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Facilitating Disclosure in Intelligence Interviews: The Joint Influence of Helpfulness Priming and Interpersonal approach

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Correspondence to: David Amon Neequaye, Department of Psychology, University of Gothenburg. Box 500, 405 30 Gothenburg, Sweden; Email: david.neequaye@psy.gu.se This study examined the joint influence of helpfulness priming and a helpfulness-focused interpersonal approach on information disclosure in an intelligence interview. We based the research on the theoretical proposition that consistency between an interviewee's primed dispositions and an interviewer's interpersonal approach would facilitate disclosure. Participants (N = 116) took on the role of an informant with information about an upcoming terror attack. Afterwards, an interviewer solicited information about the attack using an interpersonal approach that exhibited either high (helpfulness-focused) or low (control) fit with helpfulness concerns. Prior to the interview, in a seemingly unrelated experiment, we primed participants' helpfulness motivation and assessed their cognitive accessibility to helpfulness-related constructs. We observed that helpfulness priming increased information disclosure when the helpfulness-focused interpersonal approach was used but not when the control protocol was used. This research suggests that implementation of an interpersonal approach that complements an interviewe's primed dispositions may function symbiotically with the previous priming to facilitate information disclosure.

*Keywords*: disclosure, helpfulness, intelligence interviewing, interpersonal approach, priming

# Facilitating Disclosure in Intelligence Interviews: The Joint Influence of Helpfulness Priming and Interpersonal approach

In human intelligence interviews, interviewees typically have competing motivations to disclose and withhold information, which may lead them to manage their information disclosure (see Herbig, 2008). Such information management could be implemented by interviewees to partially satisfy perceived information objectives of the interviewer while covering up possible complicity in a subject of investigation and/or to protect culpable significant others. An emerging body of research (e.g., Dawson, Hartwig, & Brimbal, 2015; Dawson, Hartwig, Brimbal, & Denisenkov, 2017; Neequaye, Ask, Granhag, & Vrij, 2017b) has started to explore how priming disclosure motivations can be used as a subtle elicitation tactic to facilitate disclosure in intelligence contexts. As noted by Neequaye et al. (2017b), an interviewer could draw on a primed disclosure motivation to persuade an interviewee to share information. Thus, priming disclosure motivations afford the interviewer an opportunity to boost the likelihood that an interviewee would share, rather than withhold, information. In addition, compared to strategic interview techniques (e.g., Scharff technique: Oleszkiewicz, 2016), priming tactics can be executed without the interviewer having much information about a topic of interest. Hence, priming could be used as an initial tactic to reel in some information about a topic, before turning to strategic techniques that require such prior information to build strategic tactics. In this work, we explore whether activating interviewees' helpfulness motivations will promote their information disclosure in an intelligence interview.

#### **Helpfulness and Information Disclosure**

Previous research has found linkages between individuals' helpfulness tendencies and their likelihood to offer beneficial assistance to others in the form of volunteering (McClintock & Allison, 1989) and cooperation in social dilemmas (Van Lange, 1999; Capraro, Smyth, Mylona, & Niblo, 2014). Beyond the influence of dispositional helpfulness on cooperation, some studies have demonstrated that activating helpfulness through priming facilitates cooperativeness (Capraro et al., 2014, Study 3; Arieli, Grant, & Sagiv, 2014). The finding that helpfulness predicts cooperation is particularly applicable in intelligence interview contexts because activating an interviewee's helpfulness motivations generally aligns with an interviewer's information solicitation objectives. An interviewee can demonstrate their helpfulness motivations during an interview by cooperating and sharing reliable information. Moreover, (Neequaye et al., 2017b) have found that interviewees' helpfulness motivations correlate positively with information disclosure. Similar to this study, the authors examined the processes through which helpfulness priming influences information disclosure.

#### Situated Inference as a Theoretical Account of Prime-to-Behavior Effects

Loersch and Payne (2014) offer the situated inference model as a theoretical account to explain priming effects. According to the situated inference model, exposure to a prime stimulus generally increases accessibility to the primed content outside primed individuals' awareness. Such increased primed content accessibility is important for assimilative priming effects because previous research indicates that individuals typically rely on readily accessible concepts when making decisions (e.g., Mussweiler & Strack, 1999). In that regard, Loersch and Payne (2014) propose that when readily accessible primed content is misattributed as internally generated, due to lack of conscious awareness, the accessible primed content becomes a heuristic that guides the navigation of one's current situational affordances. Thus, increased accessibility to the primed content mediates the impact of priming on target behavior. However, high (vs. low) suitability affordances, which provide opportunities to enact the target behavior, facilitate such behavioral assimilation to the accessible primed content (Loersch & Payne, 2014). Research by Macrae and Johnston (1998) demonstrate such moderating effects of suitability affordances. In their experiments, Macrae and Johnston found that participants who had been primed to be helpful exhibited greater helpfulness in situations that encouraged (vs. discouraged) the enactment of helpfulness. The research indicated that participants picked up more *functioning* pens (i.e., high suitability affordance) in aid of an experimental confederate, who had dropped the pens, compared to participants who had not been primed. Nonetheless, when the pens were *leaking* (i.e., low suitability affordance), the assimilative helpfulness priming effect was eliminated. In a follow-up study, participants primed with helpfulness helped an experimental confederate by picking up more pens than those who did not receive the helpfulness priming. However, when participants were under the impression that they were *running late* (i.e., low suitability) for a second experiment, the effect of helpfulness priming was eliminated. The helpfulness priming effect was maintained when participants prime for the participants participants prime for the participants participants prime for the participants prime for the participants participants prime for the participants prime for the participants participants

In summary, principles of the situated inference model suggest that in examining whether helpfulness priming promotes information disclosure, (a) the priming method must activate the cognitive accessibility to helpfulness-related constructs (henceforth referred to as helpfulness accessibility), and (b) the primed interviewee must be presented with a high suitability affordance that encourages the demonstration of helpfulness through information disclosure.

