Influences of Emotional Intelligence on Perceptions of Trustworthiness

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Abstract

By adopting social exchange theory and the affect-infusion-model, we hypothesized that emotional intelligence (EI) would have an impact on three perceptions of trustworthiness – ability, integrity and benevolence – at the beginning of a relationship. We also hypothesized that additional information would gradually displace EI in forming the above perceptions. Our experimental results do not support the hypotheses that EI has an impact on the perceptions at the beginning of a relationship. However, they support the hypothesis that additional information is significant in forming the perceptions of ability and integrity but not of benevolence. Results also suggest that EI could significantly, yet negatively, affect the perception of benevolence when additional information is revealed. Practical implications, limitations, and future research are then discussed.
Influences of Emotional Intelligence on Perceptions of Trustworthiness

Emotional intelligence (EI) has attracted much attention since Goleman published his book “Emotional Intelligence” in 1995. EI has been found to help people cope with stress (Zeidner, Matthews, & Roberts, 2006), live healthier lives (Ciarrochi & Blackledge, 2006; Salovey, 2006), and have better quality of social interactions (Lopes, Salovey, & Straus, 2007). How to apply EI to workplace and leadership is also a topic for much literature (Goleman, 1998; George, 2000; Zhou & George, 2003; Caruso, Bienn, & Kornacki, 2006; Tim & Amanda, 2006). Another topic that draws researchers’ interests is trust. Trust has been found positively related to job performance and negatively related to counterproductive behaviors such as absenteeism or intentions to resign (Cunningham & MacGregor, 2000; Colquitt, Scott, & LePine, 2007). It has also been seen as an effective tool to counter the expectation of opportunistic behavior and to lower transaction costs (McEvily, Perrone, & Zaheer, 2003). In fact, recent research has found that both trust and EI contribute to the performance of relationship managers in the banking industry (Heffernan, O'Neill, Travaglione, & Droulers, 2008).

Is there then, any relationship between EI and trust? What researches have agreed so far is that emotions can affect trust (Jones & George, 1998; Dunn & Schweitzer, 2005; Colquitt et al., 2007). EI, which comprises skills such as acknowledging and managing emotions, is therefore considered a key to establish trust (Druskat & Wolff, 2001). However, how EI can contribute to the formation of trust has been rarely explored. It is still unknown whether a high-EI individual is more inclined to trust or whether a high-EI individual is better equipped to project a trustworthy image or both. In this paper we will investigate the relationship between
Influences of Emotional Intelligence on trustworthiness and EI first. We try to develop a mechanism to explain the relationship between EI and trustworthiness by the inclusion of social exchange theory (Blau, 1964) and the affect-infusion model (Forgas, 1995). From this mechanism we propose a number of hypotheses. These hypotheses are then tested by data collected through an experiment. The final results will be discussed in detail.

Social Exchange Theory

Blau (1964)’s social exchange theory explains how trust between two people evolves. Social exchange is defined as an individual’s voluntary actions that are motivated by the returns he or she expects to elicit from others. The exchange is a slow process and a person initiates this process by offering small favors to another individual. Such small favors may induce an obligation to the latter party to return some favors. If the latter party returns what the first party has expected, the latter party demonstrates trustworthiness. Further, trust can then be reinforced through regular discharge of obligation and gradual expansion of exchanges over time (Whitener, Brodt, Korsgaard, & Werner, 1998).

To keep the social exchange process continuing, one needs to overcome a number of uncertainties which do not exist in an economic exchange transaction. In an economic exchange transaction, both parties normally stipulate in advance of the transaction their individual rights and obligations, time-frame of fulfillment, as well as the consequences of violation. However, all these items remain vague to each party in a social exchange transaction. In a social exchange transaction, it is not easy for one to know what constitutes an appropriate and equitable return to a received favor. Appropriateness and equity can only be judged in the eyes of the initiator (Blau, 1964). Although there might be some commonly accepted practice for returning favors, for example, a supervisor offers a meal for staff members who have done extra work, individual difference in response to a return may still exist. To tackle individual difference, especially at an
early stage of a relationship in which no prior record can serve as a guideline, one needs to discover the other party’s intentions through other clues.

Clues can come from a number of non-verbal behaviors, which include head-nodding, eye-contact, gestures, tone and voice, etc (Elfenbein & Ambady, 2002). These behaviors might be a manifestation of a person’s internal emotional state such as happiness, apathy, frustration or poignancy. The ability to establish the link between emotional states and behaviors will give a person a better chance of discharging his or her obligations under a social exchange transaction, and thus exhibiting his or her trustworthiness (Blau, 1964).

