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Evidence of Spontaneous Suspicion of Ulterior Motivation

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Abstract

Many forms of self-presentational behavior are very common, so social perceivers are experienced at observing them. In contrast with existing views, we argue that inferences about ulterior, self-presentational motives may be formed as spontaneously as other trait inferences. Applying a relearning paradigm, we assessed implicit, spontaneous inferences about ulterior motives. Participants read behavior descriptions, some of which could imply ulterior motivation (e.g., "John volunteered to help paint his boss' house", which can imply "ingratiating", or the correspondent trait "helpful") and descriptions that could not ("John volunteered to help paint his friend's house"). We assessed spontaneous inferences about ulterior motives (e.g., ingratiating) and about traits that directly corresponded with the behavior (e.g., helpful). Results showed that participants spontaneously activated the ulterior motive just as much as the correspondent inference. This indicates co-occurring spontaneous inferences of ulterior motives as well as correspondent traits.

Keywords: Social judgment, self-presentation, trait inference, spontaneous trait inferences, ulterior motivation, relearning paradigm.

Impressions of Impression Management:
Evidence of Spontaneous Suspicion of Ulterior Motivation

Self-presentational behavior occurs every day and everywhere (e.g., Leary 1995), and ingratiation and self-promotion are the most common varieties of it (Jones & Pittman, 1982; Vonk, 2001). Therefore, social perceivers may be proficient at detecting ingratiation and self-promotion, especially prototypical forms such as ingratiation towards the boss or a beautiful woman (Vonk, 1999a, 1999b). As a result of everyday practice, perceivers may even recognize this behavior and its motives spontaneously, without much cognitive effort.

The general view in social cognition, however, is that without any effortful thought, behavior is typically taken at face value due to the correspondence bias (see, Gilbert & Malone, 1995). Thus, when a subordinate compliments his boss, our first, spontaneous inference should be that he expresses genuine admiration. Whenever such self-presentational behaviors are observed, theoretically there are three possibilities:

(1) The self-presentational motives go unnoticed and the behavior is taken at face value; this follows from the correspondence bias;

(2) The behavior arouses suspicion of ulterior motivation and is carefully scrutinized. According to Fein (1996), suspicion of ulterior motivation evokes sophisticated attributional analysis, that is, conscious and deliberative thought. Thus, self-presentational motives can be detected but this requires cognitive elaboration;

(3) The behavior is spontaneously, without much conscious effort attributed to self-presentational motives. Here, we argue that this occurs more than is predicted by current theories on correspondence bias and suspicion of ulterior motivation.

Social-cognitive literature indicates that even complex higher mental processes become automatized when frequently exercised (Smith, 1994; see also Smith & Lerner, 1986). Examples are spontaneous trait inferences (STI's; Uleman, Newman & Moskowitz, 1996; see also, Uleman, Adil Saribay, & Gonzalez, 2008), inferences about goals of actors (Hassin, Aarts, & Ferguson, 2005), about properties of an actor's situation (spontaneous situation inferences, SSI's; Ham & Vonk, 2003; Lupfer, Clark, & Hutcherson, 1990), and about goal-directed behavior (Aarts & Dijksterhuis, 2000). We propose that, even though inferences about ulterior motives interfere with the human tendency toward inferring correspondent traits (e.g., friendly behavior is guided by a friendly disposition), the process of detecting self-presentational motives shares important similarities with other frequently exercised higher mental processes. If perceivers regularly observe particular styles of self-presentation (e.g., flattery), and if they engage in systematic corrective processes each time they do, these corrections may become proceduralized (Bassili, 1993; Smith, 1989) and occur spontaneously (Vonk, 1998, Exp. 5), just as other well-practiced cognitive activities.

Corroborating this assumption, previous studies (Vonk, 1998, 1999a) suggest that some forms of self-presentation are identified with little cognitive effort. However, in these previous studies, explicit measures were used (see also Fein, 1996; Fein, Hilton & Miller, 1990; Vonk, 1999a): Participants judged an actor on explicit (e.g., Likert-type) rating scales. And because explicit questions induce thoughtful, intentional responses (Uleman, 1999), these previous studies do not demonstrate that such inferences are made spontaneously.

Spontaneous non-correspondent inferences

The first purpose of the present study is to provide empirical evidence of the

spontaneity of inferences about ulterior motivation. Social-cognitive research studied spontaneous inferences in great detail, but methods and findings have never been applied to inferences of ulterior motivation and self-presentational behavior. Various methods have been developed to measure STI's and to guarantee that dependent measures reflect spontaneous inferences (for an overview, see, Uleman, Newman, et al., 1996). In the current study, we will adapt such a research paradigm to investigate spontaneous inferences related to suspicion of self-presentational motives.

