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The social behavior and reputation of the attributionally complex ☆

Lisa A. Fast *, Heather M. Reimer, David C. Funder

Department of Psychology, University of California, 900 University Avenue, Riverside, CA 92521, USA

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Abstract

Attributional complexity (AC, [Fletcher, G. J. O., Danilovics, P., Fernandez, G., Peterson, D., & Reeder, G. D. (1986). Attributional complexity: An individual differences measure. *Journal of Personality and Social Psychology, 51*, 875–884]) is a construct designed to describe individual differences in the motivation and preference for complex attributions for behavior. Scores on the Attributional Complexity Scale (ACS) have been found to be related to a lesser propensity to error and greater accuracy in social judgment. However, little is known concerning how people who score higher on this scale (the attributionally complex) actually behave or are viewed by others. Participants ($n = 178$) completed the ACS, their behavior as videotaped during a social interaction was rated by four observers, and they were described by two acquaintances along numerous personality characteristics. Behavior of individuals higher in AC was directly observed to be relatively open, positive, expressive, and socially skilled. Although AC was unrelated to academic achievement or SAT scores, those higher in AC tended to be described by peers as having social wisdom, thoughtfulness, empathy, and openness. The behaviors and personality characteristics associated with AC likely contribute to good social judgment.

Keywords: Attributional complexity; Social judgment; Reputation; Behavior

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* Corresponding author.
E-mail address: lisa.fast@gmail.com (L.A. Fast).

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1. Introduction

Attributional complexity is a psychological construct that describes the degree to which an individual is interested in understanding the causes of other's behavior and considers many different possible causes (Fletcher, Danilovics, Fernandez, Peterson, & Reeder, 1986). Those higher in attributional complexity are theoretically "like good social psychologists" in that they are more likely to consider dispositional factors, situational factors, and factors operating from the past (Fletcher et al., 1986, p. 883). In contrast, those lower in attributional complexity are theorized to be less likely to think about the causes of behavior or to consider multiple causes. Research has shown that attributionally complex individuals are relatively less likely to fall prey to various errors of social judgment and in some cases achieve greater accuracy, which may provide insight into the psychological basis of good social judgment. Specifically, error and bias in social judgment appears to be significantly reduced when an individual is interested in understanding behavior, able to think about several possible causes of behavior, and given time to deeply process social information (Fletcher, Reeder, & Bull, 1990; Follett & Hess, 2002; Stalder & Baron, 1998).

Little is known, however, about how attributionally complex individuals behave and are viewed by others in their social world and addressing this gap in the literature is important for three reasons. First, attributional complexity would seem to play an important role in social interactions because it involves a specific interest in understanding the behavior of others. Examining behavior and reputation might offer insight into how attributional complexity influences one's standing in his/her social world. Second, several commentators have recently observed that personality and social psychology, often based on self-report questionnaires, seldom directly observes the social behaviors associated with important constructs (e.g. Baumeister & Vohs, 2006; Funder, 2001). Observing an individual's behavior and gathering judgments made by those who know that individual well are important because people do not always do what they say they do (Gosling, John, Craik, & Robins, 1998) and reputations have social consequences that matter (Hofstee, 1994; Hogan, 2005). Moreover, studies correlating attributional complexity with other self-reported personality characteristics have provided a mixed picture of the attributionally complex. Some evidence suggests that they may have a positive reputation and behave in a socially skilled manner, while other evidence suggests that they may be socially detached and awkward. Examining directly observed behavior and judgments made by close acquaintances might help towards resolving the inconsistency from self-report studies. Finally, this research has broader implications for social judgment research. Because attributional complexity appears to be associated with better social judgment, knowledge of the behavioral correlates might suggest which behaviors are associated with good social judgment, and knowledge of the reputational correlates might provide some understanding of its social consequences.

1.1. The Attributional Complexity Scale

From the early 1940s, social psychologists have been interested in how lay social perceivers determine whether the causes of another person's behavior are internal, external, or a combination of the two (Heider, 1944; Jones & Davis, 1965; Kelley, 1973). Several views regarding the attributional process have emerged, and they generally fall into one of two categories. One view proposes that people are cognitive misers and rely on simple heuristics

when attributing the causes of other's behavior (Tversky & Kahneman, 1974), while the other view holds that the attributional process is complex and that people generate and consider multiple causes (Ross & Fletcher, 1985). Moreover, there is empirical evidence to support both views (Fletcher, 1983; Read, 1983, respectively). The Attributional Complexity Scale (ACS) was developed to reconcile these opposing perspectives (Fletcher et al., 1986). Rather than categorically argue that all people are attributionally simple or all people are complex, the ACS was designed to address the possibility that individuals may vary in the extent to which their attributions are more or less sophisticated. In other words, "some people are simpletons and others are experts" (Fletcher et al., 1986, p. 882).

The ACS consists of seven subscales that delineate the various ways in which an individual's attributions may be more or less complex. The subscales address the degree to which an individual: is motivated to understand behavior, prefers complex rather than simple explanations for behavior, thinks about his/her own thinking processes involved in attribution, is aware of the influence of interactions with others on behavior, tends to infer internal causes of behavior, tends to infer external causes of behavior, and tends to infer causes from the past to explain behavior (Fletcher et al., 1986). Higher scores on each subscale reflect a higher degree of attributional complexity and the subscales are typically combined into a total attributional complexity score. Theoretically, an attributionally complex individual is someone who prefers to think deeply about the causes of behavior, but is able to use complex to simple attributions depending on the restrictions of the situation. In contrast, an attributionally simple individual is limited to elementary and uncomplicated explanations for behavior.

