of information disclosed. In addition, the interaction between priming and interview style was not significant, $b = -1.40$, $SE = 1.37$, $p = .311$, 95% BCa CI [-4.12, 1.32]. Hence, Hypothesis 2 was not supported. Descriptive statistics are reported in Table 1.

Mediation analysis.

We conducted a conditional mediation analysis with 5,000 bootstrapped samples (PROCESS model 15) to examine Hypothesis 3. The mediation analysis was conducted despite the previous null findings because it has been argued that indirect effects should be estimated based on a formal mediation test rather on tests of individual paths in the proposed mediation model. Hayes (2013, p. 168-170) has posited that a null total main effect does not prevent the existence of a significant mediation effect. This is because a total main effect is an aggregate of the direct effect and all of the possible, positive and negative, indirect effects that connect an independent variable to a dependent variable (see also Rucker, Preacher, Tormala, & Petty, 2011). Indeed, scholars have proposed that priming effects typically consist of multiple mechanisms (Wheeler & DeMarree, 2009)

The priming [and interview style] variable was dummy coded (0 = control priming [control interview], 1 = helpfulness priming [helpfulness-focused interview]) before the analysis. Helpfulness accessibility was maintained in its original metric. Path labels in the following results correspond to the naming convention used in Figure 1.

The effect of priming on helpfulness accessibility (path a in Figure 1) was not statistically significant by conventional standards, $b = 0.66$, $SE = 0.37$, $p = .075$, 95% BCa CI [-0.07, 1.39]. Consistent with the previous moderation analyses, the interaction between priming and interview style (c) was not significant, $b = -1.96$, $SE = 1.37$, $p = .156$, 95% BCa CI [-4.69, 0.76]. The Helpfulness Accessibility \times Interview Style interaction (b) was, however, significant, $b = 0.78$, $SE = 0.34$, $p = .027$, 95% BCa CI [0.09, 1.47]. Conditional effects analyses revealed that at low levels of helpfulness accessibility ($-1 SD$) the helpfulness-focused (vs. control) interview style had a negative effect on information disclosure, $b = -1.91$, $SE = 0.96$, $p = .048$, 95% BCa CI [-3.80, -0.01]. The effect of the helpfulness-focused (vs. control) interview style at high levels of helpfulness accessibility ($+1 SD$) was positive, but the effect was not statistically significant, $b = 0.91$, $SE = 0.97$, $p = .350$, 95% BCa CI [-1.01, 2.82]. Figure 2 depicts the full interaction.

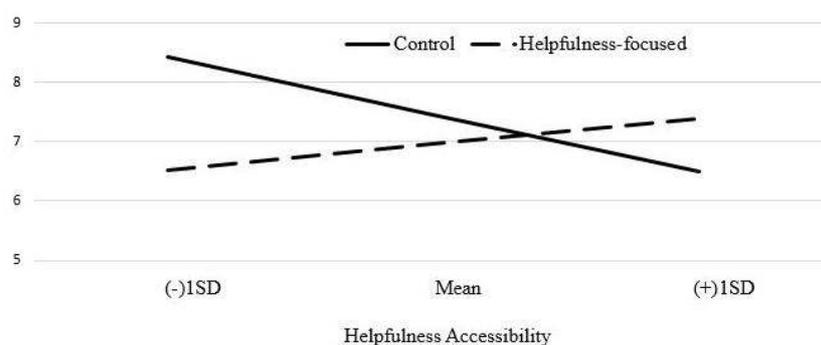


Figure 2. Information disclosed as a function of helpfulness accessibility (M, [+/- 1SD]) and interview style (helpfulness-focused vs. control).

The indirect effect of helpfulness priming, via helpfulness accessibility, on total information disclosed was negative and statistically significant among participants who were interviewed using the control interview style, $b = -0.34$, 95% BCa CI [-1.03, -0.01]. This finding indicates that an increased helpfulness accessibility following the helpfulness priming was associated with a reduced amount of disclosed information when participants were interviewed using the control interview protocol. Among participants interviewed with the helpfulness-focused interview style, the indirect effect of priming through helpfulness accessibility was positive but not significant, $b = 0.16$, 95% BCa CI [-0.17, 0.82].