In the literature on person perception, a fundamental difference is drawn between correspondent and non-correspondent inferences (Jones & Davis, 1965; Jones & McGillis, 1976). Although both types of inference reflect internal causes of behavior, the term correspondence refers to the extent to which the behavior and the underlying disposition are "similarly described by the inference" (Jones & Davis, 1965, p. 223). So, a correspondent trait inference takes the behavior at face value, whereas a non-correspondent trait inference refers to potential motives other than conveying a true reflection of the self, that is, self-presentational motives in many cases. For instance, in case of helpful behavior, the inference of the motive to help would reflect correspondence; the inference of the motive to ingratiate would reflect non-correspondent inferences (still informative about the target). When forming an impression of others, people can face an attributional dilemma (see Fein, Hilton, & Miller, 1990): An actor's behavior corresponds with an internal correspondent trait (e.g., helpful), or the actor aims at gaining some desired end state (e.g., trying to ingratiate).

Multiple spontaneous inferences

If perceivers indeed make spontaneous inferences about ulterior motives, the question arises how these relate to correspondent inferences which, as we already

know, are also made spontaneously. Previous research indicates that multiple, sometimes even competing inferences are drawn initially in the impression formation process (Reeder, Vonk, Ham, & Ronk, 2004) and that spontaneous inferences can be activated jointly (Ham & Vonk, 2003; Todd, Molden, Ham, & Vonk, in press). For instance, the behavior "John lifts the stone" can lead to co-occurring activation of the inferences 'strong' (referring to John) and 'light' (referring to the stone), even though they designate internal versus external causes of the behavior (Ham & Vonk, 2003).

Assuming that multiple inferences are drawn in case of self-presentational behavior, this would imply even more inconsistency among the inferences than in the previous studies. For example, when participants read that "John volunteered to help paint his boss' house," they might instantly think of "helpful" and "ingratiating" at the same time. These inferences are evaluatively inconsistent (see also Footnote 1) and they exclude each other more or less as possible causes of the behavior: Unlike inferences about internal and external causes, they do not work in an additive way. Yet we do assume that both will be spontaneously activated. Investigating this possibility constitutes the second aim of our study.

We presented participants with descriptions that imply either only a correspondent trait (CT) or can evoke suspicion because they can imply either ulterior motivation (UM) or a correspondent trait (CT). To this end, we manipulated actor-target dependence in descriptions. Dependence is a powerful cue in detecting ulterior motivation (Vonk, 1998, 1999a). In our stimulus materials, the actor is either dependent on the target (e.g., "Jake tells the customer that the coat suits him well", where Jake can be considered dependent upon the customer) or not dependent (e.g., "Jake tells his friend that the coat suits him well"). When the actor is dependent on the target, the description can imply either an ulterior motivation (e.g., "sales talk"), or a

correspondent trait (e.g., "complimenting"). Without dependence, the ulterior motive is less likely and the description predominantly implies a correspondent trait ("complimenting").

Note that slight variations in the context and target of the behavior allow us to create short sentences, as required to demonstrate spontaneous inferences (e.g., Fazio & Olson, 2002; Uleman, Hon, Roman, & Moskowitz, 1996), while also including cues pointing to ulterior motivation. As in other STI research, participants were presented with multiple descriptions. To avoid a description activating inferences easily applicable to subsequent descriptions, we selected a variety of self-presentational behaviors and settings within the ingratiation and self-promotion domains (see Appendix 1).

For descriptions implying both an UM and a CT, we expect to find evidence for both types of spontaneous inferences. For descriptions implying only a CT, we expect to find evidence for activation of a CT only. Also, these descriptions allow us to examine if the strength of a CT is reduced in case of a CT+UM inference.

The generalized relearning paradigm

We measured spontaneous inferences using an implicit measurement paradigm, the "grid relearning paradigm" (Ham & Vonk, 2003)--an adaptation of Carlston and Skowronski's (1994) relearning paradigm with a broader application scope. In the three tasks of this paradigm, participants are presented with a 4x4 information grid. In the first task, in each cell of the grid, behavior descriptions are presented in the cells, for example, "Bart offered the attractive woman a ride home." Participants are instructed merely to read the descriptions. In the second task, cue words are presented in each cell and participants are asked to memorize which word is presented in which cell. Finally, in the third task, recall for the words from the second

task is tested. In some cases (labeled a relearning trial), the cue word presented in the second task represents an inference (in this experiment, an ulterior motive or a corresponding trait) implied by the description presented in that same cell in the first task. For example, "womanizer" is presented in the same cell where the description "Bart offered the attractive woman a ride home" has been presented. In such cases, assuming that an inference of ulterior motive has already been activated spontaneously during the first task, this implies that participants are now observing a combination they already saw before. In effect, then, they are *relearning* the combination. In other cases (labeled learning trials), the cue word presented in the second task is not an implication of the description presented in that same cell in the first task. For example, "womanizer" is presented in the same cell where the description "Ben jumped over the fence" has been presented in the first task. So, in the learning trials, relearning does not occur.