#### **Interpersonal Approaches as Information Disclosure Affordances**

Birtchnell (1993, 1994) has proposed that when interacting with others, one could either adopt a constructive (adaptive) or unconstructive (maladaptive) interpersonal approach to achieve one's relating objectives. For example, when an individual feels neglected by their partner and is in need of intimacy, the neglected partner could communicate their needs adaptively with a considerate and specific message that voices their concerns without

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attacking the other partner. Alternatively, the need for intimacy could be communicated maladaptively through vague and inconsiderate passive-aggressive messages. According to Birtchnell (1994), an adaptive interpersonal approach aims at interrelating, rather than relating forcefully, by taking the other relator's current state of mind and/or needs into consideration. Thus, in the example above, the partner who communicates their need for intimacy with a considerate message inherently accommodates their partner's feelings and is more likely to achieve the desired relating objective—intimacy. Conversely, the vague and inconsiderate passive-aggressive message is likely to induce anger and withdrawal from the attacked partner. In that regard, as Birtchnell posits, adaptive interpersonal approaches are more likely to achieve one's relating goals. In contrast, maladaptive interpersonal approaches usually elicit resistance and consequently impair interrelating and one's relating objectives (e.g., Birtchnell & Evans, 2004; Birtchnell, Shuker, Newberry, & Duggan, 2009).

Intelligence interviewing can be defined as an information gathering endeavor that requires interaction between an interviewer(s) and an interviewee(s) (Granhag, Cancino Montecinos, & Oleszkiewicz, 2015). This definition suggests that interpersonal relating is linked inextricably to intelligence interviewing. Regarding such interpersonal relating in intelligence interviewing, it has been found that interviewers' adaptive interpersonal behaviors elicited adaptive interpersonal behaviors from interviewee's and increased information disclosure (Alison, Alison, Noone, Elntib, & Christiansen, 2013). In contrast, interviewers' maladaptive interpersonal behaviors evoked interviewees' maladaptive behaviors such as resistance and reduced information disclosure.

As discussed earlier, increased helpfulness accessibility, from priming, is likely to predispose primed interviewees to be helpful by disclosing information. However, we deduce from the situated inference model that high (vs. low) suitability affordances would enhance such behavioral assimilation. In that regard, we propose that an interview style, which

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embodies an interpersonal approach that draws on primed interviewees' helpfulness, is likely to be adaptive in enhancing information disclosure. Put simply, an interviewer who makes it readily apparent that they (i.e., the interviewer) needs help, and that such help can be provided by sharing reliable information, creates a high suitability affordance to promote information disclosure. Conversely, an interview style whose interpersonal approach displays low fit with helpfulness concerns is likely to be maladaptive when implemented in tandem with priming.

#### **The Present Research**

In the current study, we assessed participants' dispositional orientation toward helpfulness, as part of a pre-study survey, prior to the main study. When participants arrived for the main study, they were invited to prepare for an interview, assuming the role of a police informant who possesses information about an imminent terrorist plot. Before the interview, in a seemingly unrelated experiment, we primed the helpfulness motivations of half of the participants (controls received a helpfulness-unrelated prime) and assessed helpfulness accessibility. After the priming, each participant was interviewed about the terrorist plot using either a helpfulness-focused or control interpersonal approach. These served as proxies for high and low suitability affordances, respectively, and were specifically designed to be consistent with the priming manipulation. Hence, in addition to displaying high fit with helpfulness, the helpfulness-focused approach was designed to make it readily obvious to the interviewees that helpfulness could be exhibited by sharing reliable information. Furthermore, the interviewer set the agenda of the interview by asking directive questions while seeking help. The control interpersonal approach, which was implemented as a comparison condition, did not seek any help and consisted of directive and straightforward questions. Although the interview protocols differed in their interpersonal approaches, both retained similar internal structure and were scripted to ensure interviewer equivalence.

We hypothesized that participants in the helpfulness (vs. control) priming condition will disclose more information in the subsequent interview (Hypothesis 1). Moreover, we predicted an interaction between priming and interpersonal approach. Specifically, we hypothesized that the effect of helpfulness (vs. control) priming would be stronger when combined with the helpfulness-focused (vs. control) interpersonal approach (Hypothesis 2). Finally, based on the theoretical proposition that construct accessibility mediates the effect of priming on behavior, we predicted that helpfulness accessibility would mediate the effect of helpfulness priming on information disclosure. However, because of the previous hypothesis that the priming effect would be moderated by the interviewer's interpersonal approach, we predicted a conditional mediation effect. Specifically, the mediation effect of helpfulness accessibility would be stronger in the helpfulness-focused (vs. control) interpersonal condition (Hypothesis 3). Figure 1 illustrates the proposed conditional mediation.

#### Method

#### **Participants and Design**

The sample consisted of 126 participants, which included university students and community members, 93 females and 32 males (one participant did not state their gender), with an average age of 29.91 years (SD = 11.38). The participants were recruited through advertisements at university libraries and departments as well as public notice boards. We employed a 2 (priming: helpfulness vs. control) × 2 (interpersonal approach: helpfulness-focused vs. control) between-groups design. Random assignment resulted in a distribution of between 30 and 32 participants in each cell of the design. Each participant received a gift card worth 100SEK (~11.5USD) as compensation. Eight participants with high discrepancy (> 10 information units) between their subjective and actual information disclosure (see Phase 4 below) were excluded from the analyses. Such discrepancy possibly reflects confusion between intended and actual information disclosure. Moreover, they could have

misunderstood the post-interview instructions and provided untruthful information. Analyses including these excluded participants did not alter the pattern of findings reported below. The analyses including the eight participants have been reported in the supplemental material. Two participants who expressed awareness of the experimental hypothesis were also excluded from the analyses. The final sample thus consisted of 116 participants.

#### **Procedure and Materials**

We guised procedures in this study to appear as two independent studies in order not to give the working hypotheses away. In the first study, we told participants that we were examining the effectiveness of a range of interview techniques. In the second purportedly unrelated study that contained the priming manipulation, we told participants that the study explored individual differences in language use and communication. Before each experiment begun, all participants read and signed a standard consent form.

A Regional Ethical Review Board approved all procedures in this research.

