

Contents lists available at [SciVerse ScienceDirect](http://www.sciencedirect.com)

Journal of Experimental Social Psychology

journal homepage: www.elsevier.com/locate/jesp

FlashReport

Interpersonal sensitivity and self-knowledge: Those chronic for trustworthiness are more accurate at detecting it in others[☆]Tonya M. Shoda, Allen R. McConnell^{*}

Department of Psychology, Miami University, Oxford, OH, 45056, USA

HIGHLIGHTS

- ▶ We explored if chronicity results in greater accuracy in interpersonal sensitivity.
- ▶ Chronicity for trustworthiness was determined with Me/Not Me judgments.
- ▶ Subjects judged if people cheated or cooperated in a real prisoner's dilemma game.
- ▶ Those chronic for trustworthiness could distinguish cheaters from cooperators.
- ▶ Signal detection analyses showed better discrimination, not response bias.

ARTICLE INFO

Article history:

Received 15 November 2012

Revised 24 December 2012

Available online 16 January 2013

Keywords:

Interpersonal sensitivity

Chronic traits

Deception detection

Social perception

ABSTRACT

Previous research has demonstrated that chronically accessible self-knowledge impacts how corresponding traits are perceived in oneself and in others. Although people perceive and judge others in line with their chronic traits, we know less about the accuracy of these judgments. In the current work, we explored whether chronicity results in greater accuracy in interpersonal sensitivity. Using a response time measure of attribute chronicity, we found that individuals for whom trustworthiness was a chronic trait were better able to distinguish cheaters from cooperators in a real life prisoner's dilemma game. Implications for how self-knowledge affects the accuracy of social perceptions are discussed.

© 2013 Elsevier Inc. All rights reserved.

Introduction

Understanding others is critical to social functioning, yet frequently, we must render impressions of others based on scant details in an information-laden world. Although sometimes we benefit from having considerable information about others, often we must rely on more impoverished data, and our initial evaluations may be heavily influenced by observing nonverbal behaviors. In fact, the literature on "thin-slicing" has repeatedly shown that individuals are able to infer a variety of others' states and traits from a distance and with limited knowledge.

For example, trained observers can predict long-term marital stability and happiness from videotaped interactions between newlywed couples (Gottman, Coan, Carrere, & Swanson, 1998). This ability, however, is not limited to trained perceivers. Indeed, untrained students can, with impressive accuracy, predict end-of-semester evaluations of instructors based on 2-s silent video clips of an instructor lecturing (Ambady & Rosenthal, 1993) or accurately describe others' personalities after viewing their office or bedroom (Gosling, Ko, Mannarelli, & Morris,

2002). Thus, the thin-slicing literature supports the ability of perceivers to often draw reasonably accurate inferences from small amounts of information.

Research on *interpersonal sensitivity* (i.e., the ability to accurately sense and perceive one's personal, interpersonal, and social environments; [Bernieri, 2001](#)) and on the ability to decode nonverbal behavior specifically, varies in terms of both the judgments rendered as well as stimuli assessed for those judgments. For example, perceivers may be asked to make judgments of others' personality traits, to identify emotions (e.g., happiness, anger), and to assess behaviors (e.g., lying) or intentions (e.g., aggression). Research suggests these basic skills are widespread, and in many cases, impressive (for a review, [Ambady, Bernieri, & Richeson, 2000](#)). However, individual differences in interpersonal sensitivity exist and domain differences are common (e.g., [Hall, 1984](#); [Hall, Murphy, & Schmid Mast, 2006](#)). For instance, researchers have found weak or nonexistent correlations among many measures of interpersonal sensitivity ([Hall, 2001](#)), suggesting specific decoding skills rather than a single general ability. For example, an individual's ability to detect deception does not predict their ability to identify others' emotions or to accurately infer others' romantic relationship status (e.g., [Hall & Bernieri, 2001](#)).

Despite a number of demonstrations of interpersonal sensitivity in the literature, we still know little about what underlies these abilities

[☆] This work supported by the Lewis Endowed Professorship.

^{*} Corresponding author.

E-mail address: allen.mcconnell@miamioh.edu (A.R. McConnell).

and why individual differences might exist. Accordingly, the current study examines one possible predictor of interpersonal sensitivity performance, chronically accessible self-knowledge. Indeed, our social perceptions are often guided by highly-accessible self-knowledge, shaping our views of self and others (Bruner, 1957; Higgins, 1989; Markus, 1977; McConnell, 2011). When self-relevant knowledge is activated repeatedly and frequently, it can become “chronic” and filter social perceptions even in the absence of recent activation (Bargh, Bond, Lombardi, & Tota, 1986; Higgins, King, & Mavin, 1982). For example, an individual who is chronic for “trustworthiness” will evaluate both their own (e.g., Markus, 1977) and others’ (e.g., Bargh & Pietromonaco, 1982) actions in terms of their implications for honest conduct (see also, Markus, Smith, & Moreland, 1985).