Research confirms that the ACS has largely accomplished the original goal underlying its development. Individuals do seem to vary in the complexity of their attributions and the attributional complexity scale seems to capture these differences. Laboratory experiments have found that high scorers spontaneously generate a larger number of causes for behavior, prefer complex rather than simple attributions, and take more time in processing difficult problems than their lower scoring counterparts (Fletcher, Rosanowski, Rhodes, & Lange, 1992; Fletcher et al., 1986).

Attributional complexity is further distinguished from other related concepts (e.g. cognitive complexity and self-complexity). Compared to the global concept of cognitive complexity, which is defined and operationalized differently across researchers (Crano & Schroder, 1967; Crockett, 1965), the ACS was designed to be specifically relevant to the domain of behavioral attribution. The ACS is also different from self-complexity, in that self-complexity involves the number of distinct self-aspects represented in a persons' self-knowledge (Linville, 1987), whereas the ACS involves the degree of complexity used to understand others' behavior. Fletcher et al. (1986) further propose that attributional complexity is distinct from intellectual ability. These researchers argue that attributional complexity involves a specific interest in social behavior and a motivation to understand it. A person can be intellectually gifted but remain uninterested in and not motivated to understand the causes of people's behavior (high intelligence, low AC). On the other hand, a person can also be intellectually ungifted but still interested in and motivated to understand behavior (low intelligence, high AC). In support of this, Fletcher et al. (1986) found that psychology majors score significantly higher in attributional complexity than natural science majors and, using American College Test (ACT) scores as a proxy measure of intelligence, they found that attributional complexity scale has a near zero correlation with intellectual ability.

1.2. Attributional complexity and social judgment

Given that those with higher attributional complexity prefer complex explanations for the causes of behavior, yet there seems to be little relationship between attributional complexity and intellectual ability, one may wonder if the attributionally complex are idly complicated in thought with no real benefit for social judgment. However, high scorers seem to be socially astute as they are less prone to make a variety of classic attributional errors. For example, when asked to write an essay defending an opinion contrary to one's initial position (a dissonance-producing counter-attitudinal essay), those higher in attributional complexity are more likely to externally justify writing the essay, and are therefore less likely to change their initial opinion (Stalder & Baron, 1998). At least three studies have also found that attributional complexity is associated with significant reductions in committing the fundamental attribution error (Blumberg & Silvera, 1998; Devine, 1989; Follett & Hess, 2002). However, it is not the case that the attributionally complex are simply more likely to make external rather than internal attributions for behavior, because it has been demonstrated that attributional complexity has a near zero correlation with locus of control ($r = -.01$) (Fletcher et al., 1986). Fletcher et al. (1990) found that attributionally simple individuals are less likely to make this error when depth of information processing is restricted, while attributionally complex individuals are less likely to commit the Fundamental Attribution Error when in-depth processing is encouraged. Finally, in conditions where participants do not have to justify their impressions, attributionally complex individuals are less likely to form erroneous group stereotypes (Schaller, Boyd, Yohannes, & O'Brien, 1995).

The attributionally complex also seem to follow attributional rules better than their lower scoring counterparts. When given problems in which one needs to determine whether a behavior was caused by the person, circumstance, or stimulus, those higher in attributional complexity make more correct attributions, especially when the problems increase in difficulty (Fletcher et al., 1992). Along with enhanced ability to follow attributional rules and reductions in error, attributional complexity seems to be related to increased accuracy in social judgment as well. Fletcher et al. (1990) found that in conditions where adequate time is given to process information, attributionally complex individuals are more accurate at predicting authors' real attitudes toward a topic after reading the authors' counter-attitudinal essay. Similarly, in conditions where extensive processing of dispositional information is encouraged, those higher in attributional complexity produce more accurate personality judgments of their interaction partners (Fletcher, Grigg, & Bull, 1988).

1.3. Attributional complexity, behavior, and reputation

The attributional complexity scale has made important contributions to the understanding of social cognition and error. Error and bias in social judgment appears to be significantly reduced when an individual is motivated to understand behavior, able to consider several possible causes for behavior, and given time to deeply process social information. Because attributional complexity seems to greatly influence how an individual thinks about his/her social world, it is appropriate to seek to know more concerning the social reputation and behavior of the attributionally complex. Directly observing what attributionally complex individuals do is important because it might offer some insight into how they interact with others and why they tend to have better social judgment.

Although it is assumed that they have better judgment because they think deeply and elaborately about social information, it may also be that they behave in ways that facilitate better social judgment. For example, attributionally complex individuals might ask more questions and gather more information about their social worlds. Researchers infrequently gather directly observed behavioral data and it is crucial to know what people actually do, in addition to what they self-report (Baumeister & Vohs, 2006; Funder, 2001).