Taken together, the results of the mediation analysis were only partially consistent with Hypothesis 3. The predicted positive indirect effect of helpfulness priming, via helpfulness accessibility, on information disclosure was not statistically significant for participants interviewed using a prime-consistent (i.e., helpfulness-focused) interview style. Instead, the indirect effect was significantly negative for participants interviewed using a prime-inconsistent (i.e., control) interview style. Thus, whereas the relative direction of the indirect effects were as expected (i.e., more positive when the prime and the interview style matched), only the negative indirect effect in the mismatching scenario differed significantly from zero. As indicated by the Helpfulness Accessibility \times Interview Style interaction, this appears to be due mainly to the negative effect of failing to interview participants with high helpfulness accessibility with a helpfulness-focused interview style.

Exploratory Analyses

We explored the effects of priming, interview style, and their interaction, as well as the Helpfulness Accessibility \times Interview Style interaction, on helpfulness motivation self-reports. Both moderation analyses were conducted with 5,000 bootstrapped samples. Overall, helpfulness motivation was positively and significantly correlated to information disclosure, $r = .29$, $p = .002$, 95% CI [0.12, 0.45]. The main effects of priming ($b = 0.03$, $SE = 0.38$, $p = .933$, 95% BCa CI [-0.71, 0.77]) and interview style ($b = 0.32$, $SE = 0.38$, $p = .393$, 95% BCa CI [-0.42, 1.06]) on participants' motivation to be helpful were not statistically significant. Moreover, the interaction between priming and interview style was not significant at the .05 level, $b = 1.41$, $SE = 0.75$, $p = .063$, 95% BCa CI [-0.08, 2.89]. However, the Helpfulness Accessibility \times Interview Style interaction was significant, $b = 0.40$, $SE = 0.19$, $p = .036$, 95% BCa CI [0.03, 0.77]. Conditional effects analyses showed that at high levels of helpfulness accessibility (+1 SD), the effect of the helpfulness-focused (vs. control) interview style was positive and significant, $b = 1.16$, $SE = 0.53$, $p = .031$, 95% BCa CI [0.11, 2.20]. Conversely, though not statistically significant, at low levels of helpfulness accessibility (-1 SD) the helpfulness-focused (vs. control) interview style had a negative but not significant effect, $b = -0.43$, $SE = 0.53$, $p = .416$, 95% BCa CI [-1.47, 0.61].

Discussion

Overall, our findings did not show a direct influence of helpfulness priming, interview style, or their interaction on information disclosure. However, helpfulness priming had a negative indirect effect on information disclosed, through helpfulness accessibility, when participants were interviewed using the control interview style. Moreover, the helpfulness-focused interview style had a negative impact on information disclosure when the interviewees' helpfulness accessibility was low. The situated inference model (Loersch & Payne, 2014), which chiefly informed the design of this study, cannot fully account for the findings. The model would have predicted increased information disclosure when helpfulness accessibility and interview style matched, but not a negative influence when there was a mismatch. Hence, in the following discussion, we will draw on tenets of the interpersonal octagon (Birtchnell, 1994), which takes into account the interviewer–interviewee interpersonal dynamics thereby elucidating the unpredicted priming influences observed in this study.

At the heart of Birtchnell's (1994) interpersonal octagon is the proposition that one can employ either a constructive (adaptive) or unconstructive (maladaptive) interpersonal approach when pursuing a goal that requires interaction with another individual. For instance, in the case of a conflict between two individuals, the aggrieved person can *adaptively* communicate their grievances with a specific and clear message that highlights the root cause of their anger, or communicate their grievance *maladaptively* by slandering the other individual. Adaptive and maladaptive relating varies around eight octants, the most relevant of which indicate relating styles that signal dominance (i.e., upperness) or submission (i.e., lowerness).

In terms of interpersonal relating styles, the helpfulness-focused interview style may have signaled submissiveness on behalf of the interviewer and invited the interviewee to assume dominance (e.g., "We hope you can *help us* by providing details about the plans for the upcoming attack"). We suggest that for participants with low levels of helpfulness accessibility, the helpfulness-focused interview protocol may have functioned maladaptively; that is, inviting the interviewee to assume dominance (i.e., cooperate and provide information, cf. Birtchnell, 1994, p.