Becoming chronic for attributes such as “trustworthiness” presumably reflects many repeated episodes of attending to and evaluating others with respect to trustworthiness. Because of extensive practice, individuals chronic for trustworthiness may develop relatively greater expertise for developing deception-related contingencies, and thus, they may be especially well-tuned for picking up on cues to dishonesty in others’ behavior even if they cannot explicitly articulate them. Thus, the current work investigated whether people with chronic self-knowledge reveal greater accuracy in their interpersonal sensitivity judgments. Specifically, we combine research on self-concept representation and on interpersonal sensitivity to examine the impact of chronically accessible self-knowledge on people’s ability to evaluate others based on thin-slices of nonverbal information. Past work has shown that individuals who are chronic for an attribute judge themselves and others based on that trait more often (e.g., Bargh & Pietromonaco, 1982; Markus, 1977), but no known research has explored whether these judgments are more accurate.

In this study, we focused on people who were and were not chronic for trustworthiness, reasoning that increased attention to honesty-related behaviors should lead perceivers to develop relevant cue-outcome contingencies over time, providing an advantage in accurately judging honesty in others. Such people might become particularly adept at detecting dishonest behavior because of its considerable diagnostic value (vs. honest behavior, which is less informative) in understanding others (Fiske, 1980; Skowronski & Carlston, 1987). Repetition is critical for the development of expertise, which results in better and more efficient performance (e.g., Proctor & Dutta, 1995; Simon & Chase, 1973), typically in domain specific ways (Ericsson & Lehmann, 1996). Similarly, being chronic for trustworthiness may reflect having greater expertise in decoding behaviors related to honesty and dishonesty. In our study, participants completed a widely-used measure of chronicity, and then they completed interpersonal sensitivity tasks in which they judged strangers based on thin-slices of information (photographs or short 4 s videos).

Method

Participants

44 Miami University undergraduates participated in exchange for credit in their introductory psychology courses.

Measure of chronicity

We used Markus’s (1977) Me/Not Me task to assess the extent to which trustworthiness was a schematic trait for our participants. In this task, the respondents were presented with synonyms and antonyms of three traits commonly used by students to describe themselves and others (i.e., extraverted, trustworthy, vain) one at a time on a computer monitor, and they were instructed to press one of two keys, labeled *me* and *not me*, to indicate whether each trait was descriptive of themselves. Past research has shown that faster “me” responses to a trait

attribute indicates greater chronicity (e.g., Brown & McConnell, 2009; Markus, 1977).

In the current study, judgments involved four words each related to trustworthiness, vanity, and extraversion. The trustworthy items (i.e., trustworthy, honest, deceitful, liar) were selected to capture the extent to which “trustworthiness” was relatively more accessible. We included vanity items (i.e., vain, arrogant, modest, humble) as comparison words because individuals in our participant pool express great certainty about their standing on this dimension, allowing us to have a reliable response latency covariate. Finally, we included extraversion-related items (i.e., extraverted, outgoing, introverted, shy) as control words. Past research in our lab (McConnell, Rydell, & Leibold, 2002) and elsewhere (Fazio, Effrein, & Falender, 1981) has shown that undergraduates have relatively uncertain beliefs about their own extraversion and that simple self-perceptual processes can influence self-evaluations on this dimension. To create our measure of attribute chronicity, we computed a Trustworthy Accessibility Index by subtracting participants’ average response times (RTs) for trustworthiness items from their average RTs for vanity items, with larger scores reflecting relatively greater accessibility for trustworthiness than vanity. A strength of this approach is that it allows us to control for individual differences in RTs (by taking into account the RTs for a comparison construct where participants have clear and certain self-knowledge), reducing the impact of extraneous variability such as conscientiousness, hand–eye coordination, and self-certainty.¹

Interpersonal sensitivity tasks

After completing the measure of chronicity, the participants completed two interpersonal sensitivity tasks during which they made judgments from thin-slices of nonverbal information (order counter-balanced). The first interpersonal sensitivity activity, the smile task, was borrowed from Bernstein, Young, Brown, Sacco, and Claypool (2008), who presented participants with 20 videos (approximately 4 s each) depicting a male or female target one at a time, with each video beginning with the person exhibiting a neutral expression, then smiling, and then returning to a neutral expression. Of these 20 faces, 10 displayed genuine smiles and 10 displayed fake smiles. In the current smile task, the participants were asked to judge whether each smile was real or fake.