Little is also known concerning the possible social consequences of attributional complexity, and the opinions that others have of an individual may be one such consequence. Reputation is important because it affects the opportunities a person is given and it influences the way an individual is treated by those around him/her (Hofstee, 1994; Hogan, 2005). For example, if an individual is perceived as warm and thoughtful, then those around him/her will likely seek interactions with and befriend that person. In contrast, potential peers will likely avoid and dislike an individual who is cold and inconsiderate. Moreover, there is evidence to suggest that other's opinions have a causal influence on behavior (Rosenthal & Rubin, 1978); an individual who is expected to be cold and inconsiderate may be more likely to behave that way. Examining reputation might provide knowledge concerning the social consequences of attributional complexity.

Predicting the reputation and behaviors of the attributionally complex is difficult because the theory focuses on cognitive aspects of the construct rather than behavior or personality characteristics. Moreover, two rather opposing views can be imagined. One might hypothesize that they would have a favorable reputation and be viewed as having personality characteristics associated with interpersonal effectiveness (e.g. warmth and compassion) because they have good understanding of human behavior. The attributionally complex may behave in an empathic and socially skilled manner because they are motivated and able to read the cues others display and act accordingly. On the other hand, one can also imagine that the attributionally complex might come off as socially detached, awkward, and vulnerable. Others may be aware that the attributionally complex dedicate much energy to scrutinizing the causes of their behavior and this could be perceived as anxiety, social detachment, or even obsessiveness. Unfortunately, research offers little guidance concerning which of these opposing views may be more accurate as attributional complexity has not been correlated with acquaintance ratings of personality or behavior; even the studies that have related it to self-reports offer only indirect support to both views.

Indirect support that the attributionally complex would have a favorable reputation comes from a study suggesting that they report being more empathic. Joireman (2004) correlated attributional complexity with the empathic concern and perspective taking scales from the Davis (1983) Interpersonal Reactivity Index and found it to be related to both perspective taking and empathic concern, a relationship mediated by perspective taking. However, the sensitivity subscale of the Hogan (1969) Empathy Scale is most conceptually similar to the perspective taking and empathic concern scales used in Joireman's (2004) study, and Funder and Harris (1986) found a near zero correlation between attributional complexity and this subscale ($r = .01$).

Further confusion is added by the finding that attributional complexity has a strong positive relationship with scores on the Profile of Nonverbal Sensitivity (PONS: Rosenthal, Hall, DiMatteo, Rogers, & Archer, 1979; Funder & Harris, 1986). The PONS measures individual differences in the ability to decode nonverbal behavior and conflicting personality correlates of the PONS have been found. Some studies find that high PONS scorers are socially skilled, honest, and open to experience (Funder & Harris, 1986), while

other studies find that they are relatively shy, socially awkward, and vulnerable (Ambady, Hallahan, & Rosenthal, 1995; Rosenthal & DePaulo, 1979). These results offer indirect but opposing evidence concerning the personality characteristics that may be associated with attributional complexity.

Finally, results from the depression literature indirectly suggest that the attributionally complex might have unfavorable reputations. Depression has been linked to a greater degree of self-focused attention (Ingram, 1990), and because attributional complexity is related to in-depth and complex causal reasoning about social targets (including the self), researchers have looked for a link between it and depression. Although the magnitude ranges from small to large, there seems to be a consistently positive relationship between attributional complexity and self-reported dysphoria or sub-clinical depression (Conway, Giannopoulos, Csank, & Mendelson, 1993; Flett, Pliner, & Blankstein, 1989; Marsh & Weary, 1989). Because research suggests that sub-clinical levels of depression are associated with maladaptive social interactions, negative responses by others toward the depressed, and a generally negative social reputation (Furr & Funder, 1998), a relationship between attributional complexity and dysphoria would indirectly suggest that individuals high in attributional complexity may have unfavorable social reputations.

1.4. The current study

Taken together, currently available data do not paint a clear picture of the attributionally complex. Correlations with self-reports of various personality characteristics offer indirect support for two opposing views. Moreover, very little can be said about how *others* perceive the personalities of individuals higher and lower in attributional complexity or how they *behave*—a comment that also applies to many other constructs in the psychological literature—and the goal of the current study was to address this gap in knowledge.

The current study is designed to assess the social reputation and behaviors of the attributionally complex. Data from the Riverside Accuracy Project Phase-II (RAP-II) includes a variety of psychological information about 178 target participants, including self-reports on the Attributional Complexity Scale (Fletcher et al., 1986), judgments of personality provided by two informants who knew the target well, social behavior in a laboratory context recorded on videotape and coded by four trained observers, and information concerning academic achievement and ability. We hypothesize that because higher levels of attributional complexity are theorized to be related to deeper thought and greater accuracy in social judgment and perhaps also positive social emotions, the attributionally complex will be higher in behaviors and aspects of social reputation associated with thoughtfulness, social wisdom, social effectiveness, emotional expressiveness, and cheerfulness. We further predict that because attributional complexity is theorized to be a specific social orientation and not a broad intellectual ability, it will be unrelated to academic achievement or ability.

2. Method

The data for the current study were collected as part of the larger Riverside Accuracy Project—Phase-II, which was designed to examine the factors involved in accurate personality judgment. The complete project put students through several different sessions and procedures, and because some students missed one or more of these sessions, the *n* for particular analyses varies. Although other papers have come out of the RAP-II data set, the

analyses do not overlap with previous projects (Letzring, Wells, & Funder, 2006; Letzring, Block, & Funder, 2005; Vazire & Funder, 2006; Wagerman & Funder, 2007) or with future planned projects.