In general, the paradigm is based on the idea that relearning is more effective than learning. If the inference represented by the cue word (either an UM or a CT) has been activated spontaneously while reading the description in the first task, recall should be better in relearning trials than in learning trials, because the exposure to the behavior has produced a spontaneous inference with residual effects that facilitate learning in the second task. These facilitation effects (indicated by lower error rates) were found in several studies on spontaneous social inferences (Carlston & Skowronski, 1994; Carlston et al., 1995; Ham & Vonk, 2003), and the present study will use them to examine spontaneous activation of ulterior motives along with correspondent traits. We expect to find facilitation effects for both UM and CT cue words when the corresponding description implies both (when the actor is dependent on the target), indicating spontaneous activation of inferences about ulterior motives

as well as about corresponding traits. When the corresponding description only implies a CT (when the actor is not dependent on the target), we expect to only find facilitation effects for CT cue words, indicating only spontaneous inferences as in previous STI studies.

Method

Participants. One-hundred-and-twenty-four (87 female, 37 male) students at Radboud University Nijmegen (all native Dutch speakers) participated and received 2 Euros for 25 minutes of participation.

Stimulus materials. Sixteen sets of a behavior description with a concurrent cue word (ulterior motive or corresponding trait) were used. Eight of these were experimental material, the other eight were fillers. Each of the eight experimental descriptions was designed in two versions: one implying both an ulterior motive and a corresponding trait (UM+CT) and one implying only a correspondent trait (CT). Each experimental set contained a cue word representing an ulterior motive (UM cue word) and a cue word representing a corresponding trait (CT cue word).[1] UM cue words refer to an inference reflecting a self-presentational motive of the actor (e.g., "bragging" and "sales talk"), indicating that the behavior should not be taken at face value.

Appendix 1 lists all experimental stimulus materials.

The other eight sets of behavior description and concurrent cue words were not related to self-presentation (e.g., "John lifted the stone") and were solely used as fillers. They were selected from earlier research using this paradigm (see Ham & Vonk, 2003, Appendix, Descriptions 1-8).

Overview of the grid relearning paradigm. The grid relearning paradigm consisted of 3 main tasks: an exposure task, a relearning task, and a cued-recall task.

In each task, a 4x4 grid was displayed on the computer screen. In the exposure task, 16 descriptions were presented: One by one, in random order and randomly distributed across the cells of the grid, each description was displayed for 6 seconds. Participants were instructed merely to read the descriptions. In the relearning task, a cue word was displayed for 4 seconds in each of the cells. The cues were presented in random order. Participants were instructed to memorize which word was displayed in which cell. In half of the trials--the relearning trials--the cue word fitted an implication of the description that had been presented in the same cell during the exposure task. In the other half of the trials--the learning trials--the displayed cue word was unrelated to the description that had been presented in the same cell. Thus, these learning trials did not allow relearning. Note that relearning trials and learning trials used the same cue words, but in the learning trials they were presented in different cells. Finally, during the cued-recall task, participants were asked to recall which cue word had been shown in which cell. This was done by presenting one cue word at a time at the bottom of the screen below the grid and asking participants to click on the cell of the grid in which this cue word had been presented. Participants were not given feedback about whether their response was correct or incorrect.

Of all 16 trials, 8 were experimental trials (implying either UM and CT, or only CT inferences), while the other 8 were fillers. Within the 8 experimental trials, 4 trials were relearning trials and 4 trials were learning trials. Facilitation effects (indicating activation of spontaneous inferences) can be observed by within-subjects comparison of recall in the 4 relearning trials to recall in the 4 learning trials.

Design. The design was a 2 (description: UM+CT-implying vs. CT-implying) x 2 (cue: ulterior motive vs. corresponding trait) x 2 (trial type: relearning vs. learning trial), all manipulated within participants. We used an eight cell within-subjects

design.