**Phase 1: Helpfulness values.** Participants completed a shortened version of Schwartz's Value Survey (SVS) designed by Lindeman and Verkasalo (2005) prior to arrival for the main study. We translated the survey to Swedish and used back-translation procedures recommended by Brislin (1986) to ensure equivalence between the English and Swedish versions. The survey was then computerized and sent to participants via a web link. Participants were to indicate the importance of ten motivationally distinct values as personal life-guiding principles on a 9-point scale Likert scale (0 = opposed to my principles, 1 = Not*important*, 4 = important, 9 = of supreme importance). In addition to helpfulness (i.e., benevolence)—the target value—the survey assessed power, achievement, hedonism, stimulation, self-direction, universalism, tradition, conformity, and security values. Only helpfulness values, which was intended as a potential covariate when testing the influence of the independent variables on information disclosure, will be examined in this study. **Phase 2: Background and planning.** We used the background and planning materials designed by Oleszkiewicz et al. (2014). Participants were to assume the role of a police informant with some information about an imminent terrorist attack. We provided each participant with a booklet containing incomplete information about a terrorist plot by a leftwing extremist group. The information was presented in a coherent storyline containing 37 relevant details. A pilot test (N = 373) indicated that each of the 37 pieces of information were considered to be substantially relevant to a police investigation. Analyses of these data are presented in the supplemental analyses (see also, Table S1).

Using the instructions of Oleszkiewicz et al. (2014), we instructed participants to manage their information disclosure in order to induce semi-cooperativeness (i.e., divided loyalty) and prevent floor and ceiling effects. Participants were told (a) not to provide too little information (assisting the police was necessary to be granted free passage out of the country), and (b) not to provide too much information (because participants were to imagine having strong ties to the extremist group). This information management dilemma has been successful in inducing competing motivations to disclose and withhold information in previous research (Granhag, Kleinman, & Oleszkiewicz, 2016; Oleszkiewicz, Granhag, & Kleinman, 2017). To ensure adherence to the information management instruction, we offered participants the possibility of earning an extra gift card if they managed information effectively. However, in truth, all participants received a single gift card. Participants were allowed to provide untruthful information during the interview.

**Phase 3: Priming**. When participants indicated completion of Phase 2, they were invited to complete the second study. We told participants that the police contact was going to conduct the interview a little while later. Thus, completing the second study while they waited would save time. All participants agreed to this.

The priming phase was fully computerized. In accordance with the cover story that the priming experiment was to examine individual differences in language use and communication, participants were informed that they would be writing down some guided thoughts. In the *helpfulness* condition, participants were instructed to think about and visualize a time when they had been helpful. Liberman, Förster, and Friedman (2007) have argued that post-attainment decrements in motivation attenuate goal-priming effects. Hence, we instructed participants to focus on their internal state right before they had provided help to mitigate such post-attainment decrease. Participants in the control condition reflected on a relatively neutral topic: their morning routine. They were instructed to reflect on their regular morning routine and visualize their usual preparations to commence each day. In both conditions, participants presented their reflections in writing. We apportioned a maximum of five minutes for reflection and writing: mandatory two and half minutes, and optional two and half minutes if necessary. Examination of participants' written reflections indicated that they adhered to the instructions. Those in the helpfulness condition wrote about their internal states prior to various scenarios where they had offered help and participants in the control condition wrote about morning routines, which were relatively neutral to helpful behaviors.

Helpfulness accessibility was measured after priming using 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 limit was implemented to prevent extensive reflection during word completions. Following Koopman, Howe, Johnson, Tan, and Chang's (2013) recommendations, some of the word fragments had specific letters missing and others were incomplete word stems. In total, the word-fragment/stem completion material comprised of 40 word-fragments, 20 target words which could be completed to form helpfulness related words, and 20 of which were neutral with regard to helpfulness. However, both target and neutral word fragments could be completed

with a varied range of words. A single word was presented at a time and participants had to input their chosen word in a textbox below each word-fragment. We assigned a score of one point when a word-fragment was completed to a helpfulness related word and zero when completed with an unrelated word. Higher scores indicated greater helpfulness accessibility. See supplemental material for priming instructions and list of word fragments.

**Phase 4: The Interview.** Each participant was interviewed approximately three minutes after the priming and were allowed to access notes they had prepared in Phase 2 during the interview<sup>1</sup>. We implemented this feature to eliminate memory confounds. The interviewer initiated contact with the participant via an audio Skype call. All the interviews were recorded for the purposes of data analysis. Individual interviews ranged from 164 to 773 seconds. An independent-samples *t*-test indicated that the average helpfulness-focused interview (M = 362.26, SD = 104.86) lasted longer than the average control interview (M = 269.19, SD = 74.59), t(114) = 5.52, p = .001, d = 1.03, 95% CI [0.64, 1.41]. The introduction and phrasing of questions used in the helpfulness-focused interview possibly contributed to the observed difference in length.

*Helpfulness-focused approach.* For participants interviewed using the helpfulnessfocused protocol, the interviewer opened with an expression of sympathy, emphasized the informant's autonomy in determining what information to share, and stated the purpose of the call. Some studies have found that expressions of sympathy (e.g., Batson et al., 1997) and emphasis of actors' autonomy (Gagné, 2003; Weinstein & Ryan, 2010) promote enactment of helpful behaviors. After the introduction, the interviewer asked three open-ended directive and thematic questions. The wording of each question displayed high-fit with helpfulness. The first question solicited details about the members of the terrorist group planning the attack. The second question, which included four sub-questions, sought information about specific plans of the attack. Next, the interviewer requested additional information. The interviewer ended the interview after the informant responded to the third question. The appendix contains the full interview protocol.

*Control approach.* This protocol took a business-like approach and consisted of straightforward questions. The interviewer did not draw on the interviewee's helpfulness to elicit information. After an initial introduction and statement of the purpose of the call, the interviewer asked three open-ended directive and thematic questions. The interviewer first asked for information about members of the terrorist group. Next, the interviewer asked for information about specific plans of the attack. The second question included four sub-questions. Finally, the interviewer asked for additional details and ended the interview when the informant finished speaking. The appendix contains the full interview protocol.

*Interviewer.* We trained a female interviewer (using practice trials) to conduct all the interviews. To ensure internal validity, she was instructed to follow the interview protocols strictly and not to improvise. She adhered to the script throughout all the interviews and did not improvise. The interviewer was blind to the priming condition of the participant.