2.1. Participants

Participants were undergraduate students from the University of California, Riverside who participated in the Riverside Accuracy Project Phase-II. A core group of 178 target participants (91 males, 87 females) were recruited through announcements made in class and the placement of flyers throughout campus, and were paid $10.00/h. The ethnicity distribution was 39% Asian American, 17% Mexican American, 15% Caucasian, 12% African American, and 17% other or not specified.

2.2. Acquaintances

Targets were asked to nominate two acquaintances who knew them well and were available in the immediate area (a total of 332 acquaintances) to provide information about the targets. Acquaintances were also paid $10/h.

2.3. Overview of procedures

Target participants came to four separate laboratory sessions and completed several take-home packets. Only the lab visits and materials relevant to the current study will be reviewed here. During the first session, targets were given a take-home packet consisting of several personality questionnaires. They were also asked for the names and contact information for two local acquaintances that knew them well. These acquaintances were then contacted by project staff and scheduled to visit the lab to provide personality judgments of the target participants. In the second session, targets were placed in three-person groups and these groups were videotaped during a social interaction. The behavior of each participant was later coded by trained observers.

2.4. Measures

2.4.1. The Attributional Complexity Scale

The ACS (Fletcher et al., 1986) includes a total scale score and seven subscales delineating various aspects of attribution. The subscales are labeled: Motivation (to understand the causes of behavior), Preference for complexity, Metacognition (of thinking processes involved in attribution), Behavior (is influenced by interaction with others), Internal (infer internal causes of behavior), External (infer external causes of behavior), and Temporal (infer causes from the past to explain behavior). For example, the three highest loading items in our sample (which are also the items with the highest item-total correlations) include "I don't usually bother to analyze and explain people's behavior", "If I see people behaving in a really strange or unusual manner I usually put it down to the fact that they are strange or unusual people and don't bother to explain it any further", and "I think very little about the different ways that people influence each other" (all reversed items). Each participant provided self-ratings on the ACS. The Cronbach's *alpha* reliability coefficients for each subscale ranged from .50 to .65, with a total scale reliability of .88. This is

slightly higher than the .85 found by Fletcher et al. (1986). The average inter-correlation of the seven subscales was .48, slightly higher than the .40 found by Fletcher et al. (1986). Subsequently, all results will be reported in reference to the total scale score.

2.4.2. The California Adult Q-set

The California Adult Q-set (CAQ: Block, 1961, as modified for use by nonprofessionals by Bem & Funder, 1978) includes 100 wide-ranging personality characteristics (e.g. "Is critical, skeptical, not easily impressed"). Each Q-item was separately rated on a Likert scale from 1 (*extremely uncharacteristic*) to 9 (*extremely characteristic*) by two acquaintances for each target participant when available. Two acquaintances provided ratings for 154 of the target participants, and 24 targets were described by a single acquaintance. For targets with two acquaintances, a composite score was created by averaging the two ratings for each CAQ item. The average inter-rater reliability per item is intraclass $r = .29$ ($SD = .15$).

2.4.3. The Big Five Inventory

The Big Five Inventory (BFI; John, Donahue, & Kentle, 1991) consists of 44 items that measure the global personality traits of extraversion, neuroticism, openness, agreeableness, and conscientiousness. This version was designed for quick assessment for use with 1st and 3rd party ratings. Ratings were obtained using a Likert scale ranging from 1 (*disagree strongly*) to 5 (*agree strongly*) by the self and each of two acquaintances when available. Each participant provided self-ratings and two acquaintances provided ratings for 154 of the target participants, and 24 targets were described by a single acquaintance. For targets with two acquaintances, the two ratings were averaged to form a single composite score of each BFI trait. BFI scale reliabilities have been shown to be similar to those of the much longer scales of Costa and McCrae (1992) NEO-FFI (John et al., 1991). In our sample, the Cronbach's *alpha* reliability coefficients for each scale based on self-reports are as follows: Extraversion = .85, Neuroticism = .86, Conscientiousness = .83, Agreeableness = .78, and Openness = .80. The *alpha* reliability coefficients for each scale based on a composite of the acquaintance reports are as follows: Extraversion = .87, Neuroticism = .84, Conscientiousness = .87, Agreeableness = .85, and Openness = .83. The intraclass *r* inter-rater reliability coefficients based on acquaintance ratings for each of the Big Five are as follows: Extraversion = .63, Neuroticism = .60, Conscientiousness = .59, Agreeableness = .56, and Openness = .37.

2.4.4. Academic achievement and ability measures

Information about academic achievement was obtained from the University Registrar's Office after each participant completed a release form granting access to their academic records. The registrar provided the current GPA (achievement) and either SAT verbal and math scores or SAT verbal and math scores converted from American College Testing (ACT) scores (ability) for each target participant.