This design only allowed for one trial per cell. However, because of counterbalancing all stimulus materials (behavior descriptions and cue words), effects found cannot be due to particular stimuli being associated with particular cells of the design (see next paragraph, and also Footnote 3). Furthermore, the descriptions we used described various types of self-presentational behavior in different contexts, indicating the generalizability of the current findings.

All materials were completely counterbalanced between participants. That is, for each participant 4 sets of the 8 sets of a behavior description with a concurrent cue word (ulterior motive or corresponding trait) were randomly selected for the 4 relearning trials, and 4 sets were chosen for the 4 learning trials. Within both the 4 sets serving on relearning trials and the 4 sets serving on learning trials, 2 sets were randomly selected in which the UM+CT-implying description version was used, and 2 sets were chosen in which the CT-implying description version was used. Likewise, within each of these sets of 2, 1 set was randomly selected for which the UM cue word was used whereas for the other set the CT cue word was used. So, across all 8 experimental trials (the 4 relearning trials and the 4 learning trials), each participant saw 4 UM+CT descriptions, 4 CT descriptions, 4 UM cue words, and 4 CT cue words, while no two trials used the same materials.

Procedure. All participants were individually seated behind a computer. After general introductions, they completed a practice task that consisted of an exposure task and a cued-recall task. In the exposure task, 16 famous pop song titles appeared in different cells of the grid and participants were instructed to read the contents of each cell. In the cued-recall practice task, all 16 song titles were presented one by one at the bottom of the screen and participants were asked in which cell each title had

been shown during the exposure task.

After the practice task, the actual experiment began, starting with the exposure task. Participants were asked to read the descriptions that appeared successively in the cells. In each cell of the grid, in random order, a description was presented for 6 seconds. After a description had been presented, the screen turned blank for 2 seconds and the next description was displayed in another cell.

Between the exposure and the relearning task, a filler task was inserted to interfere with participants' recall of specific information presented (cf. Carlston & Skowronski, 1994). Participants completed five scrambled-word puzzles. Participants were asked to type in the word these letters formed within 60 seconds.

After the filler task, participants completed the relearning task. As in the practice task, participants were instructed to memorize what cue word was presented in which cell. Each cue word was presented for 4 seconds in a cell of the grid; then the screen turned blank for 2 seconds and the next word was presented in another cell. Between the relearning and the cued-recall task, a second word puzzle filler task was inserted with other words.

The last task was the cued-recall assessment. Participants were presented with the words from the relearning task and asked in which cell each cue word had been shown during the previous task. This question was asked about all 16 words, in random order. The question was presented underneath the 4x4 grid, and participants answered by clicking a cell with the computer mouse. For all 16 times this question was asked, participants could click one of all cells, and cells showed no indication of having been clicked previously. Thereby, the dependent variable indicates whether the answer was correct or false. Finally, participants were paid and debriefed.

Results

Error rates were submitted to a 2 (description: UM+CT-implying vs. CT-implying) x 2 (cue: UM vs. CT) x 2 (trial type: relearning vs. learning trial) MANOVA with all factors varied within-subjects.[2] Overall, spontaneous inferences would be indicated by facilitation effects; more accurate recall on relearning trials than on learning trials, which would produce a significant effect of trial type. This effect was significant, $F(1, 123) = 68.43$, $p < .001$. On relearning trials, 38.7% of participants gave the correct answer ($SD = 47.2$) as compared to 17.7% on learning trials ($SD = 38.1$).

Importantly, this overall facilitation effect was qualified by a significant three-way interaction of Description x Cue x Trial Type, $F(1, 123) = 18.32$, $p < .001$. We analyzed the four separate simple effects of trial type (within the two levels of description type and the two levels of cue type) to examine the interaction (see Figure 1 for an overview). First, confirming our main hypothesis, on the two trials for which the description had been UM+CT-implying, the position of a UM cue word was remembered better on the relearning trial ($M = 40.3\%$ correct, $SD = 49.3$) than on the learning trial ($M = 12.9\%$ correct, $SD = 33.7$), indicated by a simple effect of trial type, $F(1, 123) = 26.87$, $p < .001$. Second, on the two trials for which the description had been CT-only implying, a UM cue word was not remembered better on the relearning trial than on the learning trial ($M = 21.8\%$ correct, $SD = 41.4$, vs. $M = 17.7\%$ correct, $SD = 38.4$), $F<1$ for the effect of trial type. Within the level of UM cue words, a significant simple interaction of Trial Type x Description indicates that the memory advantage for UM+CT-implying descriptions was superior to the effect for CT-only descriptions, $F(1, 123) = 10.95$, $p < .01$. Confirming expectations, this finding indicates that spontaneous UM inferences occur when the description implies a UM by referring to a target that the actor depends on.[3]