517) when their helpfulness was at best sparsely accessible may have been counterproductive. In fact, such interviewees may have perceived the helpfulness-focused interview style as needy and insecure. Birtchnell (1994) notes that an insecure and forced (i.e., egocentric) interpersonal approach, which does not consider the current state of the other relator, is likely to elicit resistance. In the arena of investigative interviewing, Alison, Alison, Noone, Elntib, and Christiansen (2013) have found that even minimal displays of maladaptive interpersonal behavior by interviewers reduced information disclosure by interviewees. Possibly, there are subtle distinctions between adaptive empathetic approaches (Alison et al., 2013) and maladaptive submissive approaches (observed in the current research) that are currently not fully understood. Future research is needed to explore these distinctions.

In contrast, among those interviewed with the control interview protocol, helpfulness priming negatively influenced information disclosure, seemingly mediated by increased helpfulness accessibility. In terms of the interpersonal octagon, the control interview protocol can be categorized under the dominance interpersonal approach. Here, the interviewer assumed dominance by setting the agenda and asking straightforward questions (e.g., “You can start by telling us what you know about this attack”). Thus, it is possible that primed interviewees, who experienced increased helpfulness accessibility and were predisposed to help the interviewer by providing information, perceived such a dominant approach as maladaptive (i.e., overly dominating, rigid, and demanding). This suggests that activating construct accessibility through priming may hamper information disclosure when the interview protocol is not adapted to the primed construct. The latter finding should, however, be interpreted with caution. Since the effect of priming on helpfulness accessibility was not statistically significant by conventional standards, interviewees’ variation in helpfulness accessibility may have been due also to more stable, preexisting sources (e.g. prosocial values), which may have given rise to perceptions of the interview style as adaptive or maladaptive.

Alison et al. (2013) have called on investigative interviewers to be versatile in their interpersonal approach, instead of using a predetermined ‘technique’. The scripted nature of the interview protocols used in this research is not typical of actual intelligence interviewing, and we acknowledge that this limits the external validity of this work. Ideally, an interviewer in real-life would probably be more sensitive to the reactions of the interviewee, follow up on responses, and ask probing questions. However, the scripted and non-directive questions were implemented deliberately in order to ensure internal validity and interviewer equivalence across conditions. Nonetheless, future studies examining the interaction between priming and directive prime-focused follow-up questions as well as semi-structured interview protocols would advance insights on subtle influences on disclosure in intelligence interviews.

Limitations

There is an important limitation in the present research that it is worth highlighting. The assessment of helpfulness accessibility (i.e., word-fragment completion task) where all participants self-generated helpfulness-related (and neutral) words could have accidentally primed helpfulness among those in the control priming condition. We acknowledge this limitation and note that such contamination effects may have particularly obscured our efforts to examine the main effect of the helpfulness (vs. control) priming on information disclosure. Nevertheless,

³The priming manipulation and the word-fragment task we used in this study has successfully distinguished helpfulness accessibility levels between helpfulness and control priming conditions in previous experiments. Thus, random sampling variability may have contributed to the observed null effect of the priming manipulation on helpfulness accessibility

previous research have found that different sources of construct accessibility can influence behavior additively (Bargh, Bond, Lombardi, & Tota, 1986; Higgins and Brendl, 1995). As participants in the helpfulness priming condition self-generated more helpfulness-related words compared to the control group we expected that both sources of helpfulness accessibility (i.e., priming manipulation and self-generated words) would combine additively for a larger main effect of the helpfulness priming³. Future research should employ measures of construct accessibility that assess the impact of priming with little possibility of contaminating the main effect of priming on information disclosure. It is also worth noting that no participant expressed awareness of the intended influence of the priming manipulation or a connection between the alleged separate experiments. Hence, it is unlikely that awareness of the priming influence played a role in the current findings.

It is important to acknowledge that the possibility to prime helpfulness in certain populations—for example, extremist terrorists—is unknown. However, to our knowledge, there is no conclusive evidence that terrorists are, indeed, extremely resistant to influence. On the contrary, Dalgaard-Nielsen (2013) has proposed that subtle influence strategies may be used to reduce extremists' resistance to persuasion. Moreover, intelligence interviewees could range from hardline terrorists to ordinary individuals (which our sample represents to a degree) who may possess potentially useful information (e.g., about gang activity). Thus, even if terrorists were, in general, resistant to helpfulness priming, valuable improvements in information gain could be achieved by priming ordinary individuals without a terrorist ideology. Additionally, some evidence suggests that the typical intelligence interviewee is motivated to share at least some information (Herbig, 2008; Soufan, 2011). Hence, such interviewees are usually semi-cooperative and have some vested interests in offering some beneficial assistance (i.e., motivated to be helpful) to an interviewer. In that light, it is reasonable to predict that such helpfulness motivations may be increased through helpfulness priming.