2.4.5. Three-person interactions

Each of the targets participated in a videotaped laboratory interaction with two other people they had never met before. The gender composition of the interaction groups was counter-balanced so that an equal number of groups were composed of all males (MMM), all females (FFF), two females and one male (FFM), and two males and one female (MMF). Targets were quasi-randomly assigned to one of five different interaction

conditions, ranging from minimal interaction time to three hours. Only the data from four of these conditions is included in the behavioral analyses because the minimal interaction condition (during which participants silently completed questionnaires) did not allow a sufficient range of displayed behaviors. Preliminary analyses determined that mean level behavioral ratings from the RBQ were more similar than different across the four conditions, so all of the conditions will be analyzed together.[1]

Participants were seated at a table and given one of the following four verbal instructions: (1) Trivia Quiz Condition: Participants were given a packet containing 380 trivia questions, each of which had a single correct answer, and they had 50 min to jointly work through the questions and arrive unanimously at the correct answers. (2) Short Unstructured Condition: Participants were told that they could talk about whatever they liked for 50 min; no further directions or suggestions were made. (3) Get to Know Condition: Participants were told that their task was to get to know each other as well as possible over 50 min. (4) Long Unstructured Condition: Participants were told that they could talk about whatever they liked for three hours and no further directions or suggestions were made. Halfway through this interaction, the participants were given a short break and provided with snacks and the opportunity to use the restroom.

At the end of the interactions, participants were asked to rate each of their two interaction partners on three items measuring likeability. The first item was "In general, how much did you enjoy the interaction with the other person?", the second item was "How much did you like the other person?", and the third item was "To what extent would you like to interact more with the other person in the future?" Ratings were made using a Likert scale ranging from 1 (*not at all*) to 5 (*very much*). A composite rating for each item was created for each target participant by averaging the two ratings given by their interaction partners. The average inter-correlation between the items was $r = .74$; therefore, the items were combined to form a likeability scale. The reliability of the likeability scale is *alpha* = .89.

2.4.6. The Riverside Behavioral Q-sort

Behavior was coded using The Riverside Behavioral Q-sort (RBQ: Funder, Furr, & Colvin, 2000), which consists of 64 items that describe a broad range of meaningful social behaviors (e.g. "Tries to control the interaction", and "Acts playful"). RBQ items describe behavior at a mid-level of generality between micro-level (e.g. Number of smiles) and macro-level impressions (e.g. "Is successful"). The RBQ was used to code the behavior of each participant in the videotaped three-person interaction. Each target's behavior was rated by four coders, by sorting the items into a nine category, forced choice, quasi-normal distribution ranging from 1 (*extremely uncharacteristic*) to 9 (*extremely characteristic*). The four scores on each item were averaged to form a composite for each target (mean *alpha* of the 64 items = .61, $SD = .17$).

3. Results

Attributional complexity (AC) was correlated with acquaintance ratings of the CAQ and BFI, the RBQ, and academic achievement and ability measures. Individuals higher

[1] The vector correlation between RBQ behavioral ratings demeaned by condition with attributional complexity and RBQ behavioral ratings (not demeaned) with attributional complexity was $r = .99$; therefore, subsequent analyses will be based on behavioral ratings with means.

in attributional complexity were directly observed to be behaviorally more open (e.g. "Displays a wide range of interests"), to be socially skilled (e.g. "Exhibits social skills"), and to be more prone to express energy and express positive emotions (e.g. "High enthusiasm and energy level" and "Behaves in a cheerful manner") than those lower in attributional complexity (see Table 1). The attributionally complex were also more "Expressive in face, voice, and gesture" and more likely to "Volunteer information about the self" compared to those lower in attributional complexity. Some behavioral correlates directly contradict any view that the attributionally complex might be more detached, awkward, and vulnerable. Negative correlations suggest that they are not "Detached from the interaction", they do not have an "Awkward interpersonal style", and they do not show "Physical signs of tension or anxiety" (vulnerable). The male–female RBQ vector correlation is $r = .57$, $p < .0001$, suggesting that the pattern of behavioral correlates is generally similar across genders. The behavioral correlates support our prediction that AC is related to social effectiveness. The attributionally complex seem to behave in an engaged, open, expressive, and positive manner, which is probably why their behavior is also described as socially skilled.

Of the 100 acquaintance-rated CAQ items, 25 correlations were significant at a p-level of .05 (see Table 2), more than 2 times the number nominally expected by chance, and the correlates support our predictions. Those higher in attributional complexity tended to be described as generally thoughtful (e.g. "Genuinely values intellectual and cognitive matters" and "Is concerned with philosophical problems") and as possessing a good deal of social wisdom (e.g. "Is turned to for advice and reassurance" and "Is socially perceptive of a wide range of interpersonal cues"). The attributionally complex tend to be further described by their acquaintances as socially skilled (e.g. "Is personally charming") and open (e.g. "Enjoys esthetic impressions" and "Has a wide range of interests"). A few CAQ correlates also suggest that AC is related to empathy, including "Warm, compas-

Table 1
Correlations between attributional complexity and behavior

RBQ item	$r_{(total)}$	$r_{(female)}$	$r_{(male)}$
Positive correlations			
Displays a wide range of interests	.25**	.37**	.22
Volunteers information about the self	.22*	.26*	.17
High enthusiasm and energy level	.20*	.08	.27*
Exhibits social skills	.19*	.19	.19
Expressive in face, voice, gesture	.17*	.21	.12
Behaves in cheerful manner	.17*	.02	.21
Negative correlations			
Physical signs of tension or anxiety	−.23**	−.30*	−.17
Talks at partner(s)	−.22*	−.27*	−.18
Acts irritated	−.22*	−.14	−.27*
Awkward interpersonal style	−.20*	−.16	−.21
Keeps partner at a distance	−.19*	−.15	−.20
Seems detached from interaction	−.19*	−.15	−.20
Aware of camera	−.18*	−.11	−.21

Note. Total $n = 132$; females $n = 65$ and males $n = 67$. The male–female RBQ vector correlation is $r = .57$, $p < .0001$. RBQ item content is abbreviated.