Phase 5: Post-Interview Questionnaires. Participants completed a post-interview questionnaire after the interview. We told participants 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, which contained all the 37 units of information present in the background and planning information. We instructed participants to identify and mark the specific information they disclosed to the interviewer in the first checklist. This measure was planned as a reliability check for consistency with the actual information that was disclosed. Recall that participants were allowed to consult their notes and the background material to eliminate memory confounds. In the second checklist, participants were to mark the information they believed the interviewer was likely to possess prior to the interview. Previous research on the Scharff technique suggests that an interviewee's perception about the

extent of an interviewer's knowledge is an important element in an interview approach that may influence disclosure (e.g., Oleszkiewicz, 2016). Thus, we included the second checklist to examine whether the interview protocols influenced participants' perceptions of interviewer's prior information.

After the checklists, participants rated a series of statements on separate 11-point continuous scales. They commenced by providing a retrospective rating of how much information they perceived to have disclosed to the interviewer (0 = no information, 10 = allof the information). The analyses of these data are presented in the supplemental analyses. Next, participants indicated the extent to which they were motivated to help the interviewer by disclosing information during the interview (0 = not motivated at all, 10 = very motivated), the extent to which the interviewer's interpersonal approach matched their expectations (0 =did not match my expectations at all, 10 = matched my expectations completely, and the extent to which the interviewer's interpersonal approach mismatched their expectations (0 =*did not mismatch my expectations at all,* 10 = *mismatched my expectations completely*). We implemented the latter two variables to explore whether the priming and the interview approaches interacted to confirm participants' expectations of the interviewer's interpersonal approach. The measures displayed a strong negative correlation, r = -.72, p < .001, 95% CI [-0.62, -0.80]. Thus, we reverse coded the mismatch expectations variable and aggregated the measures to an average to create an expectancy confirmation score. Internal consistency was good ( $\alpha = .84$ ).

When the battery of ratings was completed, we assessed participants' subjective interview experiences regarding the extent to which they felt (a) autonomy in choosing what information to disclose, (b) trust in the interviewer, and (c) at ease during the interview. The ratings were provided on a 7-point scale (1 = do not agree at all, 7 = agree completely). Next, participants gave retrospective ratings about their perceptions of the interviewer on separate

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7-point Likert scales. These included perceptions about the interviewer's sympathy (-3 = not sympathetic at all, 3 = very sympathetic), friendliness (-3 = not friendly at all, 3 = very friendly), and interpersonal warmth (-3 = not warm at all, 3 = very warm). We combined the interviewer perception measures to create an interviewer likeability index. Internal consistency was good ( $\alpha$  = .88).

*Coding procedure for interviews.* Each interview was transcribed verbatim. All transcripts were coded for the quantity of information disclosed (range: 0–37). Repeated information was marked as one unit of information only. Incorrect and/or fabricated information was counted but not included in the quantity measure because its occurence was extremely low. Thirty percent of the transcribed interviews were randomly selected and coded separately by two coders. Reliability analysis indicated that inter-rater reliability was very good,  $\kappa = 0.89$ , SE = 0.02, 95% CI [.85, .92]. The assistants discussed and settled minor disagreements after reliability analysis. One of the coders coded the remaining 70% of transcripts.

#### Results

#### Main Analyses

We examined the focal hypotheses using the bootstrapping method, which makes no assumptions about the shape of a sample distribution and thus is robust against any irregularities in a sampling distribution (Wood, 2005). Furthermore, Hayes (2013) notes that the bootstrapping method produces more accurate estimates than the normal theory approach when the characteristics of a statistic over repeated sampling have not been investigated extensively. To our knowledge, this is one of the first attempts in the literature to investigate (a) the interaction between priming and prime-focused interviewing on information disclosure and (b) the mediating role of construct accessibility in such priming effects. Hence, such uncertainty exists in this research area that the implementation of the bootstrapping method is warranted. Means for all dependent measures are reported in Table 1.

**Moderation analyses.** We examined the main effect of priming and the Priming × Interview Approach interaction on the amount of information disclosed in a moderation analysis with 5,000 bootstrapped samples. As recommended by Hayes (2013, p. 277), the condition variables were effect coded before the analysis (-0.5 = control priming, 0.5 = helpfulness priming; -0.5 = control approach, 0.5 = helpfulness-focused approach). Correlation analysis indicated that the relationship between benevolence values and information disclosure was not significant, r = -.01, p = .958, 95% CI [-0.19, 0.18]. Moreover, covariate analysis including the benevolence values variable did not influence the nature of the results. Thus, we did not include the benevolence values measure in the results below.

The main effects of priming (b = 1.03, SE = 0.74, p = .165, 95% BCa CI [-0.42, 2.51]) and interview approach (b = 0.19, SE = 0.74, p = .795, 95% BCa CI [-1.24, 1.69]) were not significant. The former indicates that Hypothesis 1 was not supported; helpfulness priming did not have significant direct impact on the amount of information disclosed (see Table 1). The interaction between priming and interview approach was not significant by conventional standards, b = 2.57, SE = 1.49, p = .083, 95% BCa CI [-0.31, 5.49]. To examine the predicted pattern in detail, however, we conducted a conditional effects analyses. The analyses revealed that the helpfulness (vs. control) priming had a significant positive effect when the helpfulness-focused approach was used, b = 2.31, SE = 1.11, p = .036, 95% BCa CI [0.14, 4.44]. The effect of helpfulness (vs. control) priming was not significant when the control approach was used, b = -0.26, SE = 0.99, p = .792, 95% BCa CI [-2.16, 1.69]. Hence, Hypothesis 2 received partial support. Figure 2 illustrates the interaction and descriptive statistics are reported in Table 1. **Mediation analysis.** To examine Hypothesis 3, we conducted a conditional mediation analysis with 5,000 bootstrapped samples using Hayes's (2015) PROCESS macro (model 15) for SPSS. We dummy coded the priming [and interview approach] variable (0 = control priming [control approach], 1 = helpfulness priming [helpfulness-focused approach]). 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, b = 0.36, SE = 0.34, p = .298, 95% BCa CI [-0.33, 1.06]. As can be inferred from Table 1, this indicates that on average participants in the helpfulness (vs. control) priming condition did not complete the word completion task with significantly more helpfulness-related words. The Priming × Interview Approach interaction (*c*) was again not significant by conventional standards, b = 2.61, SE = 1.54, p = .093, 95% BCa CI [-0.45, 5.67]. Moreover, the interaction between helpfulness accessibility and interview style (*b*) was not significant, b = 0.04, SE = 0.422, p = .921, 95% BCa CI [-0.79, 0.88].