The Affect Infusion Model

Trustworthiness, on the other hand, can be viewed as a judgment one needs to make about another party in a relationship. A judgment can be formed, according to Forgas’s (1995) affect-infusion-model, by adopting one of four strategies: direct access, motivated processing, heuristic processing and substantive processing. Two of these four strategies are influenced by affects, which include both moods and emotions, but the other two are not. Affects, for example, have little role to play in forming a judgment under a direct access strategy. A direct-access strategy means that a person reaches a judgment based on his or her pre-existing and stored evaluations of the latter party. This strategy requires little elaboration (Forgas & George, 2001). For example, it is unlikely for a secretary to ruminate his or her boss’s trustworthiness after working together for ten years. Another strategy, motivated-processing, is used when a person is under strong motivational pressure to achieve a particular outcome. Such motivational pressure and achievement desire are so strong that he or she will not allow his or her affective state to influence his or her judgment. An example is that an interviewee is unlikely to allow his or her mood to color his or her judgment during a job interview.
The remaining two strategies, however, are disturbed by a person’s moods and emotions. A heuristic-processing strategy means that a person simply deduces his or her judgment from his or her current affective state (George, 2000). When he or she feels good, his or her judgment tends to be positive and vice versa. However, it has been argued that in a complex organizational context, this strategy is seldom adopted (Forgas & George, 2001). If uncertain and unpredictable social encounters are prevalent, one may adopt a substantive-processing strategy (Forgas & Wyland, 2006). Substantive-processing means that an individual needs to elaborate extensively and during the elaboration process affect is likely to infuse into the judgment. For example, when a new manager negotiates with the head of other department about the division of responsibility in a project, the new manager might not possess enough information about the other party’s trustworthiness. Since the decision is important, he or she might try to make a best conjecture based on the association of information on hand with his or her own experiences. Positive experiences are then more likely to be retrieved and interpreted favorably when he or she is in good moods, and vice versa.

Three of the above four strategies are claimed to be related to the judgment of trust: heuristic-processing, substantive-processing and direct-access (Dunn & Schweitzer, 2005). One might adopt a heuristic-processing strategy or a substantive-processing strategy to appraise a target person’s trustworthiness when the latter party is a complete stranger. Whichever strategy is chosen, the decision will be influenced by one’s affective state. However, as one gets to know a target person better, judgment will be made through direct-access strategy, in which affects play little role.

**Emotional Intelligence**

The affect-infusion model indicates that moods affect an individual’s judgment subconsciously under heuristic or substantive-processing strategy. Consequently, it is reasonable
to postulate that an individual may alter others’ judgments through recognizing and skillfully handling their emotions and moods (George, 2000; Forgas & George, 2001; Forgas & Wyland, 2006). High-EI people, some argue, normally possess such ability (Goleman, 1995; Caruso et al., 2006; Greenberg, Greenberg, & Antonucci, 2007). This leads us to believe that the presence of high-EI individuals might speed up the formation of a trustful relationship.

However, what constitutes EI has still been subjected to disputes. At present, there are different models and measures of EI. One common way to categorize EI is the division between ability-based EI (Mayer & Salovey, 2007) and trait-based EI (Bar-On, 2000; Goleman, 2000; Petrides, Pita, & Kokkinaki, 2007). The ability-based model is adopted in this paper for three reasons. First, previous researches have shown that trait-based EI, unlike ability-based EI, has excessive overlap with standard personality traits such as the Five-Factor Model (Brackett & Geher, 2006; Mayer, Salovey, & Caruso, 2008; Zeidner, Roberts, & Matthews, 2008). By adopting a trait-based model, it will then be difficult to identify what eventually contributes to the final outcomes: personality or emotional skills. Second, other research has pointed out that trait-based EI is too encompassing (Locke, 2005). For example, Goleman has already included trustworthiness under the component of self-management within his EI model (Goleman, 2000). Why such a component has been included in the EI model in the first place is questionable (Mayer, Salovey, & Caruso, 2008). The ability-based model, on the other hand, restricts itself to only emotions and intelligence-related aspects. It is therefore more meaningful to investigate whether the relationship between emotional abilities and trustworthiness really exists than to simply assume them as a single construct. Third, research has also indicated that the self-report questionnaire used by trait-based models is more vulnerable to faking than is the expert and general-consensus based questionnaire used by the ability-based model (Day & Carroll, 2008).
Consequently, results will be more reliable if the measurement itself is less likely to be subjected to manipulations.