Implications

As mentioned earlier, previous research has found that priming disclosure-related motivations may promote information disclosure in intelligence interviews (e.g., Dawson et al., 2015; Dawson et al., 2017). This research, however, suggests that under certain conditions priming tactics could be potentially counterproductive to the goal of increasing disclosure. Specifically, results in this study call for interviewers to be especially cautious about implementing an interview approach that aims to draw on an interviewees' temporary (e.g., primed) or chronic (e.g., personal values) dispositions. Our findings suggest that such an attempt, when the interviewee is not sufficiently predisposed to the motivation of interest (e.g., when construct accessibility is low), may be detrimental. Indeed, the emerging research examining priming influences in intelligence interviews is still in infancy. Thus, further high-powered replications and theoretical extensions (e.g., using semi-structured interviews) of the current findings are needed to fully uncover the nuanced interplay between priming and interpersonal dynamics in an intelligence interview. These would contribute toward accurately determining the potential utility of priming in real-world interviews.

Conclusions

This work revealed no evidence that helpfulness-priming and helpfulness-focused interviewing jointly influence information disclosure in a straightforward manner. The study,

however, provides initial empirical evidence regarding when and how activating a commonly possessed motivation—helpfulness—may discourage information disclosure. The results show that interviewing with a helpfulness-focused interview style, which draws on helpfulness accessibility, could be a maladaptive interpersonal approach to eliciting information when helpfulness accessibility is lacking.

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Appendix

Interview Protocols

Helpfulness-focused Interview

Introduction and first question.

Yes, hello, this is Kim was from the police. I called to talk to you about the planned bomb attack. Are you okay?

Okay, shall we go over to what we are going to talk about?

First, I want to emphasize that I understand that you are in a difficult situation. At the same time, you do understand that we cannot allow this deed to be executed. Therefore, I want to begin by explaining what I want to achieve with this conversation. I believe in collaborations and will not put any pressure on you, but will let you decide what information you can give me. Therefore, I will only ask a few open questions. When you feel you cannot give anything more, we will end the conversation. We hope you can *help us* by providing details about the plans for the upcoming attack. Please tell me what you know about this attack.

Second question .

Thanks, that was *helpful*. I feel that this cooperation can really *help us* understand more about the attack. It would be really *helpful* if you had something more you could add.

Third question.

As I mentioned earlier, I want you to know what you can expect when you talk to me, and I feel that we have something good going on here. So, before we finish this interview, is there any additional information that you can *help us* with? You might have just remembered something more?

Closing line.

Thank you for taking the time. The interview is now over.

Control Interview**Introduction and first question.**

Yes, hello, this is Kim was from the police. I called to talk to you about the planned bomb attack. Are you okay?

Okay, shall we go over to what we are going to talk about?

I have a few questions that I want you to answer. You can begin by telling us details about the upcoming attack.

Second question.

Thanks, is there anything more you can tell us? Perhaps you remembered something more?

Third question.

So, before we conclude, is there any more information you can add for our investigation? If there is anything else you can remember.

Closing line.

Thank you for taking the time. The interview is now over.

Priming Material**1. Helpfulness priming***

Think about a time you wanted to offer your help to someone and/or something (e.g. a person, an animal, an organisation etc.). Now take a moment to visualize that time as vividly as possible. Think about how you were feeling and what you were thinking about **RIGHT BEFORE** offering your help. Think of yourself in that situation again right now.

2. Neutral priming*

Think about your regular morning routine. What do you do as part of your preparations for the day? Now take a moment to visualize your routine as vividly as possible.

*Present your reflections in the text box below.