Third, we examined simple effects of trial type for CT cue words, which would indicate spontaneous CT inferences. As expected, on the two trials for which the description had been CT-only implying, the position of a CT cue word was remembered better on the relearning trial than on the learning trial (M = 56.5% correct, SD = 49.8 vs. M = 17.7% correct, SD = 38.4), indicated by a simple effect of trial type, $F(1, 123) = 46.25$, $p < .001$. This demonstration of activation of STI's replicates earlier results using this research paradigm (Ham & Vonk, 2003) and other versions of it (e.g., Carlston & Skowronski, 1994).

Fourth, we also found evidence of spontaneous CT inferences on the trials on which the cue word was a CT and the description was UM+CT-implying. As expected, on the two trials for which the description had been UM+CT implying, a CT cue word was remembered better on the relearning trial than on the learning trial (M = 36.3% correct, SD = 48.3 vs. M = 22.6% correct, SD = .42), indicated by a simple effect of trial type, $F(1, 123) = 5.66$, $p < .05$. Within the level of CT cue words, a significant simple interaction of Trial Type x Description indicated that the memory advantage for UM+CT-implying descriptions was smaller than for CT-only descriptions, $F(1, 123) = 8.89$, $p < .01$. This suggests that, even though activation of CT inferences does occur in UM+CT-implying descriptions, it is stronger for descriptions that imply CT only. This finding fits earlier findings of inhibitory effects in trait activation (Dijksterhuis & Van Knippenberg 1996): Activation of a stereotype can decrease the retrieval probability of traits that are inconsistent with that stereotype. Similarly, the activation of a CT may have been partially suppressed because of the co-occurring activation of the evaluatively inconsistent UM--an effect which does not occur in case of a CT-only description.

Discussion

The current findings are the first to directly demonstrate that inferences about ulterior, self-presentational motives can be activated spontaneously. When participants read short descriptions in which the actor could have a motive to impress or please the target, they showed memory facilitation effects for trait cues referring to the implied self-presentational motive. In contrast, when the same behavior was enacted toward a neutral target, so the possibility of an ulterior motive was less salient, we obtained only evidence for spontaneous inference of the correspondent trait, and not the ulterior motive. These correspondent traits were also activated when the behavior could imply an ulterior motive, but less strongly so.

These findings provide a fundamental starting point for understanding the spontaneous component of cognitive responses when observing behavior possibly driven by ulterior motives. They suggest that inferences about ulterior motives are at least to some extent comparable to other forms of automatic higher mental processes (e.g., Uleman, Newman, et al., 1996) and can be assessed with research paradigms developed to tap these processes. Just as spontaneous correspondent trait inferences fit Bargh's (1994) four criteria of automaticity, current results suggest inferences about ulterior motives can be made without the explicit intention to do so, without much time for thought, without any control over the process, and without being aware of it. Thereby, our study revealed a fundamental finding about trait inference, namely, that spontaneous inferences do not necessarily imply that the behavior is taken at face value, producing correspondence bias: Perceivers can instantly go beyond the information given by identifying hidden motives of the actor. Importantly, they do so when contextual cues (the target towards whom the behavior is enacted) point to such hidden motives, that is, by considering the entire behavioral field, rather than being engulfed only by the behavior (cf. Vonk, 1998, 1999a).

The second goal of our study was to establish co-occurring inferences about ulterior motives and correspondent traits. Results showed that when a description could imply both, both types of spontaneous inferences were activated. This extends earlier findings (Ham & Vonk, 2003; see also, Todd et al., in press) of co-occurring activation of inferences (STI's and SSI's), and is consistent with Reeder's (2004) notion of multiple inferences. The present results provide a better understanding of the inference process in case of ulterior motivation. We now know that at an automatic, early stage in the attribution process, spontaneous inferences about both correspondent traits and ulterior motives are activated. This does not necessarily violate Fein's (1996) view: Because of the evaluative inconsistency of correspondent and ulterior motives, it seems reasonable to assume that their co-occurring activation instigates thoughtful and elaborate attributional analysis. In contrast with earlier theorizing (e.g., Berscheid et al., 1976; Erber & Fiske, 1984; Fein, 1996; Gilbert, Pelham & Krull, 1988), current results indicate that detection of ulterior motivation and consideration of the entire behavioral field does not solely rest on thoughtful attributional analysis, and that STI's do not necessarily disregard the situation producing correspondence bias.