Failing to support Hypothesis 3, the indirect effect of priming, through helpfulness accessibility was neither significant among participants who were interviewed using the helpfulness-focused (b = -0.01, 95% BCa CI [-0.41, 0.28]) nor control approach (b = -0.03, 95% BCa CI [-0.45, 0.10]).

#### **Exploratory Analyses**

We explored the effects of priming, interview approach, and their interaction, as well as the Helpfulness Accessibility × Interview Approach interaction, on helpfulness motivation and expectancy confirmation self-reports. These analyses might provide information to guide future research in the examination of contextual factors that influence priming tactics in intelligence contexts. In each Priming × Interview Approach interaction analysis, we used the same moderation analysis strategy reported in the main analyses. The helpfulness accessibility

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variable was maintained in its original metric and the interview approach variable was dummy coded (0 = control approach, 1 = helpfulness-focused approach) in the Helpfulness Accessibility × Interview Approach interaction analyses.

Helpfulness motivations. The correlation between helpfulness motivation and information disclosure was positive and significant, r = .29, p = .002, 95% CI [0.11, 0.45]. The main effect of priming on helpfulness motivations was not significant, b = 0.39, SE =0.35, p = .271, 95% BCa CI [-0.30, 1.07]. Nevertheless, the main effect of interview approach was significant, b = 0.86, SE = 0.35, p = .014, 95% BCa CI [0.18, 1.55]. This indicates that participants interviewed using the helpfulness-focused (vs. control) approach reported higher helpfulness motivations. The Priming × Interview Approach interaction was, however, not significant (b = 0.70, SE = 0.70, p = .318, 95% BCa CI [-0.67, 2.07]). The interaction between helpfulness accessibility and interview approach was significant, b = 0.41, SE = 0.19, p =.028, 95% BCa CI [0.06, 0.78]. Conditional effects analyses revealed that at high levels of helpfulness accessibility (+1SD), the effect of the helpfulness-focused (vs. control) approach was positive and significant, b = 1.61, SE = 0.50, p = .002, 95% BCa CI [0.62, 2.61]. The effect of the helpfulness-focused (vs. control) approach at low levels of helpfulness accessibility (-1SD) was not significant, b = 0.07, SE = 0.50, p = .877, 95% BCa CI [-0.91, 1.06]. This shows that for participants who experienced high levels of helpfulness accessibility, the helpfulness-focused (vs. control) approach boosted helpfulness motivation self-reports.

*Expectancy confirmation.* Perceived expectancy confirmation was positively and significantly correlated to information disclosure, r = .18, p = .025, 95% CI [0.03, 1.00]. The main effects of priming (b = -0.30, SE = 0.41, p = .459, 95% BCa CI [-1.10, 0.55]) and interview approach (b = 0.03, SE = 0.41, p = .936, 95% BCa CI [-0.77, 0.82]) as well as their interaction (b = 1.31, SE = 0.84, p = .117, 95% BCa CI [-0.26, 2.89]) were not significant.

The Helpfulness Accessibility × Interview Approach interaction was not significant, b = 0.03, SE = 0.24, p = .907, 95% BCa CI [-0.46, 0.48].

#### **Informants' Interview Perceptions**

Exploratory moderation analyses did not reveal any systematic Priming × Interview Approach interactions on informants' interview perceptions. Hence, to examine the efficacy of helpfulness-focused (vs. control) approach manipulations, we tested the influence of the interview approaches on participants' subjective interview experiences and interviewer likeability using independent-samples *t*-tests. A small effect of the helpfulness-focused (vs. control) approach was observed with regard to perceived autonomy but a statistically significant difference did not emerge, t(114) = 1.16, p = .249, d = 0.22, 95% CI [-0.15, 0.58]. However, participants interviewed using the helpfulness-focused (vs. control) approach reported feeling more trust in the interviewer, t(114) = 3.88, p < .001, d = 0.72, 95% CI [0.03, 0.77]. Regarding interviewer likeability, participants interviewed using the helpfulnessfocused (vs. control) interview approach rated the interviewer as more likeable, t(114) = 4.87, p < .001, d = 0.91, 95% CI [0.52, 1.29]. Descriptive statistics are reported in Table 2.

#### Discussion

We examined the possibility of eliciting information in an intelligence interview by priming helpfulness motivations and using a helpfulness-focused interpersonal approach. Overall, neither the helpfulness priming nor the helpfulness-focused interpersonal approach had a significant direct influence on information disclosure. However, we observed that helpfulness (vs. control) priming increased information disclosure when the helpfulness-focused interpersonal approach was used, but not when the control approach was used. Finally, we did not observe the proposed conditional mediation effect (as a function on the helpfulness-focused [vs. control] approach) of helpfulness priming on information disclosure, through helpfulness accessibility.

Based on the propositions of the situated inference model (Loersch & Payne, 2014) and the interpersonal octagon (Birtchnell, 1994), we proposed that helpfulness priming would facilitate information disclosure in an intelligence interview when an interviewer implements a high suitability affordance in the form of a helpfulness-focused interpersonal approach. We deduced that consistency between an interviewee's primed dispositions and an interviewer's interpersonal approach would facilitate disclosure. Overall, the present results lend partial support to the theoretical proposition. Though the observed effects are small, our findings indicate that the helpfulness-focused approach, which sought to draw on primed interviewees' helpfulness, functioned as an adaptive interpersonal approach by facilitating disclosure when helpfulness had been primed. Moreover, in line with Birtchnell's (1994) relating theory, increased information disclosure was modestly associated with interviewees' increased perception about the suitability of the interviewer's interpersonal approach. It is worth to note that such small effects are similar to what has been found extant research that have examined priming influences in intelligence interviews (e.g., Dawson et al., 2015; Dawson, et al., 2017). In intelligence interview contexts, information gain is inherently beneficial; hence, such small effects could produce important real-world impact (see Lakens, 2013, p. 3 on interpreting effect sizes).