* $p \leqslant .05$.

** $p \leqslant .01$.

Table 2
Correlations between attributional complexity and acquaintance CAQ ratings

CAQ item	$r_{(total)}$	$r_{(female)}$	$r_{(male)}$
Positive correlations			
Genuinely values intellectual and cognitive matters	.39**	.51**	.29**
Is turned to for advice and reassurance	.35**	.37**	.29**
Introspective	.33**	.21*	.37**
Proffers advice	.32**	.24*	.35**
Enjoys esthetic impressions; is esthetically reactive	.32**	.24*	.32**
Appears to have a high degree of intellectual capacity	.31**	.48**	.14
Behaves in a giving way toward others	.29**	.39**	.20
Has a wide range of interests	.27**	.32**	.21*
Is concerned with philosophical problems	.25**	.22*	.27**
Warmth, compassionate	.23**	.26*	.16
Is verbally fluent; can express ideas well	.23**	.30**	.11
Is socially perceptive of a wide range of interpersonal cues	.22**	.13	.31**
Is personally charming	.22**	.21*	.19
Appears straightforward, candid in dealing with others	.22**	.25*	.19
Behaves in an assertive fashion	.22**	.25*	.18
Behaves in a sympathetic or considerate manner	.21**	.21*	.17
Concerned w/own body and physiological functioning	.21**	.35**	.06
Is talkative	.21**	.17	.17
Values own independence and autonomy	.20**	.20	.17
Has a readiness to feel guilt	.20**	.04	.26**
An interesting, arresting person	.20**	.25*	.14
Negative correlations			
Is emotionally bland; has flattened affect	−.28**	−.21*	−.30**
Handles anxiety and conflicts with repressive tendencies	−.24**	−.28**	−.20
Is guileful, deceitful, manipulative	−.22**	−.34**	−.11
Extrapunitive; tends to transfer or project blame	−.21**	−.34**	−.07

Note. Total $n = 178$; females $n = 87$ and males $n = 91$. The male–female CAQ vector correlation is $r = .45$, $p < .0001$. CAQ item content is abbreviated.

* $p \leqslant .05$.

** $p \leqslant .01$.

sionate'' and ''Behaves in a sympathetic or considerate manner''. The reputational correlates are largely in convergence with the behavioral correlates, and the male–female CAQ vector correlation is $r = .45$, $p < .0001$, suggesting that the pattern of reputational correlates is generally similar across genders.

In convergence with the CAQ and RBQ correlates, there is a significant and positive association between ACS scores and acquaintance and self-rated extraversion and openness to experience (see Table 3). The pattern of correlations appears generally similar across genders. Although the correlation between AC and acquaintance-rated agreeableness is large and significant for females, but near zero for males, the difference in correlation across genders is much smaller with self-reports.

As a final test of whether or not the attributionally complex have a positive reputation and behave in a socially skilled manner, correlations between AC and ratings of likeability were examined. Likeability ratings were taken from the same interactions from which the behavioral observations were made. Each participant was rated on three likeability items by his/her two interaction partners, and these items were combined to form a likeability scale. There was a positive and significant correlation between ACS scores and being liked

Table 3
Correlations between attributional complexity and acquaintance and self BFI ratings

Scale	$r_{(total)}$	$r_{(female)}$	$r_{(male)}$
BFI—Informant report			
Extraversion	.21**	.24*	.15
Agreeableness	.14	.28**	.05
Conscientiousness	.13	.15	.05
Neuroticism	.09	−.04	.11
Openness	.27**	.27*	.25*
BFI—Self-report			
Extraversion	.24**	.18	.25**
Agreeableness	.13	.19	.12
Conscientiousness	.16*	.18	.15
Neuroticism	.00	−.22*	.12
Openness	.44**	.42**	.50**

Note. For acquaintance ratings, $n = 178$ (females $n = 87$ and males $n = 91$). For self-ratings, $n = 195$ (females $n = 90$ and males $n = 105$). The sample size varies between self and acquaintance analyses because we were unable to obtain acquaintance ratings for all participants.

* $p \leqslant .05$.

** $p \leqslant .01$.

by interaction partners ($r = .22$, $p < .01$). It seems clear that the attributionally complex have a generally favorable social reputation and display positive social behaviors.

Our predictions that attributional complexity would not be related to academic achievement and ability were supported as well. There were no significant relationships between ACS and college GPA ($r = .09$), SAT verbal scores ($r = .12$), or SAT math scores ($r = .03$). This supports past research that attributional complexity involves a high degree of domain-specific thought and interest in understanding human behavior, rather than being a global measure that taps academic ability.

4. Discussion

The heavily questionnaire-dependent fields of social and personality psychology all-too-rarely gather the difficult-to-obtain data that allow assessment of the relationship between important constructs, social reputation, and directly observed social behavior (Baumeister & Vohs, 2006; Funder, 2001). One purpose of the present study was to provide one small step towards beginning to alleviate this gap in the literature, by examining the interesting and important construct of attributional complexity. Results suggest that attributional complexity is associated with how an individual behaves and how an individual is perceived by others. Those higher in attributional complexity seem to have a positive reputation and behave in a manner that facilitates pleasant social interactions.