An important implication of our findings is that spontaneous inferences play a role in the cognitive process of detection and perception of ulterior motivation and self-presentational goals. Probably, inferences about suspicious behaviors involve both an automatic stage (i.e., spontaneous, as indicated by the current research) in which the traits and motives related to the self-presentational goal are activated, along with correspondent inferences, and a controlled stage (as indicated by earlier research, e.g. Fein, 1996) in which the two types of inferences are deliberately weighted against each other.

The current findings extend earlier research on STI's (Crawford, Skowronski, Stiff, & Scherer, 2007) suggesting that suspicion inhibits STI's in general. That is, results confirm inhibition of correspondent trait activation for descriptions implying both correspondent and ulterior motives (as compared with descriptions that imply a correspondent trait only). However, our results also show that activation of other inferences is not entirely inhibited under suspicion: spontaneous inferences about self-presentational motives do occur in these cases.

It can be argued that most of the earlier research on spontaneous inferences (e.g., Uleman et al., 1996) relied on behavioral descriptions that contain no ambiguity regarding the underlying trait. This, of course, has been important in identifying the mechanisms of spontaneous inferences, but lacks the natural ambiguity of real behavior. The current research adds to the work on multiple inferences (see Ham & Vonk, 2003; Reeder et al., 2004; Todd et al., in press) that investigates this type of more ecologically valid behaviors.

To conclude, we have demonstrated that spontaneous inferences of ulterior, self-presentational motives occur. In addition to the SSI's established in earlier research, this indicates that the initial, automatic stage of person perception does not necessarily produce correspondence bias by taking behavior at face value. Contrarily, in this stage, multiple inferences appear to be made that may even be evaluatively inconsistent (e.g., "ingratiating" and "friendly"). By combining the two relatively isolated fields of self-presentation research and person perception research, this opens up new views and research possibilities, improving our understanding of the basics of social inference.

References

Aarts, H., & Dijksterhuis, A. (2000). Habits as knowledge structures: Automaticity in goal-directed behavior. *Journal of Personality and Social Psychology, 78,* 53-63.

Bargh, J. A. (1994). The four horsemen of automaticity: Awareness, efficiency, intention, and control in social cognition. In R. S. Wyer, Jr., & T. K. Srull (Eds.), *Handbook of social cognition* (2nd. ed., pp. 1-40). Hillsdale, NJ: Erlbaum.

Bassili, J. N. (1993). Procedural efficiency and the spontaneity of trait inference. *Personality and Social Psychology Bulletin, 19,* 200-205.

Beach, L., & Wertheimer, M. (1961). A free response approach to the study of person cognition. *Journal of Abnormal and Social Psychology, 62*, 367-374.

Berscheid, E., Graziano, W., Monson, T., & Derner, M. (1976). Outcome dependency: Attention, attribution and attraction. *Journal of Personality and Social Psychology, 34,* 978-989.

Carlston, D. E., & Skowronski, J. J. (1994). Savings in the relearning of trait information as evidence for spontaneous inference generation. *Journal of Personality and Social Psychology, 66,* 840-856.

Crawford, M. T., Skowronski, J. J., Stiff, C., & Scherer, C. R. (2007). Interfering with inferential, but not associative, processes underlying spontaneous trait inference. *Personality and Social Psychology Bulletin, 33*, 677-690.

Dijksterhuis, A. J., & Van Knippenberg, A. (1996). The knife that cuts both ways: Facilitated and inhibited access to traits as a result of stereotype activation. *Journal of Experimental Social Psychology, 32,* 271-288.

Erber, R., & Fiske, S. T. (1984). Outcome dependency and attention to inconsistent

information about others. *Journal of Personality and Social Psychology, 47,* 709-726.

Fazio, R. H., & Olson, M. A. (2002). Implicit measures in social cognition research: Their meaning and uses. *Annual Review of Psychology, 54,* 297-327.

Fein, S. (1996). Effects of suspicion on attributional thinking and the correspondence bias. *Journal of Personality and Social Psychology, 70,* 1164-1184.

Fein, S., Hilton, J. L. & Miller, D. T. (1990). Suspicion of ulterior motivation and the correspondence bias. *Journal of Personality and Social Psychology*, *58*, 753-764.

Gilbert, D. T., & Malone, P. S. (1995). The correspondence bias. *Psychological Bulletin, 117,* 21-38.

Gilbert, D. T., Pelham, B. W. & Krull, D. S. (1988). On cognitive busyness: When person perceivers meet persons perceived. *Journal of Personality and Social Psychology, 54,* 733-740.