#### Limitations

Our prediction that helpfulness priming would indirectly influence information disclosure more strongly in the helpfulness-focused approach condition, through helpfulness accessibility, was not supported. We suspect that this null result may have stemmed from the inability of the word fragment task to discriminate differential levels of helpfulness accessibility between the helpfulness and control priming conditions successfully. Thus, unfortunately, the data from the present work is unable to decipher the interplay between helpfulness priming, helpfulness accessibility, and helpfulness-focused interviewing fully. It is worth noting, however, that the priming manipulation and the word fragment task we used in this study has successfully discriminated the levels of helpfulness accessibility between helpfulness and control priming conditions in previous experiments. A meta-analysis of the four experiments reported by Neequaye, Ask, Granhag, & Vrij, (2017a) and Neequaye et al. (2017b) revealed a fairly medium-sized effect of the priming manipulation on helpfulness accessibility (d = 0.38, 95% CI [0.20, 0.56], see Table S2 in the supplemental analyses for further details). Hence, though this study was adequately powered, random sampling variability may have contributed to the null effect of the priming manipulation on helpfulness accessibility (see Lakens & Etz, 2017).

It is also possible that during the word completions some participants in the control priming group were primed inadvertently because they self-generated helpfulness-related words. This limitation may have especially weakened our efforts to uncover the possible main effect of helpfulness (vs. control) priming on information disclosure. That notwithstanding, we deduced from previous research that multiple sources of construct accessibility combine additively (Bargh, Bond, Lombardi, & Tota, 1986; Higgins & Brendl, 1995). Hence, a larger effect of priming was expected among helpfulness-primed participants because they self-generated helpfulness-related words in addition to completing the helpfulness priming task. Future research would benefit from measures of construct accessibility that demonstrate priming effects without priming control groups accidentally.

#### Implications

It is important to caution that the research on priming influences in the intelligence context is still in its infancy and that the extant conclusions are preliminary. Further highpowered replications of the current body of work are needed to fully uncover the potential usefulness of priming tactics. This work, however, provides information for intelligence interviewers considering the practical utility of subtle influence tactics such as priming. Regarding information elicitation, our research indicates that in addition to priming a motivation of interest, an interpersonal approach that displays high fit with the primed motivation may be required to facilitate disclosure. The results suggest that a priming tactic and a complementary interpersonal approach could work symbiotically to facilitate disclosure. For example, though participants interviewed using the more congenial interpersonal approach (i.e., helpfulness-focused interview) reported higher helpfulness motivations and more positive perceptions (e.g., trust) of the interviewer; the helpfulness-focused interpersonal approach facilitated information disclosure only when helpfulness had been primed.

#### Conclusions

In this work, we explore a novel and innovative approach to information elicitation in intelligence interviewing. The research provides useful information about the importance of implementing a complementary interpersonal approach to solicit information when a disclosure-related motivation has been primed. In all, our findings indicate that helpfulness priming may facilitate information disclosure when combined with a helpfulness-focused interpersonal approach. This study sets the stage for future intelligence interviewing research to explore how priming varied disclosure-related motivations and their complementary interpersonal approaches may work in concert to influence information disclosure.

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## Endnotes

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<sup>1</sup> All the interviews were conducted in Swedish, and the descriptions of the interview protocols are approximate English translations. It should be noted that, in Swedish parlance, all the questions were structurally open-ended. Furthermore, participants' responses in the individual interviews reflected forethought. No participant responded to any of the questions with a simple "yes" or "no".

#### Appendix

#### **Interpersonal Approaches**

#### **Helpfulness-focused Approach**

**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, but specific questions. When you feel you cannot give anything more, we will end the conversation. I hope you can *help* me by telling me more about the upcoming attack. Please tell me about the members of the group who are planning the attack.

Second question. Thank you, that was *helpful*. I feel that this cooperation can really *help* me to understand more about the attack. It would be really *valuable* to me if you could tell me about the area where the group has chosen to perform the attack.

#### Follow up questions:

Could you *help* me with information about where the bomb will be placed?

Information about the date on which the attack will take place will also be *valuable* for my investigation. Do you have any information about the date of the attack?

Could you *help* me with information regarding when and how the bomb will be delivered?

Do you have any information about when and how the bomb will be triggered? This will also *help* my investigation.

**Third question.** As I mentioned initially, 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* me with? Perhaps something I haven't asked that will be *good* for me to know?

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

## **Control Approach**

**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 open, but specific questions that I want you to answer. You can begin by telling me details about the upcoming attack: Please tell me about the members of the group who are planning the attack.

**Second question.** Thank you. Could tell me about the area where the group has chosen to perform the attack?

#### Follow up questions:

Could you give me information about where the bomb will be placed?

Do you have any information about the date of the attack?

Could you give me information regarding when and how the bomb will be delivered?

Do you have any information about when and how the bomb will be triggered?

Third question. So, before we finish this interview, is there any additional information you can give? Perhaps some information I have not asked about?

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

# Table 1Group Means of Dependent Measures

	Control	Approach	Helpfulness-focused Approach		
Measure	Control Priming	Helpfulness priming	Control Priming	Helpfulness priming	
1. Helpfulness accessibility <sup>a</sup>	5.69 (1.95)	5.50 (2.13)	4.85 (1.83)	5.80 (1.50)	
2. Information disclosed <sup>b</sup>	8.14 (4.26)	7.90 (3.28)	7.00 (3.63)	9.33 (4.74)	
<ol> <li>Perceived specific information disclosed for clarity<sup>b</sup></li> </ol>	9.48 (4.22)	9.17 (3.00)	9.00 (3.68)	10.33 (4.73)	
4. Perceived information disclosed <sup>c</sup>	4.28 (1.96)	3.90 (1.32)	4.26 (1.66)	4.87 (1.48)	
5. Helpfulness motivation <sup>c</sup>	4.76 (1.94)	4.80 (2.04)	5.26 (1.79)	6.00 (1.88)	
6. Expectancy confirmation <sup>c</sup>	6.02 (2.74)	5.01 (2.27)	5.37 (1.82)	5.73 (2.24)	
7. Helpfulness values <sup>d</sup>	7.52 (1.38)	8.03 (1.40)	7.59 (1.47)	7.80 (1.63)	

*Note*. Values in parentheses represent standard deviations.