During the second activity, the cheater detection task, participants were shown 26 still images of target individuals at the moment when they indicated their choice in a computer mediated, one-trial prisoner’s dilemma game (PDG) for real money (Verplaatse, Vanneste, & Braeckman, 2007). The PDG is a 2-player mixed-motive game (Rapoport & Chammah, 1965) in which an individual can make a cooperative choice (equally benefitting themselves and their partner) or a noncooperative choice (acting selfishly in order to win a larger payment at the expense of a cooperative partner). The participants viewed a still image of different target people right at the moment when they indicated their choice to their PDG partner, with 13 making a cooperative decision and 13 making a noncooperative decision. Thus, half of these targets were attempting to “cheat their partner” by not conveying their noncooperative choice. After being told in general terms about the nature of PDGs, participants in our study were asked to indicate whether they believed that the target in each picture had made a cooperative decision or made a non-cooperative decision (i.e., were cheating their partner).

¹ Supplemental analyses showed that vanity RTs did not predict any dependent variables, suggesting that any observed results with the Trustworthy Accessibility Index cannot be interpreted as the product of chronic vanity and support the value of using vanity responses to control for individual differences in RTs. Analyses were also conducted using only the trustworthiness RTs without the vanity items serving as a covariate, and the pattern of results was similar to those using the Trustworthy Accessibility Index.

Unlike much past research that relies on comparisons of participants' judgments to consensus or to reported personality characteristics, the tasks used in the current study provide stimuli with some degree of veridicality (i.e., the faces really were those of people who displayed a genuine or a fake smile, or who actually cooperated with or cheated another individual).

Results

Chronic traits

Consistent with previous research on chronically accessible self-knowledge (e.g., Brown & McConnell, 2009; Higgins et al., 1982), we used a median split on the Trustworthiness Accessibility Index, categorizing participants as relatively chronic or non-chronic for trustworthiness.²

Chronicity accuracy advantage

When examining performance on the smile task, we found no significant difference between chronic and nonchronic participants ($M = 13.30$, $SD = 2.78$), $F(1,42) = 2.95$, *ns*.³

However, we did find an effect of chronicity on the cheater detection task. Specifically, people for whom trustworthiness was a more chronic trait were more accurate at detecting who cooperated and who cheated in a real prisoner's dilemma game ($M = 12.55$, $SD = 2.24$) than those who were nonchronic for trustworthiness ($M = 10.91$, $SD = 2.39$), $F(1,42) = 5.49$, $p < .03$.

Because this accuracy advantage could result from better identification of cheaters, cooperators, or a combination of the two, we also examined the participants' ability to accurately classify cheaters and cooperators separately. Consistent with past findings (e.g., Verplaetse et al., 2007) of heightened sensitivity toward identifying cheaters in particular, we observed that chronic participants were more accurate at detecting cheaters ($M = 6.36$, $SD = 2.61$) than were nonchronic participants ($M = 4.36$, $SD = 1.92$), $F(1,42) = 8.39$, $p < .01$. There were no differences as a function of chronicity for detecting cooperators, $F(1,42) = 0.19$, *ns*.

Signal detection analysis

To examine whether the accuracy advantage observed for cheater detection was a product of increased sensitivity to nonverbal cues that relate to in-the-moment deception or simply a by-product of response bias (e.g., chronic participants were more willing to label another person as a cheater), we conducted a signal detection analysis to assess whether the aforementioned findings reflected greater discrimination, response bias, or both.

Results further supported the hypothesis that chronically accessible knowledge confers accuracy advantages in interpreting nonverbal cues in assessing congruent traits in others. Specifically, although chronics and nonchronics did not differ with respect to bias (beta; $M = 1.04$, $SD = .32$), $F(1,42) = 1.18$, *ns*, participants who were chronic for trustworthiness exhibited greater sensitivity (d') in distinguishing between cheaters and cooperators ($M = -.10$, $SD = .46$) than nonchronic participants ($M = -.45$, $SD = .53$), $F(1,42) = 5.48$, $p < .03$.

Discussion

These findings extend our knowledge of the implications of chronically accessible self-knowledge on person perception. Specifically, using a response time measure, we found that those for whom trustworthiness was a chronic trait were better able to accurately discriminate between cheaters and cooperators in a real prisoner's dilemma game. Further, signal detection analyses demonstrated that this advantage reflected greater discrimination between cheaters and noncheaters rather than being a response bias that could emanate from heightened concerns of dishonesty in general. Although we observed the predicted outcomes for the cheater detection task, we acknowledge that we did not observe effects with the smile task. Bernstein et al. (2008) found that socially excluded people showed better performance on the smile task than control participants, but perhaps chronicity has a weaker effect than a "hot motivation" like experiencing social rejection. In sum, we view our findings with the cheater detection task as encouraging, but they should be extended to other tasks in future research.