Ham, J. & Vonk, R. (2003). Smart and easy: Co-occurring activation of spontaneous trait inferences and spontaneous situational inferences. *Journal of Experimental Social Psychology, 39,* 434-447.

Ham, J., & Van den Bos, K. (2008). Not fair for me! The influence of personal relevance on social justice inferences. *Journal of Experimental Social Psychology, 44, 699-705*.

Ham, J., & Van den Bos, K. (2010). On justice knowledge activation: Evidence for spontaneous activation of social justice inferences. *Manuscript submitted for publication.*

Hassin, R. R., Aarts, H., & Ferguson, M. J. (2005). Automatic goal inferences. *Journal of Experimental Social Psychology*, *41*, 129-140.

Jones, E. E. & Pittman, T. S. (1982). Toward a general theory of strategic self-presentation. In J. Suls (Ed.), *Psychological perspectives on the self* (vol. 1, pp. 231-262). Hillsdale, NJ: Erlbaum.

Jones, E. E., & Davis, K. E. (1965). From acts to dispositions: The attribution process in person perception. In L. Berkowitz (Ed.), *Advances in experimental social psychology* (Vol. 2, pp. 220-266). New York: Academic Press.

Jones, E. E., & McGillis, D. (1976). Correspondent inferences and the attribution cube: A comparative reappraisal. In J. H. Harvey, W. J. Ickes & P. F. Kidd (Eds.), *New directions in attribution research*, vol. 1. Hillsdale, NJ: Erlbaum.

Kirk, R. E. (1982). *Experimental design: Procedures for the behavioral sciences*. Belmont, CA: Brooks/ Cole.

Leary, M. R. (1995). *Self-presentation, Impression management and interpersonal behavior.* Madison, WI: Brown & Benchmark.

Lunney, G. H. (1970). Using analysis of variance with a dichotomous dependent variable: An empirical study. *Journal of Educational Measurement, 7*, 263-269.

Lupfer, M. B., Clark, L. F., & Hutcherson, H. W. (1990). Impact of context on spontaneous trait and situational attributions. *Journal of Personality and Social Psychology, 58*, 39-249.

Reeder, G. D., Vonk, R., Ronk, M. J., Ham, J., Lawrence, M. (2004). Dispositional Attribution: Multiple Inferences About Motive-Related Traits. *Journal of Personality and Social Psychology, 86,* 530-544.

Smith, E. R. (1994). Procedural knowledge and processing strategies in social cognition. In R. S. Wyer, Jr., & T. K. Srull (Eds.), *Handbook of social cognition: Vol. 1, Basic processes* (2nd ed., pp. 99-151). Hillsdale, NJ: Erlbaum.

Smith, E. R., & Lerner, M. (1986). Development of automatism of social judgments. *Journal of Personality and Social Psychology, 50,* 246-259.

Strack, F., & Deutsch, R. (2004). Reflective and impulsive determinants of social behavior. *Personality and Social Psychology Review*, *8*, 320-247.

Todd, A. R., Molden, D. C., Ham, J., & Vonk, R. (in press). The Automatic and Co-occurring Activation of Multiple Social Inferences. *Journal of Experimental Social Psychology.*

Uleman, J. S. (1999). Spontaneous versus intentional inferences in impression formation. In S. Chaiken & Y. Trope (Eds.), *Dual-process theories in social psychology* (pp. 141-160). New York: Guilford press.

Uleman, J. S., Adil Saribay, S., & Gonzalez, C. M. (2008). Spontaneous inferences, implicit impressions and implicit theories. *Annual Review of Psychology, 59,* 329-360.

Uleman, J. S., Hon, A., Roman, R., & Moskowitz, G. B. (1996). On-line evidence for spontaneous trait inferences at encoding. *Personality and Social Psychology Bulletin, 22,* 377-394.

Uleman, J. S., Newman, L. S., & Moskowitz, G. B. (1996). People as flexible interpreters: Evidence and issues from spontaneous trait inference. In M. P. Zanna (Ed.), *Advances in experimental social psychology* (Vol. 28, pp. 211-279). San Diego, CA: Academic Press.

Vonk, R. (1998). The slime effect: Suspicion and dislike of likeable behavior towards superiors. *Journal of Personality and Social Psychology, 74,* 849-864.

Vonk, R. (1999a). Differential evaluations of likeable and dislikeable behaviours enacted towards superiors and subordinates. *European Journal of Social Psychology*, *29*, 139-146.

Vonk, R. (1999b). Impression formation and impression management: Motives, traits, and likeability inferred from self-promoting and self-deprecating behavior. *Social Cognition*, *17*, 390-412.