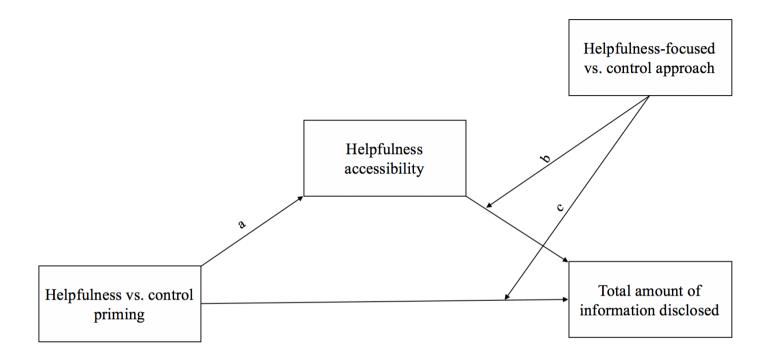
<sup>a</sup>Possible range: 0 to 20. <sup>b</sup>Possible range: 0 to 37. <sup>c</sup>Possible range: 0 to 10. <sup>d</sup>Possible range: 1 to 9.

# Table 2

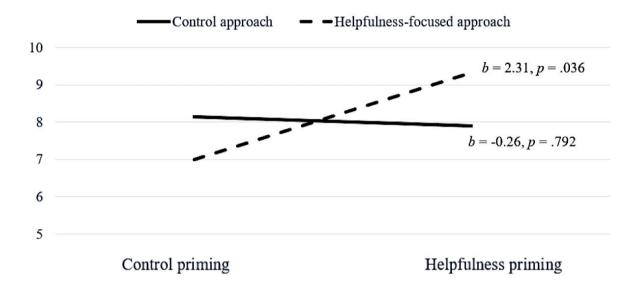
# Group Means of Interviewer Perceptions

Measure	Control Approach	Helpfulness-focused Approach
1. Autonomy	5.29 (1.80)	5.65 (1.54)
2. Trust	3.31 (1.65)	4.54 (1.78)
3. At ease	3.66 (1.86)	4.36 (1.14)
4. Interviewer likeability	4.22 (0.96)	5.15 (1.10)

*Note*. Values in parentheses represent standard deviations. Possible range for all measures is 1 to 7.



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



*Figure 2.* Information disclosed as a function of helpfulness priming and interpersonal approach.

#### **Supplemental 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 <u>**RIGHT**</u> **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.

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#### Supplemental Analyses

#### Consistency

We conducted correlation analyses to examine 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. Overall, the 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 = .80, p < .001, 95% CI [.72, .87]. The relation between perceived amount of information disclosed and the actual amount of information disclosed was also significant, r =.51, p < .001, 95% CI [.33, .65]. Finally, we examined whether the priming and the interview approaches interacted to influence participants' perceptions of the amount of prior information possessed by the interviewer. We conducted a Priming × Interview Style moderation analysis for this examination; No significant effects emerged, all ps > .291.

#### **Information value**

We recruited 373 participants, 262 females and 104 males (five participants and two participants identified as non-binary and as transgender respectively) in a pilot study to ascertain the information value of the thirty-seven pieces information contained in the background and planning information. The average age of the sample was 30.88 years (SD = 10.60 years; three participants did not state their age). The study was fully computerized and sent to prospective participants via an anonymous web link. After participants were introduced to the purpose of the study and they had indicated consent to participate, we presented the same instructions and planning materials, used in Phase 2 of the main study, to them. Participants were instructed to study the information in order to assume the role of a police informant with information about an upcoming terrorist attack. However, instead of

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being interviewed subsequently, we asked participants to provide a rating indicating the extent to which each of the thirty-seven pieces of information would be *helpful* to their police contact's investigation. Participants were instructed to be mindful of their information management dilemma as an informant while providing their ratings. We included this instruction, as in the main study, to prevent floor and ceiling effects. Ratings were provided on an 11-point continuous scale (0 = not helpful at all, 10 = extremely helpful).

One-sample *t* tests (comparison test value = 5) indicated that, overall and on average, each of the thirty-seven pieces of information was considered to be of high information-value, all ps < .01. In addition, we examined the consistency between information-value observed in this pilot study and quantitative information disclosure in the main study. Thus, using the mean information-value ratings of the respective pieces of information in this pilot study, we computed total information-value scores for participants' information disclosure in the main study. The correlation analyses indicated excellent consistency between total quantitative information disclosed and total information-value of information disclosed (r = .99, p < .001, 95% CI [.99, 1.00]). Descriptive and inferential statistics are presented in the supplemental table.

# Results including the eight participants previously excluded due to high discrepancy between subjective and actual information disclosure

#### Information disclosed

#### **Moderation analysis**

Main effect of priming: b = 1.06, SE = 0.72, p = .142, 95% BCa CI [-0.36, 2.45] Main effect of interview approach: b = .10, SE = 0.72, p = .895, 95% BCa CI [-1.33, 1.52] Priming × Interview approach interaction: b = 2.26, SE = 1.44, p = .118, 95% BCa CI [-0.59, 5.11]

#### **Conditional effects Helpfulness-focused approach** Jelpfulness (vs. control) priming: h = 2.19, SE = 1

Helpfulness (vs. control) priming: b = 2.19, SE = 1.02, p = .033, 95% BCa CI [0.18, 4.20]

#### **Control approach**

Helpfulness (vs. control) priming: *b* = -0.07, *SE* = 1.02, *p* = .946, 95% BCa CI [-2.08, 1.94]

#### **Conditional mediation effects**

Helpfulness-focused approach: b = -0.03, 95% BCa CI [-0.46, 0.91] Control approach: b = -0.02, 95% BCa CI [-0.43, 0.23]