The ability-based model of EI, as defined by Mayer & Salovey (2007), involves four abilities: (1) the ability to accurately perceive and express emotions; (2) the ability to generate feelings to assist thinking; (3) the ability to understand emotions and their progression; and (4) the ability to regulate and manage emotions. Here, the term emotion is equivalent to the term affect, which includes both moods and emotions, used in the affect infusion model (Forgas, 1995).

These abilities have been found helpful in certain organizational settings. For example, EI has been found to be positively correlated with organizational commitment and conflict resolution (Cartwright & Pappas, 2008). Additionally, Carmeli & Josman (2006) have discerned that supervisors’ ratings of employees’ altruism are positively related to employees’ EI. It is likely that organizational commitment, conflict resolution, and altruism might have some connection with trust.

**Trustworthiness**

The formation of a trust relationship depends both on a trustor’s tendency to trust and the trustworthiness of a trustee. The two are nonetheless interrelated. If a trustee is not regarded as trustworthy, a trustor’s tendency to trust will be low. What then, makes a trustor believe that a trustee is trustworthy? Butler (1991) has discovered ten conditions of trustworthiness: availability, competence, consistency, discreetness, fairness, integrity, loyalty, openness, promise fulfillment, and receptivity. These ten conditions have later been combined into three antecedents of trust: ability, integrity and benevolence by Mayer, Davis, & Schoorman (1995). Since then, these three antecedents of trust have been widely adopted in trust literature (Gill, Boies, Finegan, & McNally, 2005). Indeed, later empirical researches have shown that ability,
benevolence and integrity are all significantly and positively related to trust (Mayer & Gavin, 2005; Clark & Payne, 2006).

Nevertheless, all the above suggest that trustworthiness can be ascertained only after all the above behaviors become apparent (Whitener et al., 1998). If this is the case, trust between two parties can only be created after a certain period of time. However, it has been discovered that even before the actual behaviors are exhibited, a mere display of trustworthy signals could enhance the image of trustworthiness. For example, the simple inclusion of a statement of privacy policy or unconditional-money-back guarantee on a website could increase the probability of purchase, even though the statement has not been verified (Lee, Ang, & Dubelaar, 2005). Also, the fact that many organizational policies, such as delegation of authority or procedural justice, contribute to the creation of trust is partly due to the affective component inherent in these policies (Konovsky & Pugh, 1994; Konovsky, 2000). These policies enhance the trust of staff members partly because they feel they are respected by the organization (Whitener et al., 1998). It means that by appealing to a trustor’s feeling, a trustee might look more trustworthy than others. Elsbach (2004) has further proposed that a person can polish others’ perception of his or her trustworthiness through appropriate self-disclosure, choice of language and facial expressions. Moreover, in a qualitative study of physician-patient relationships, researchers have discovered that physicians’ dispositions do impact on a patient’s inclination to trust (Cook, Kramer, Thom, Stepanikova, Mollborn, & Cooper, 2004). Patients tend to place more trust in physicians who exhibit eye-contact or attentive listening than in other physicians who do not. This indicates that a person may polish his or her image of trustworthiness through sensitively selecting facial expression or body language.

Perhaps the counseling literature has shown the most striking evidence that a person can garner trust from others before actual incidents of ability, integrity and benevolence become
Influences of Emotional Intelligence on apparent. Lee, Uhlemann, & Haase (1985) have shown that from the clients’ standpoint, counselors’ facial expression, head nod, voice, gesture, smile, speech, posture and eye-contact account for fifty-five percentage of the variance in their trustworthiness rating. Another study has also discovered that clients give more favorable ratings to a counselor who exhibits high levels of eye-contact, direct body orientation, and leaning forward (Fretz, Corn, Tuemmler, & Bellet, 1979). Furthermore, the time period during which clients form the trust opinion is relatively short and it ranges from only ten to twenty minutes (Lee et al., 1985; Fretz et al., 1979).