Target Words to Assess Helpfulness Accessibility

Helpfulness related words

1. B _ STÅ (**BISTÅ/BESTÅ**) **Assist (v.)** / remain (v.)
2. STÖ __ A (**STÖDJA/STÖRTA**) **Support (v.)** / crash (v.)
3. G _ N _ A (**GYNNA/GUNGA**) **Benefit (v.)** / swing (v.)
4. FRÄ __ A (**FRÄMJA/FRÄCKA**) **Aid (v.)** / cheeky (adj.)
5. G _ (**GE/GÅ**) **Give (v.)** / walk (v.)
6. D __ ERA (**DONERA/DATERA**) **Donate (v.)** / date (v.) as in specify in time
7. S _ Ä _ KA (**SKÄNKA/SLÄCKA**) **Give (v.)** / put out (v.) e.g., a fire
8. TR __ TA (**TRÖSTA/TRÖTTA**) **Comfort (v.)** / tired (adj.)
9. GENER __ (**GENERÖS/GENERAD**) **Generous (adj.)** / embarrassed (adj.)
10. V _ NLIG (**VÄNLIG/VANLIG**) **Friendly (adj.)** / common (adj.)
11. _ DEL (**ÄDEL/IDEL**) **Gentle (adj.)** / sheer (adj.)
12. S __ LL (**SNÄLL/SKALL**) **Kind (adj.)** / shall (v.)
13. OMTA __ _ (**OMTANKE/OMTALAD**) **Care (n.)** / renowned (adj.)
14. SYMP __ _ (**SYMPATI/SYMPATOM**) **Sympathy (n.)** / symptom (n.)
15. GO __ ET (**GODHET/GOLVET**) **Benevolence (n.)** / the floor (n.)
16. _ UPP __ T (**SUPPORT/GUPPIGT**) **Support (n.)** / bumpy (adj.)
17. ST _ D (**STÖD/STAD**) **Support (n.)** / town (n.)
18. OMS __ _ (**OMSORG/OMSLAG**) **Care (n.)** / cover (n.)
19. GÅ _ A (**GÅVA/GÅTA**) **Gift (n.)** / riddle (n.)
20. H _ N __ N (**HÄNSYN/HANDEN**) **Consideration (n.)** / the hand (n.)

Neutral words

1. O _ D (**ORD/OND**) **Word (n.)** / Evil (adj.)
2. SI _ A (**SIDA/SILA**) **Side (n.)** / Filter (v.)
3. TI _ TA (**TITTA/TILTA**) **Look (v.)** / Tilt (v.)
4. P _ AT _ (**PLATS/PRATA**) **Place (n.)** / Talk (v.)
5. H _ ND (**HAND/HUND**) **Hand (n.)** / Dog (n.)
6. A __ RA (**ANDRA/AGERA**) **Other (adj.)** / Act (v.)
7. __ _ TI (**INUTI/PARTI**) **Inside (adv.)** / Party (n.) as in politics
8. HÄ _ (**HÄR/HÄL**) **Here (adv.)** / Heel (n.)
9. __ _ ISKOR (**MÄNNISKOR/GUMMISKOR**) **People (n.)** / Rubber shoes (n.)
10. GR _ P _ (**GRUPP/GRIPA**) **Group (n.)** / Seize (n.)
11. __ _ ETAG (**FÖRETAG/ANDETAG**) **Company (n.)** / Breath (n.)
12. ST _ (**STÅ/STO**) **Stand (v.)** / Mare (n.)

13. __ AG (DRAG/SVAG	Pull (n.) /Weak (adj.)
14. _ ÄN _ ELSE (HÄNDELSE/FÄNGELSE	Event (n.) /Prison (n.)
15. B __ D (BILD/BAND	Picture (n.) / Band (n.) as in playing music
16. _ LAN _ ERA (PLANTERA/FLANKERA	Plant (v.) /Flank (v.)
17. _ OLV (GOLV/KOLV	Floor (n.) /Piston (n.)
18. L __ D (LJUD/LAND	Sound (n.) /Country (n.)
19. GLA _ (GLAS/GLAD	Glass (n.) /Happy (adj.)
20. S _ EN (STEN/SKEN	Rock (n.) /Light (n.) as in light in the sky

Supplementary Analyses

Consistency

We examined consistency between (a) the specific information units participants reported to have disclosed in the post-interview questionnaire (b) the information units they actually disclosed in the interview and (c) their subjective rating of the amount of information they had disclosed. Correlation analyses indicated high consistency. The relation between the specific information participants identified to have disclosed and information identified through independent coding of the interviews was highly significant, $r = .81$, $p < .001$, 95% CI [.74, .87]. The relation between perceived amount of information disclosed and the actual amount of information disclosed was also significant, $r = .53$, $p < .001$, 95% CI [.38, .65]. In addition, we examined whether information perceived to be possessed by the interviewer varied significantly between the conditions. This was examined in a Priming \times Interview Style moderation analysis; No significant effects emerged, all $ps > .223$. Descriptive statistics are reported in Table 1.