One interesting pattern observed was that the advantage in the cheater detection task among those chronic for trustworthiness was driven by better performance in correctly identifying individuals who had cheated. In fact, individuals who were not chronic for trustworthiness were frequently misled by noncooperators, incorrectly perceiving them as being cooperative (which was reflected in participants' overall low accuracy). Thus the chronicity accuracy advantage observed in the cheater detection task may be more accurately described as a reduction in people's general proclivity to be misled by deceiving individuals. Undoubtedly, identifying cheaters has considerable value in impression formation because immoral behavior is more diagnostic than moral behavior (Fiske, 1980; Skowronski & Carlston, 1987), and our findings of heightened sensitivity toward cheaters in particular comport with similar findings reported by Verplaetse et al. (2007). Clearly, more work is needed to understand how diagnostic asymmetries apply to interpersonal sensitivity, but any finding of heightened sensitivity in detecting cheaters is of value because deception detection is one of the few areas in the interpersonal sensitivity literature where accuracy rarely exceeds chance (e.g., Vrij, 2000).

Although this work represents a first step in investigating the implications of chronically accessible self-knowledge on the accuracy of interpersonal judgments, additional work should study other chronic traits. We focused on trustworthiness given its importance in many critical judgments (e.g., close friendships, romantic relationship fidelity), but many other dimensions of interpersonal sensitivity merit study. Another issue for future work is to identify the mechanisms through which expertise conveys an advantage in interpersonal sensitivity. We suspect that repeated attention devoted to learning cue-outcome contingencies is critical for developing accuracy (and repeated activation will also lead to chronicity), but other factors such as motivation (e.g., Rule, Rosen, Slepian, & Ambady, 2011) or embodiment (e.g., Niedenthal, Mermillod, Maringer, & Hess, 2010) may play an important role too. Although tentative, we view the current findings as important for demonstrating that chronicity not only becomes an important dimension of one's attention for self and others (e.g., Brown & McConnell, 2009; Markus et al., 1985) but may play a significant role in accurately understanding others and the self (e.g., Vazire & Wilson, 2012).

References

- Ambady, N., Bernieri, F. J., & Richeson, J. A. (2000). Toward a histology of social behavior: Judgmental accuracy from thin slices of the behavioral stream. *Advances in Experimental Social Psychology*, 32, 201–271.
- Ambady, N., & Rosenthal, R. (1993). Half a minute: Predicting teacher evaluations from thin slices of nonverbal behavior and physical attractiveness. *Journal of Personality and Social Psychology*, 64, 431–441.
- Bargh, J. A., Bond, R. N., Lombardi, W. J., & Tota, M. E. (1986). The additive nature of chronic and temporary sources of construct accessibility. *Journal of Personality and Social Psychology*, 50, 869–878.

² Analyses treating chronicity as a continuous variable yield consistent results.

³ Signal detection analyses revealed no differences between chronics and nonchronics with respect to response bias (beta; $M = .97$, $SD = .36$) or sensitivity (d' ; $M = .92$, $SD = .92$), $F_s(1,42) < 1.76$, *ns*. For interested readers, the difference on smile task performance between nonchronics ($M = 14.00$, $SD = 1.95$) and chronics ($M = 12.60$, $SD = 3.32$) was nonsignificant.