Hypotheses

The main interest of this paper is to explain the interaction between a person’s EI and others’ perception of his or her trustworthiness through the application of social exchange theory (Blau, 1964) and the affect-infusion model (Forgas, 1995). Social exchange theory (Blau, 1964) predicts that in the beginning of a relationship, a person can demonstrate his or her trustworthiness by catching non-verbal signals and responding appropriately. High-EI individuals are those who are sensitive to emotional clues underlying non-verbal signals. They are also more competent than low-EI individuals in understanding the signals and displaying appropriate facial expression. Accordingly, they have a better chance than low-EI individuals in projecting a trustworthy image on others. The affect infusion model (Forgas, 1995), on the other hand, provides the link between affects and judgment. An individual will judge an unknown person’s trustworthiness through affect-infused strategies such as heuristic or substantive-processing. High-EI individuals are those who are well-versed in managing others’ emotional state; therefore, they are better equipped than low-EI individuals to influence another person’s formation of judgment of trustworthiness during the affect-infused stage of processing. These could be the reasons why counselors who demonstrate gestures such as a head nod, a smile and
eye-contact attract more trust from clients than those who do not (Fretz et al., 1979; Lee et al., 1985).

We are going to describe in detail how EI can affect each of the perceptions of trustworthiness: ability, benevolence and integrity. According to Mayer et al. (1995), ability is defined as a group of skills that a person possesses in a specific domain, which is the same as competence in one of Bulter’s (1991) ten conditions. A supervisor’s group of skills, for example, could be difficult for a new employee to assess accurately. The new employee may then seek other clues. One of them could be his or her supervisor’s confidence at work. A physician’s display of confidence when expressing medical opinions has been considered by patients as a clue about his or her competence (Cook et al., 2004). Similarly, when a supervisor faces a crisis but is able to remain calm and composed in dealing with the task at hand, it might project an image of confidence. This image of confidence might in turn varnish others’ perceptions of his or her ability. In fact, even under normal conditions, a person probably needs to overcome anxiety and fear in order to demonstrate his or her ability confidently in the face of strangers.

High-EI individuals are those who are highly aware and good at understanding and managing negative feelings. They are therefore more likely than low-EI individuals to display confidence.

Alternatively, a subordinate’s current state of moods and emotions may also have impact on his or her judgment of the supervisor’s ability because of affect-infused strategies adopted at the early stage of a relationship. Under this condition, if the supervisor is able to acknowledge the affective state of his or her subordinate, understand the causes, and change his or her mood from negative to neutral or even positive, it is likely that the subordinate’s perception of the supervisor’s ability will be improved. In fact, a similar actual case has been described by Caruso et al., (2006). Here, a manager had noticed her new subordinate’s discomfort by observing his facial expression, quavering tone, and nervous tapping of fingers. She then discussed with him
and pinpointed the reasons behind the nervousness and pacified his anxiety. Therefore, our first hypothesis is:

H1a: A high-EI person is more likely than a low-EI person to be perceived as competent when others possess little information and evaluation about him or her.

As the relationship progresses, people will nonetheless change their way of forming trustworthy perceptions. Social exchange theory (Blau, 1964) forecasts that as more social exchanges take place, people will view the other party’s trustworthiness based on how well the other party has reacted to signals in the past. The affect infusion model (Forgas, 1995) alternatively suggests that people’s strategy of making judgment of trustworthiness shifts from heuristic or substantive processing to direct access processing as more information about the target person is revealed. In other words, people tend to retrieve past experience and evaluations, rather than other clues, to form a judgment about another person’s trustworthiness. The judgment process becomes quick and is seldom influenced by their affective status. In the trust literatures, it has been described that people’s perceptions of trustworthiness will eventually depend on the actual behavioral exchanges and incidents of trustworthiness (Mayer et al., 1995; McKnight, Cummings, & Chervany, 1998; Jones & George, 1998; Gill et al., 2005). At this stage, it seems that a high-EI individual does not have much advantage over a low-EI individual to change another persons’ judgment concerning him or her.

Accordingly, we propose that people will form a perception of another person’s ability based more on facts than based on feelings when more information is unveiled. For example, after certain periods, a subordinate may accumulate, directly or indirectly, more knowledge about his or her supervisor’s true abilities. He or she will then adjust his or her initial trust with regard to the updated information. Therefore, our second hypothesis is:
H1b: As more information and experience about the other person is obtained, one will judge the other person’s ability based on the information and experience, independent of EI.

Integrity means that a trustor believes that another party will adhere to a set of principles that the trustor finds acceptable (Mayer et al., 1995). The definition encompasses five conditions proposed by Butler (1991): consistency, promise fulfillment, fairness, discreetness and integrity. Nonetheless, it will be very difficult to find out what principles a trustee will adhere to at the very beginning of a relationship. Hoping to discover leakages about another party’s seriousness or laxity concerning certain principles, a trustor might search clues such as tone, voice or facial expression from the other party. These leakages might then constitute an initial perception of integrity. Knowing the importance of the initial perception, a high-EI individual might be more careful in expressing his or her emotions. Also, the ability to perceive and understand emotions enables a high EI individual to be more alert to others’ expression of doubts and the ability to manage others’ emotions assists him or her to handle the doubts adeptly. For example, high-EI individuals may be better than low-EI individuals in stipulating a promise with determination and in clarifying when the other party shows perplexity. Therefore, our first hypothesis concerning the perception of integrity is as follows:

H2a: A high-EI person is more likely than a low-EI person to be perceived as a person of integrity when others possess little information and evaluations about him or her.