Our results showed that those higher in attributional complexity were directly observed to be expressive, show a wide range of interests, display emotionally positive energy, exhibit social skills, and do not show signs of anxiety or have an awkward interpersonal style. An attributionally complex person is also relatively likely to be described by close acquaintances as having social wisdom, thoughtfulness, social skill, openness, and empathy. Acquaintances also tend to describe those higher in attributional complexity as someone to turn to for advice and as someone who is introspective and values philosophical mat-

ters, has a wide variety of interests and is generally compassionate and perceptive. This pattern was also apparent in the positive correlations with the Big Five factors of extraversion and openness, and in correlations with ratings of likeability. Finally, attributional complexity was not related to academic ability or achievement.

It is interesting that although there was no relationship with traditional measures of academic ability and achievement, acquaintances describe those higher in attributional complexity as intelligent and intellectually oriented. Perhaps social judgments of intelligence are more related to social competence than academic prowess.

Past research has shown the individual difference variable of attributional complexity to reduce the degree to which people fall prey to various errors of social judgment. It seems likely that, along with the deep and elaborate attributional style of the attributionally complex, their engaged, open, expressive, positive, and socially skilled behavior also contributes to their good social judgment. It also seems likely that these behaviors contribute to why attributionally complex individuals have a highly favorable social reputation marked by social wisdom, thoughtfulness, and openness to experience. Social perceivers seem to detect and appreciate the great care that the attributionally complex take in understanding the people around them. Interestingly, there is some recent evidence from the animal literature that the evolution of positive social emotions may have provided the motivation and ability to understand others, which might have led to the development of socially skilled behavior (Hare, 2007; Hare & Tomasello, 2005).

The implications of these findings to social judgment research are twofold. First, there seem to be social consequences to having better or worse social judgment, in that those who have good judgment appear to enjoy a reputation for being socially wise, thoughtful, open, and empathic. Second, the specific behaviors that appear to be involved in good interpersonal judgment are: displaying a wide range of interests, behaving in an enthusiastic and cheerful manner, being expressive and volunteering information about oneself, being engaged in interactions with others, and not showing signs of anxiety or behaving in an awkward manner. Overall, thinking deeply about social information and engaging with others using open, expressive, and positive behavior may be important components of interpersonal accuracy, and attributional complexity, socially skilled behavior, and interpersonal accuracy may lead to a highly favorable social reputation.

References

Ambady, N., Hallahan, M., & Rosenthal, R. (1995). On judging and being judged accurately in zero-acquaintance situations. *Journal of Personality and Social Psychology, 69*, 518–529.

Baumeister, R. F., & Vohs, K. D. (2006). Are personality and social psychologists behaving themselves? *Dialogue, 21*, 3–7.

Bem, D., & Funder, D. (1978). Predicting more of the people more of the time: Assessing the personality of situations. *Psychological Review, 85*, 485–501.

Block, J. (1961). *The Q-sort method in personality assessment and psychiatric research*. Palo Alto, CA: Consulting Psychologists Press.

Blumberg, S., & Silvera, D. (1998). Attributional complexity and cognitive development: A look at the motivational and cognitive requirements for attribution. *Social Cognition, 16*, 253–266.

Conway, M., Giannopoulos, C., Csank, P., & Mendelson, M. (1993). Dysphoria and specificity in self-focused attention. *Personality and Social Psychology Bulletin, 19*, 265–268.

Costa, P., & McCrae, R. (1992). *Revised NEO Personality Inventory (NEO-PI-R) and NEO Five-factor Inventory (NEO-FFI): Professional Manual*. Odessa: Psychological Assessment Resources, Inc.

Crano, W., & Schroder, H. (1967). Complexity of attitude structure and processes of conflict resolution. *Journal of Personality and Social Psychology, 5*, 110–114.

Crockett, W. H. (1965). Cognitive complexity and impression formation. In B. A. Maher (Ed.). *Progress in experimental personality research* (Vol. 2, pp. 47–90). New York: Academic Press.

Davis, M. H. (1983). Measuring individual differences in empathy: Evidence for a multidimensional approach. *Journal of Personality and Social Psychology, 44*, 113–126.

Devine, P. G. (1989). Overattribution effect: The role of confidence and attributional complexity. *Social Psychology Quarterly, 52*, 149–158.

Fletcher, G. (1983). The analysis of verbal explanations for marital separation: Implications for attribution theory. *Journal of Applied Social Psychology, 13*, 245–258.

Fletcher, G., Grigg, F., & Bull, V. (1988). The organization and accuracy of personality impressions: Neophytes versus experts in trait attribution. *New Zealand Journal of Psychology, 17*, 68–77.

Fletcher, G. J., Reeder, G. D., & Bull, V. (1990). Bias and accuracy in attitude attribution: The role of attributional complexity. *Journal of Experimental Social Psychology, 26*, 275–288.

Fletcher, G. J., Rosanowski, J., Rhodes, G., & Lange, C. (1992). Accuracy and speed of causal processing: Experts versus novices in social judgment. *Journal of Experimental Social Psychology, 28*, 320–338.