Moderation analyses of self-report measures

We explored the effects of priming, interview style, and their interaction, as well as the Helpfulness Accessibility \times Interview Style interaction, on perceived interviewer sympathy and likelihood to submit to a repeat interview. Each moderation analyses were conducted with 5,000 bootstrapped samples. As recommended by Hayes (2013, p. 277) the priming [and interview style] variable was effect coded ($-0.5 =$ control priming [control interview], $0.5 =$ helpfulness priming [helpfulness-focused interview]) before running each Priming \times Interview Style interaction analysis. In the Helpfulness Accessibility \times Interview Style interaction analyses, the helpfulness accessibility variable was maintained in its original metric and the interview style variable was dummy coded ($0 =$ control interview, $1 =$ helpfulness-focused interview).

Perceived interviewer sympathy. Perceived interviewer sympathy ratings ($0 =$ not sympathetic at all, $10 =$ very sympathetic) was not significantly correlated to information disclosure, $r = .10$, $p = .285$, 95% CI [-0.08, 0.28]. The main effect of priming on perceived interviewer sympathy was negative and significant, $b = -1.12$, $SE = 0.50$, $p = .028$, 95% BCa CI [-2.12, -0.12]. Participants in the helpfulness priming condition ($M = 4.74$, $SD = 2.80$) perceived the interviewer as less sympathetic compared to those in the control priming condition ($M = 5.68$, $SD = 2.86$). The main effect of interview style, on the other hand, was positive and significant, $b = 1.54$, $SE = 0.50$, $p = .003$, 95% BCa CI [0.54, 2.53]. Participants interviewed using the helpfulness-focused interview style perceived the interviewer as more sympathetic ($M = 5.89$, $SD = 2.54$) compared to those in the control interview condition ($M = 4.42$, $SD = 3.02$). The Priming \times Interview Style interaction was also significant, $b = 2.21$, $SE = 1.01$, $p = .030$, 95% BCa CI [0.21, 4.20]. Conditional effects analyses revealed that priming had a significant negative effect among

participants in the control interview condition, $b = -2.22$, $SE = 0.74$, $p = .003$, 95% BCa CI [-3.69, -0.76]. This indicates that the negative effect main effect of priming on perceived interviewer sympathy was driven mainly by the control interview protocol. The effect of priming was not significant among participants in the helpfulness-focused interview condition, $b = -0.02$, $SE = 0.68$, $p = .979$, 95% BCa CI [-1.37, 1.34]. The Accessibility \times Interview Style interaction was not statistically significant, $b = 0.49$, $SE = 0.26$, $p = .063$, 95% BCa CI [-0.03, 1.00].

Likelihood to submit to a repeat interview. Participants' ratings of the extent to which they would agree to be interviewed again (0 = *not likely at all*, 10 = *very likely*) was not significantly correlated to information disclosure, $r = .05$, $p = .616$, 95% CI [-0.15, 0.24]. The main effects of priming ($b = -0.71$, $SE = 0.50$, $p = .157$, 95% BCa CI [-1.70, 0.28]) and interview style ($b = 0.45$, $SE = 0.50$, $p = .371$, 95% BCa CI [-0.54, 1.44]) on likelihood to agree to be interviewed again were not significant. The interaction between priming and interview style bordered on significance, $b = 1.97$, $SE = 0.99$, $p = .051$, 95% BCa CI [-0.01, 3.95]. Conditional effects analyses showed that priming had a significant negative effect when participants were interviewed using the control interview protocol, $b = -1.70$, $SE = 0.73$, $p = .023$, 95% BCa CI [-3.15, -0.24]. The effect of priming was positive when the helpfulness-focused interview protocol was used but the effect was not significant, $b = 0.27$, $SE = 0.67$, $p = .689$, 95% BCa CI [-1.07, 1.62]. The Helpfulness Accessibility \times Interview Style interaction failed to achieve statistical significance, $b = 0.37$, $SE = 0.26$, $p = .145$, 95% BCa CI [-0.13, 0.88].