However, the initial assessment of integrity formed is unlikely to last. Additional information is likely to be treated as a test for the initial assessment; that is, people might adjust the initial assessment upwards or downwards based on the other party’s behaviors. Gradually, actual behaviors will displace the initial assessment and constitute the foundation of a new perception. At this point, the new perception is unlikely to be influenced by another person’s EI. Consequently, we have the following hypothesis concerning the perception of integrity.
H2b: As more information and experience about the other person is revealed, one will judge the other person’s integrity based on the information and experience, independent of EI.

Benevolence has been defined as a trustee’s intention to do good to a trustor, without egocentric profit incentive (Mayer et al., 1995). This definition comprises four of Butler’s (1991) ten conditions: loyalty, openness, receptivity and availability. In other words, the trustor believes that the kindness shown by the trustee is intrinsically motivated, rather than out of extrinsic rewards (Johnson & Grayson, 2005). To judge whether a complete stranger’s kindness is intrinsically or extrinsically motivated is never easy. Under uncertainty, one may form a judgment simply relying on the atmosphere that surrounds an interaction. The atmosphere is more likely to be amiable when one can feel the other party’s empathy and care. Empathy has been found to be significantly and positively related to one’s EI (Schutte, et al., 2001; Mayer, Caruso, & Salovey, 2007), possibly due to a high-EI individual’s ability to identify and understand emotions. Also, high-EI employees have been found to be more altruistic than low-EI employees in the eyes of their supervisors (Carmeli & Josman, 2006). Therefore, our hypothesis concerning EI and benevolence is:

H3a: A high-EI person is more likely than a low-EI person to be perceived as a person of benevolence when others possess little information and evaluations about him or her.

Similar to the cases of ability and integrity, we predict that the importance of empathy on the perception of benevolence will fade when more information becomes available. This could be due to two reasons. First, an individual will shift his or her decision making strategy from heuristic or substantive processing to direct access; the same as in the cases of ability and integrity. Second, if additional information reveals that the trustee is not as benevolent as an individual originally thought, the individual’s feeling will be hurt and the bitter feeling may offset the original favorable feelings. Therefore, our last hypothesis is:
H3b: As more information and experience about the other person is obtained, one will judge the other person’s benevolence based on the information and experience, independent of EI.

Method

Participants

Thirty business school students from the Norwegian School of Economics and Business Administration (NHH) were recruited as participants. Of these, six students were given the role of actors, while the other twenty-four were given the role of assessors. Actors were given instructions on how to play the games and each actor would be assigned to play against ten to twelve assessors on different days and times. Assessors played the games as strangers and assessed the trustworthiness of actors. Three of the six actors had taken the MSCEIT, which is an online EI test that adopts the Mayer-Salovey-Caruso ability-EI model (Mayer, Salovey, & Caruso, 2002), before the experiment was held and the other three took the MSCEIT online after completion of the experiment. Of the six actors, two were female and four were male. Their average age was 23.17. Of the twenty-four assessors, nine were female and fifteen were male. Their average age was 23.13. All assessors and actors were debriefed about their roles after the end of the experiment.

Materials

MSCEIT

We used the online version of MSCEIT (Mayer et al., 2002) for this study. It consists of four EI branches and each branch has two different tasks. The four EI branches include perceiving emotions, facilitating thoughts, understanding emotions and managing emotions. Their respective split-half reliabilities reported in the manual (Mayer et al., 2002) are $r = .91$, $r = .79$, $r = .80$ and $r = .83$. The overall reliability for total EI is $r = .93$. 
Experimental condition 1 – Hypothesis 1a

This paper-based game contains two parts. In the first part there is a Sukodu game together with the rules of play. In the second part there is a question asking the players to rate how much each of them believes the other party can finish another Sukodu game within three minutes (11 points Likert-type scale; 0 means not believe; 10 means strongly believe), provided with the information that in general fifty percent of people can finish it within three minutes. Another much easier Sukodu game is then followed.