Vonk, R. (2001). Aversive self-presentations. In R. M. Kowalski (Ed.), *Behaving badly: Aversive interpersonal behaviors*, pp. 79-155. Washington, DC: APA.

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Footnotes

[1]Overall, valence of ulterior motives is more negative than of correspondent motives. This is inherent to the process of trait attribution: People often present themselves in positive and socially desirable ways (leading to positive correspondent inferences), and inferring an ulterior motive implies misleading actor behavior and fake positive qualities (leading to a more negative, ulterior motive inference). However, positivity can be ruled out as a confound: The current experimental design does not examine differences between correspondent inferences versus ulterior motives, but interaction effects between cue type (UM vs. CT) and description type (UM+CT-implying versus CT-implying). The analyses will compare activation of UM cue words with activation of the same UM cue words (because all materials were completely counterbalanced between participants), after presentation of the two description types. Likewise, we will compare activation of CT cue words with the same CT cue words, after presentation of the two description types. Note that these descriptions are identical except for the words used to describe the relationship between the actor and the target (e.g., "John volunteered to help paint his boss' house", versus "…a fellow student's house").

[2]When analyzing error rates, we will analyze binomial data--that is, answers were either correct or wrong. In line with Kirk (1982, pp. 75-76; see also, Lunney, 1970), we used analysis of variance to analyze them.

[3]There might be differences in the rememberability (being able to remember where this word was presented in the grid) of UM cue words versus CT cue words (e.g., because of conceptual overlap such as between "bragging", "show-off" and "flaunt"). However, facilitation effects that indicate activation of UM (or CT) inferences are a comparison between relearning trials and learning trials on which the

cue word always was a UM (or a CT) cue word. Thereby, a comparison is made between correctly remembering the same set of (UM or CT) words on relearning trials and on learning trials. So, the facilitation effect that indicates spontaneous activation of UM inferences is independent of the facilitation effect that indicates spontaneous activation of CT inferences, and any differences in rememberability of UM versus CT cue words are irrelevant to the differential effects of the type of description on these two facilitation effects.

[4]Although in English "complimenting" might be seen as a description of the behavior, the Dutch word for it ("complimenteus") is a trait. The Dutch word for "womanizer" ("versierder") is more positive (has connotations with charmer) than the English word. "Rich" and "in love" do not refer to stable personality traits, but describe inferences about underlying causes of behavior comparable to other characteristics used in the current and earlier research of STI's. We were unable to generate only trait terms to denote underlying causes of self-presentational behaviors, but note that all words describing inferences refer to more or less stable characteristics of an actor that can be reflected in behavior. In everyday life, people not only use trait terms to describe the stable characteristics of others, but also many other inference terms (e.g., interests, values, chronic states, and abilities; Beach & Wertheimer, 1961).

Appendix 1

Descriptions Implying a Self-presentational Motive (UM) and/or Correspondent Trait (CT) Used as Stimulus Material (first and second column) and Cue Words Used in the Memorize and Recall Task (third and fourth column).

	Description UM+CT	Description CT only	UM cue word	CT cue word
1	John volunteered to help paint his boss' house	John volunteered to help paint a fellow student's house	Ingratiating	Friendly
2	Bart offered the attractive woman a ride home	Bart offered his colleague a ride home	Womanizer	Helpful
3	At the party, Jim says he makes $400,000 a year	To the tax inspector, Jim says he makes $400,000 a year	Bragging	Honest
4	Martin buys an expensive Rolex to wear on his date	Martin buys an expensive Rolex to wear on his diving trip	Show-off	Rich
5	Otto asks the elderly widow to marry him	Otto asks the young woman to marry him	Con-man	In love
6	Jake tells his customer that the coat suits him well	Jake tells his friend that the coat suits him well	Sales talk	Complimenting
7	Walter tells his co-workers that a customer complimented him.	Walter tells his wife that a customer complimented him	Impress	Proud
8	Pete used much jargon when talking to his former high school classmates.	Pete used much jargon when talking with his fellow students.	Flaunt	Intelligent

Note. Participants saw all four combinations of UM+CT or CT-implying descriptions and UM or CT cue word. In relearning trials, the cue word fitted an implication of the description that had been presented in the same cell, whereas in learning trials a cue word was selected that was unrelated to the description that had been presented in the same cell. Descriptions and cue words are best possible translations from Dutch.[4]

Figure Caption

Figure 1. Mean percentage of participants who gave the correct answer on a trial as a function of cue word type, description type and trial type.