- Bargh, J. A., & Pietromonaco, P. (1982). Automatic information processing and social perception: The influence of trait information presented outside of conscious awareness on impression formation. *Journal of Personality and Social Psychology*, 43, 437–449.
- Bernieri, F. J. (2001). Toward a taxonomy of interpersonal sensitivity. In J. A. Hall, & F. J. Bernieri (Eds.), *Interpersonal sensitivity: Theory and measurement* (pp. 3–20). Mahwah, NJ: Lawrence Erlbaum.
- Bernstein, M. J., Young, S. G., Brown, C. M., Sacco, D. F., & Claypool, H. M. (2008). Social rejection initiates an adaptive response when discriminating among real and fake smiles. *Psychological Science*, 19, 981–983.
- Brown, C. M., & McConnell, A. R. (2009). When chronic isn't chronic: The moderating role of active self-aspects. *Personality and Social Psychology Bulletin*, 35, 3–15.
- Bruner, J. S. (1957). On perceptual readiness. *Psychological Review*, 64, 123–152.
- Ericsson, K. A., & Lehmann, A. C. (1996). Expert and exceptional performance: Evidence of maximal adaptation to task constraints. *Annual Review of Psychology*, 47, 273–305.
- Fazio, R. H., Effrein, E. A., & Falender, V. (1981). Self-perceptions following social interactions. *Journal of Personality and Social Psychology*, 41, 232–242.
- Fiske, S. T. (1980). Attention and weight in person perception: The impact of negative and extreme behavior. *Journal of Personality and Social Psychology*, 38, 889–906.
- Gosling, S. D., Ko, S. J., Mannarelli, T., & Morris, M. E. (2002). A room with a cue: Judgments of personality based on offices and bedrooms. *Journal of Personality and Social Psychology*, 82, 379–398.
- Gottman, J. M., Coan, J. A., Carrere, S., & Swanson, C. (1998). Predicting marital happiness and stability from newlywed interactions. *Journal of Marriage and the Family*, 60, 5–22.
- Hall, J. A. (1984). *Nonverbal sex differences: Communication accuracy and expressive style*. Baltimore: The Johns Hopkins University Press.
- Hall, J. A. (2001). The PONS test and the psychometric approach to measuring interpersonal sensitivity. In J. A. Hall, & F. J. Bernieri (Eds.), *Interpersonal sensitivity: Theory and measurement* (pp. 143–160). Mahwah, NJ: Erlbaum.
- Hall, J. A., & Bernieri, F. J. (2001). *Interpersonal sensitivity: Theory and measurement*. Mahwah, NJ: Lawrence Erlbaum Associates.
- Hall, J. A., Murphy, N. A., & Schmid Mast, M. (2006). Recall of nonverbal cues: Exploring a new definition of interpersonal sensitivity. *Journal of Nonverbal Behavior*, 30, 141–155.
- Higgins, E. T. (1989). Knowledge accessibility and activation: Subjectivity and suffering from unconscious sources. In J. S. Uleman, & J. A. Bargh (Eds.), *Unintended thought* (pp. 75–123). New York: Guilford Press.
- Higgins, E. T., King, G. A., & Mavin, G. H. (1982). Individual construct accessibility and subjective impressions and recall. *Journal of Personality and Social Psychology*, 43, 35–47.
- Markus, H. R. (1977). Self-schemata and processing information about the self. *Journal of Personality and Social Psychology*, 35, 63–78.
- Markus, H., Smith, J., & Moreland, R. L. (1985). Role of the self-concept in the perception of others. *Journal of Personality and Social Psychology*, 49, 1494–1512.
- McConnell, A. R. (2011). The multiple self-aspects framework: Self-concept representation and its implications. *Personality and Social Psychology Review*, 15, 3–27.
- McConnell, A. R., Rydell, R. J., & Leibold, J. M. (2002). Expectations of consistency about the self: Consequences for self-concept formation. *Journal of Experimental Social Psychology*, 38, 569–585.
- Niedenthal, P. M., Mermillod, M., Maringer, M., & Hess, U. (2010). The Simulation of Smiles (SIMS) Model: A window to general principles in processing facial expression. *Brain and Behavioural Sciences*, 33, 417–480.
- Proctor, R. W., & Dutta, A. (1995). Acquisition and transfer of response-selection skill. In A. F. Healy, & L. E. Bourne Jr. (Eds.), *Learning and memory of knowledge and skills: Durability and specificity* (pp. 300–319). Thousand Oaks, CA: Sage.
- Rapoport, A., & Chammah, A. M. (1965). *Prisoner's dilemma: A study in conflict and cooperation*. Ann Arbor, MI: University of Michigan Press.
- Rule, N. O., Rosen, K. S., Slepian, M. L., & Ambady, N. (2011). Mating interest improves women's accuracy in judging male sexual orientation. *Psychological Science*, 22, 881–886.
- Simon, H. A., & Chase, W. G. (1973). Skill in chess. *American Scientist*, 61, 393–403.
- Skowronski, J. J., & Carlston, D. E. (1987). Social judgment and social memory: The role of cue diagnosticity in negativity, positivity, and extremity biases. *Journal of Personality and Social Psychology*, 52, 689–699.
- Vazire, S., & Wilson, T. D. (Eds.). (2012). *Handbook of self-knowledge*. New York: Guilford.
- Verplaetse, J., Vanneste, S., & Braeckman, J. (2007). You can judge a book by its cover: The sequel. A kernel of truth in predicting cheating detection. *Evolution and Human Behavior*, 28, 260–271.
- Vrij, A. (2000). *Detecting lies and deceit: The psychology of lying and the implications for professional practice*. Chichester: Wiley.