Experimental condition 2 – Hypothesis 1b

This paper-based game contains three parts. It is the same as the game in experimental condition 1 except that the stimulus is inserted between the first and the second part. The stimulus consists of a Sukodu game which is easier than that of the first part but more difficult than that of the last part. The stimulus is intended to give the player more information about the other party’s ability.

Experimental condition 3 – Hypothesis 2a

This paper-based game contains two parts. The first part requests the two players to make an agreement on how much they will share with each other if one of them becomes the winner of the Kr.1000 lucky draw. In the second part there are questions asking each player to state whether he or she will honor the agreement and to rate how much he or she believes the other party will honor the agreement in part 1 (11 points Likert-type scale; 0 means not believe; 10 means strongly believe).

Experimental condition 4 – Hypothesis 2b

This paper-based game contains three parts. It is the same as the game in experimental condition 3 except that the stimulus is inserted between the first and the second part.
stimulus consists of a ten-time prisoner’s dilemma game (PDG). The stimulus is intended to give the player more information about the other party’s behaviors.

**Experimental condition 5 – Hypothesis 3a**

This paper-based game contains two parts. The first part requests the two players to state how they would spend Kr.500 000 if someone gives it to each of them and requires each of them to spend the whole sum within one week. In the second part they are informed that one-fifth of the participants will be chosen to give half of his or her endowment to the other party and the other party can choose to accept the money or return it to the original owner. There are questions asking each player to state whether he or she will accept the money if the other party is chosen and to rate how much he or she, if chosen, believes the other party will return the money (11 points Likert-type scale; 0 means not believe; 10 means strongly believe).

**Experimental condition 6 – Hypothesis 3b**

This paper-based game contains three parts. It is the same as the game in experimental condition 5 except that the stimulus is inserted between the first and the second part. The stimulus consists of a ten-time prisoner’s dilemma game (PDG) which is the same as in experimental condition 4. The stimulus is intended to give the player more information about the other party’s behaviors.

**Procedures**

Actors were given briefing sessions on how they should play each game one week before the experiment was actually to take place. They were also given the names of the assessors in order to ensure they would not play against someone they had already known. During the games, the actors were told to pretend to be other assessors and not to disclose their true identities as actors. Except for some specific instructions that we mention in the following sections, they were told to behave as naturally as possible.
Assessors were randomly assigned to one of the two equal-sized groups. Group one would play experimental conditions 1, 3 and 5, in which no stimuli would be given. Group two would play experimental conditions 2, 4 and 6, in which the stimuli were included. Each assessor would not play against an actor more than once.

*Experimental condition 1*

Both the assessor and the actor were asked to complete the first part within five minutes. They were told that it would not be possible to complete the Sudoku game and what they should do was to learn the rules by discussing them with each other. After five minutes, they were separated and were unable to see each other. They were then presented with the second part that requested them to answer the question concerning their judgment of the other party. After the question was answered and the questionnaire was collected, they were required to complete the easier Sudoku game. Neither the answer of each party nor the result of the latter game was disclosed to the other party.

*Experimental condition 2*

The steps were the same as those in experimental condition 1 except that the stimulus was added. In the stimulus part the actor had been instructed in the briefing to fill in two boxes only in order to give an impression of below-average ability. The players were allowed to see how the other party performed under this stimulus part before they continued to answer the judgment question.

*Experimental condition 3*

Both the assessor and the actor were asked to complete the first part in about ten minutes. They were told that they needed to share at least ten percent with another party. After five minutes, they were asked if they needed more time to reach agreement; if yes, they were given another five minutes. The actor had been instructed in the briefing to agree with the other party’s
suggestion, and if the other party did not make any suggestion, the actor would propose thirty percent. After the first part, they were separated and were unable to see each other. They were then requested to complete the second part and were informed that their answers would not be shared with their opponents. They were also assured that the identity of the one who finally won the lucky draw would not be revealed.

**Experimental condition 4**

The steps were the same as those in experimental condition 3 except the inclusion of ten PDGs. In this stimulus part, they were told that they could get an extra bonus if they cooperated nine times out of ten, and the bonus amount would be doubled if, for at least one game, one of them did not cooperate but the other party did. The amount of bonus, however, was not stated. In the briefing, the actor had been instructed to cooperate until the tenth game in which the actor was instructed to choose not to cooperate. For the first nine games, the actor had been instructed to cooperate unless the opponent chose the opposite. When the opponent did not cooperate, for example, in the second PDG, the actor then had to choose not to cooperate in the third PDG until the opponent chose to cooperate again. As a result, no one was able to get the double-bonus.