#### **Helpfulness motivation**

#### **Moderation analyses**

Main effect of priming: b = 0.17, SE = 0.36, p = .64, 95% BCa CI [-0.54, 0.88] Main effect of interview approach: b = 0.74, SE = 0.36, p = .042, 95% BCa CI [0.03, 1.44] Priming × Interview approach interaction: b = 0.49, SE = 0.72, p = .495, 95% BCa CI [-0.93, 1.91]

Helpfulness accessibility × Interview approach interaction: b = 0.47, SE = 0.19, p = .013, 95% BCa CI [0.10, 0.85]

#### **Expectancy confirmation**

#### **Moderation analyses**

Main effect of priming: b = -0.47, SE = 0.82, p = .572, 95% BCa CI [-2.09, 1.16] Main effect of interview approach: b = -0.07, SE = 0.82, p = .936, 95% BCa CI [-1.69, 1.56] Priming × Interview approach interaction: b = 3.18, SE = 1.64, p = .055, 95% BCa CI [-0.07, 6.43] Helpfulness accessibility × Interview approach interaction: b = 0.07, SE = 0.46, p = .878, 95% BCa CI [-0.83, 0.97]

#### Interview perception (Helpfulness-focused [vs. control] approach)

Autonomy: *t*(122) = 1.14, *p* = .258, 95% CI [-0.25, 0.93] Trust: *t*(122) = 3.38, *p* = .001, 95% CI [0.45, 1.71] At ease: *t*(122) = 1.82, *p* = .071, 95% CI [-0.50, 1.21] Likeability: *t*(122) = 4.82, *p* < .001, 95% CI [0.53, 1.26]

Table S1

		M ( <i>SD</i> )	t	d	95% CI	
		. ,	l	и	Lower	Upper
The group	5 people are planning the attack	7.76 (2.61)	20.41	1.057	7.49	8.02
	2 persons are Danish	7.33 (2.56)	17.55	0.909	7.07	7.59
	1 of the members is man	5.40 (2.99)	2.61	0.135	5.10	5.71
	1 of the members is woman	5.91 (2.88)	33.69	0.317	5.62	6.21
	There are bomb experts	8.75 (2.15)	21.97	1.744	8.53	8.97
	There is a Danish bomb expert	8.26 (2.86)	21.97	1.138	7.97	8.55
	Called MDA16	8.12 (2.78)	21.67	1.122	7.84	8.40
	10 members	7.17 (2.71)	15.46	0.800	6.89	7.44
	People from Gothenburg	8.62 (2.28)	30.71	1.590	8.39	8.86
	Founded after the 2001 EU riots	7.11 (2.45)	16.62	0.861	6.86	7.36
Previous planning	Have planned a bomb attack previously	7.18 (2.45)	17.19	0.890	6.93	7.43
	Planned a bomb attack in Malmö	6.86 (2.39)	15.03	0.778	6.62	7.10
	Was cancelled due to an internal conflict	6.29 (2.51)	9.89	0.546	6.20	6.74
	Some people left the group after the conflict	6.47 (2.69)	10.54	0.512	6.03	6.54
	Jari Tapio left the group after the conflict	6.81 (2.93)	11.91	0.617	6.51	7.11
Location	A shopping center	6.81 (2.83)	12.43	0.644	6.53	7.11
	City center	7.43 (2.48)	18.95	0.981	7.18	7.68
	Nordstan	9.28 (2.37)	34.81	1.802	9.04	9.52
	Femmanhuset	9.40 (2.66)	31.95	1.654	9.13	9.68
Placement of the bomb	Central location	6.86 (2.67)	13.49	0.699	6.59	7.13
	In the basement	7.17 (2.79)	15.04	0.779	6.89	7.46
	In an electronics store	7.80 (2.70)	20.05	1.038	7.53	8.08
	The store Elektronik Experten	8.82 (3.31)	22.24	1.151	8.48	9.15
Date	Around Christmas	7.66 (2.40)	21.37	1.107	7.41	7.90
	After Christmas	8.35 (2.17)	29.84	1.545	8.13	8.57
	27th of December	9.07 (3.20)	24.55	1.271	8.74	9.39
When the bomb will be planted	During the day	6.54 (2.89)	10.26	0.531	6.24	6.83
1	Around closing time	8.13 (2.68)	22.61	1.170	7.86	8.40
	5:55PM	8.62 (3.51)	19.94	1.033	8.26	8.98
How the bomb will be planted	Placed in some kind of apparatus	6.79 (2.71)	12.80	0.663	6.52	7.07
I	Placed in a TV	7.83 (2.90)	18.61	0.977	7.54	8.13
	Apparatus/TV brought for repairs	8.41 (3.51)	18.80	0.973	8.06	8.77
When bomb will be detonated	During the evening	7.97 (2.49)	23.03	0.758	6.69	7.21
	After closing time	6.95 (2.57)	14.65	1.193	7.71	8.22
	Around 11PM	8.48 (3.26)	20.62	1.067	8.15	8.81
How the bomb will be detonated	From a distance	7.59 (2.76)	18.16	0.940	7.31	7.87
	With an advanced remote detonator	7.91 (3.03)	18.53	0.960	7.60	8.21

Group Means and Inferential Statistics of the Information Value of the Thirty-seven Pieces of Information

Table S2Details of the Effect of the Current Priming Manipulation on Helpfulness Accessibility in Previous Experiments

	Control Priming		Helpfulness Priming			95% CI	
Experiment	M (SD)	N	M (SD)	N	d	Lower	Upper
Neequaye et al. (2017a, Study 2a) <sup>a</sup>	6.21 (2.58)	98	7.22 (2.49)	94	0.40	0.11	0.68
Neequaye et al. (2017a, Study 2b) <sup>a</sup>	4.37 (1.64)	42	5.36 (2.34)	44	0.49	0.06	0.92
Neequaye et al. (2017a, Study 3) <sup>a</sup>	6.09 (2.46)	46	6.85 (2.31)	45	0.32	-0.09	0.73
Neequaye et al. (2017b)	4.72 (2.17)	57	5.38 (1.79)	58	0.33	-0.04	0.70
Meta-analytic effect					0.38	0.20	0.56

<sup>a</sup>The study examined the underlying mechanisms of helpfulness priming.