Fletcher, G. J. O., Danilovics, P., Fernandez, G., Peterson, D., & Reeder, G. D. (1986). Attributional complexity: An individual differences measure. *Journal of Personality and Social Psychology, 51*, 875–884.

Flett, G. L., Pliner, P., & Blankstein, K. R. (1989). Depression and components of attributional complexity. *Journal of Personality and Social Psychology, 56*, 757–764.

Follett, K., & Hess, T. M. (2002). Aging, cognitive complexity, and the fundamental attribution error. *Journals of Gerontology: Series B: Psychological Sciences and Social Sciences, 57B*, 312–323.

Funder, D. C. (2001). Personality. *Annual Review of Psychology, 52*, 197–221.

Funder, D. C., Furr, R. M., & Colvin, R. (2000). The Riverside behavioral Q-sort: A tool for the description of social behavior. *Journal of Personality, 68*, 450–489.

Funder, D. C., & Harris, M. J. (1986). On the several facets of personality assessment: The case of social acuity. *Journal of Personality, 54*, 528–550.

Furr, R. M., & Funder, D. C. (1998). A multimodal analysis of personal negativity. *Journal of Personality and Social Psychology, 74*, 1580–1591.

Gosling, S., John, O. P., Craik, K. H., & Robins, R. W. (1998). Do people know how they behave? Self-reported act frequencies compared with on-line codings by observers. *Journal of Personality and Social Psychology, 74*(5), 1337–1349.

Hare, B. (2007). From non-human to animal mind: What changed and why? *Current Directions in Psychological Science, 16*, 60–64.

Hare, B., & Tomasello, M. (2005). Human-like social skills in dogs? *Trends in Cognitive Sciences, 9*, 439–444.

Heider, F. (1944). Social perception and phenomenal causality. *Psychological Review, 51*, 358–374.

Hofstee, W. (1994). Who should own the definition of personality? *European Journal of Personality, 8*(3), 149–162.

Hogan, R. (1969). Development of an empathy scale. *Journal of Consulting and Clinical Psychology, 33*, 307–316.

Hogan, R. (2005). In defense of personality measurement: New wine for old whiners. *Human Performance, 18*, 331–341.

Ingram, R. E. (1990). Self-focused attention in clinical disorders: Review and a conceptual model. *Psychological Bulletin, 107*, 156–176.

John, O. P., Donahue, E. M., & Kentle, R. L. (1991). *The "Big Five" inventory: Versions 4a and 54*. Berkeley, CA: Institute of Personality Assessment and Research.

Joireman, J. (2004). Relationships between attributional complexity and empathy. *Individual Differences Research, 2*, 197–202.

Jones, E., & Davis, K. (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.

Kelley, H. (1973). The process of causal attribution. *American Psychologist, 28*, 107–128.

Letzring, T., Wells, S., & Funder, D. (2006). Quantity and quality of available information affect the realistic accuracy of personality judgment. *Journal of Personality and Social Psychology, 91*, 11–123.

Letzring, T. D., Block, J., & Funder, D. C. (2005). Ego-control and ego-resiliency: Generalization of self-report scales based on personality descriptions from acquaintances, clinicians, and the self. *Journal of Research in Personality, 39*, 395–422.

Linville, P. W. (1987). Self-complexity as a cognitive buffer against stress-related illness and depression. *Journal of Personality and Social Psychology, 52*, 663–676.

Marsh, K., & Weary, G. (1989). Depression and attributional complexity. *Personality and Social Psychology Bulletin, 15*, 325–336.

Read, S. J. (1983). Once is enough: Causal reasoning from a single instance. *Journal of Personality and Social Psychology, 45*, 323–334.

Rosenthal, R., & DePaulo, B. M. (1979). Sex differences in accommodation in nonverbal communication. In R. Rosenthal (Ed.), *Skill in nonverbal communication: Individual differences* (pp. 68–103). Cambridge, MA: Oelgeschlager, Gunn, & Hain.

Rosenthal, R., Hall, J., DiMatteo, M. R., Rogers, P., & Archer, D. (1979). *Sensitivity to nonverbal communication: The PONS test*. Baltimore: Johns Hopkins University Press.

Rosenthal, R., & Rubin, R. (1978). Interpersonal expectancy effects: The first 345 studies. *Behavioral and Brain Sciences, 1*, 377–415.

Ross, M., & Fletcher, G. J. O. (1985). Attribution and social perception. In G. Lindzey & E. Aronson (Eds.), *The handbook of social psychology* (3rd ed., pp. 73–122). New York: Random House.

Schaller, M., Boyd, C., Yohannes, J., & O'Brien, M. (1995). The prejudiced personality revisited: Personal need for structure and formation of erroneous group stereotypes. *Journal of Personality and Social Psychology, 68*, 544–555.

Stalder, D. R., & Baron, R. S. (1998). Attributional complexity as a moderator of dissonance-produced attitude change. *Journal of Personality and Social Psychology, 75*, 449–455.

Tversky, A., & Kahneman, D. (1974). Judgment under uncertainty: Heuristics and biases. *Science, 185*, 1124–1131.

Vazire, S., & Funder, D. (2006). Impulsivity and the self-defeating behavior of narcissists. *Personality and Social Psychology Review, 10*, 154–165.

Wagerman, S., & Funder, D. (2007). Acquaintance reports of personality and academic achievement: A case for conscientiousness. *Journal of Research in Personality, 41*, 221–229.