**Experimental condition 5**

Both the assessor and the actor were asked to complete the first part in about ten minutes. They were each given an amount of Kr.40 as initial endowment for this game. After five minutes, they were asked if they needed more time to reach agreement; if yes, they were given another five minutes. In the briefing, the actor had been instructed to tell the other party that ten percent of the Kr.500,000 would be given to a charity. After the first part, they were separated and were unable to see each other. They were then requested to complete the second part and they were informed that their answers would not be shared with their opponents.

**Experimental condition 6**
The steps were the same as those in experimental condition 5 except that the stimulus of the ten-time PDGs was added. All the procedures for the ten-time PDGs were the same as those in experimental condition 4.

**Results**

Each of the twenty-four assessors played three games and a total of seventy two observations were obtained. However, four of them were invalid as the actors did not follow the instructions given in two games and two assessors were accidentally assigned to play the same actors twice. Therefore, a total of sixty-eight valid observations were included in the analysis.

*Table 1 about here*

**Hypotheses**

We first investigated the correlation between assessors’ perceptions and actors’ EI. In Table 1, we discerned in the complete-stranger condition (experimental condition 1) that assessors’ perception of actors’ ability did not correlate significantly with actors’ EI. Therefore, Hypothesis 1a was not supported. In order to overcome the small sample size, we also carried out a non-parametric test. We first divided the actors into two equal-sized groups: the high-EI and the low-EI group. The high-EI group consisted of actors who scored more than 100 marks; whereas low EI group consisted of actors who scored lower than 100 marks. According to the MSCEIT manual, the mean score is 100 marks (Mayer et al., 2002). Building on this group division, a Mann-Whitney U test did not reveal any significant difference in the assessors’ perception of actors’ ability between the high-EI ($Md=3.0$, $n=12$) and the low-EI group ($Md=4.5$, $n=12$), $U=15.5$, $z=-0.88$, $p=0.93$, $r=0.02$ under this condition. This again indicated that Hypothesis 1a was not supported.

Focusing on Hypothesis 1b, an independent-sample t-test showed a significant difference in the assessors’ perception of actors’ ability between complete-stranger (experimental condition 1)
Influences of Emotional Intelligence on

$(M=4.08, SD=2.94)$ and additional-information condition (experimental condition 2) $(M=1.60, SD=1.58)$, $t(17)=2.52$, $p=0.022$ (two-tailed). The magnitude of the differences in the means $(Mean\ Difference=2.48, 95\%\ CI: 1.1$ to $6.0)$ was also large $(Eta\ Squared = 0.24)$. The presence of more information through the additional Sudoku game significantly lowered the assessors’ ratings of the perception of actors’ ability. Thus, Hypothesis 1b was supported. We also carried out a non-parametric test in order to overcome the impact of a small sample size. The Mann-Whitney U test also showed a significant difference in the assessors’ perception of actors’ ability under the complete-stranger $(Md=3.0, n=22)$ and the additional-information condition $(Md=1.5, n=22)$, $U=28.0$, $z=-2.17$, $p=0.03$, $r=0.46$. This provides additional evidence that Hypothesis 1b was supported.

Concerning the actors’ integrity, we found that assessors’ perception did not correlate significantly with actors’ EI under the complete-stranger condition (experimental condition 3). Hypothesis 2a was thus not supported. In line, the Mann-Whitney U test did not indicate any significant difference in the assessors’ perception of actors’ integrity between the high-EI $(Md=8.0, n=11)$ and the low-EI group $(Md=8.5, n=11)$, $U=12.0$, $z=-0.39$, $p=0.70$, $r=1.17$ under this condition. On the other hand, we did receive support for Hypothesis 2b. An independent-sample t-test revealed a significant difference in assessors’ perception of actors’ integrity between the complete-stranger (experimental condition 3) $(M=7.64, SD=2.46)$ and the additional-information condition (experimental condition 4) $(M=4.09, SD=2.95)$, $t(20)=3.06$, $p=0.006$ (two-tailed). Again, the magnitude of the differences in the means $(Mean\ Difference=3.55, 95\%\ CI: 1.1$ to $6.0)$ was large $(Eta\ Squared =0.32)$. Moreover, the Mann-Whitney U test also revealed a significant difference in assessors’ perception of actors’ integrity between the complete-stranger $(Md=8.0, n=22)$ and the additional-information condition $(Md=3.0, n=22)$, $U=23.0$, $z=-2.49$, $p=0.01$, $r=0.53$. 


Influences of Emotional Intelligence on Relating to the actors’ benevolence, no significant correlation was found between assessors’ perception and actors’ EI under the complete-stranger condition (experimental condition 5). In support of this finding, the Mann-Whitney U test did not indicate any significant difference in assessors’ perception of actors’ benevolence between the high-EI ($Md=4.0, n=12$) and the low-EI group ($Md=7.0, n=12$), $U=12.0$, $z=-1.12$, $p=0.26$, $r=0.32$. Therefore, Hypothesis 3a was not supported. When looking at Hypothesis 3b, the difference in the assessors’ perception of actors’ benevolence between the complete-stranger (experimental condition 5) ($M=5.75$, $SD=2.49$) and the additional-information condition (experimental condition 6) ($M=4.33$, $SD=3.39$) was insignificant, $t(22)=1.17$, $p=0.256$. The Mann-Whitney U test also agreed to the fact that there was no significant difference in assessors’ perception of actors’ benevolence between the complete-stranger ($Md=6.5, n=24$) and the additional-information condition ($Md=4.0, n=24$), $U=55.0$, $z=-1.00$, $p=0.32$, $r=0.20$. Consequently, Hypothesis 3b was not supported.

Additional Findings

We continued to investigate whether the perception scores were independent of EI when additional information was available. By looking at their correlations under the additional-information conditions (experimental conditions 2, 4 and 6) (Table 1), we discovered two unexpected results. First, there was a moderately significant relationship between actors’ ability to understand emotions and assessors’ perception of ability rating under the additional-information condition, although the relationship between overall EI and the rating remained insignificant. Second, actors’ EI was found to be significantly correlated with assessors’ perception of actors’ benevolence under the additional-information condition. The Mann-Whitney U test also indicated significant difference in the assessors’ perception of actors’ benevolence between the high-EI ($Md=2.0, n=12$) and the low-EI group ($Md=8.0, n=12$), $U=5.0$, $z=-2.05$, $p=0.04$, $r=.60$ under the additional-information condition (experimental condition 6).
Influences of Emotional Intelligence on

This was an explorative result because of not only the significance involved but also the negative relationship shown. It meant that high EI individuals scored significantly lower than did low EI individuals in terms of benevolence-based trustworthiness when some negative information about those individuals was disclosed to the other party.

Table 2 about here

We then conducted a regression analysis to see how well actors’ EI scores predicted their benevolence-based trustworthiness at the presence of negative information (Table 2). The model showed that the EI scores significantly predicted the benevolence-based trust score, $F=12.52, p=0.005$. The adjusted R squared value was .51, which indicated that 51% of the variance in benevolence-based trust was explained by the model. It also showed that the coefficient of EI was significant ($p=0.005$). Assumptions of linearity, normally distributed errors, and uncorrelated errors were checked and met.

Discussion

The main purpose of this paper was to investigate a set of hypotheses aimed at clarifying the relationship between EI and perceptions of trustworthiness. It was assumed that additional information would matter more than affects would when people form perceptions at the later stage of a relationship. First, pertaining to the perception of ability, our results showed that overall EI scores did not have any significant impact on the perception rating under both experimental conditions. Contrary to our prediction as described in hypothesis 1a, we found that high EI individuals did not have an advantage compared with low EI individuals in bestowing a competent image on another party. On the other hand, we discovered that additional information significantly affected the perception rating of ability. We therefore concluded that additional information did play a vital role for a person to reach a perception judgment. In fact the above results conformed to the claim that perception of ability is cognitive (Clark & Payne,
1997; Greenberg et al., 2007), which means that the perception is formed based on trustworthy or untrustworthy acts, rather than one’s affective state.

Second, pertaining to the perception of integrity, we discovered similar results. Again, EI did not have any significant impact on the perception under both experimental conditions. However, additional information again did significantly affect the perception rating. These findings also supported the claim that perception of integrity is also cognitive in nature (Clark & Payne, 1997; Greenberg et al., 2007). However, there existed some subtle differences in the impact of additional information between perceptions of ability and of integrity. The mean perception rating of integrity under a complete-stranger condition represented a moderate level of trust. The mean perception rating was then reduced to a modest level of distrust, after the inclusion of ten PDGs. The drop was not only significant but also shifted from the trusting region to the distrusting region. This result was important in the sense that the PDGs themselves had little to do with the promises in the beginning of the experiment since the two parties were given no opportunity to discuss how to play the PDGs. It agreed with the claim that initial trust is fragile (McKnight & Chervany, 2006). The results might also be due to the fact that the ten PDGs arouse the risk awareness of the assessors. Oliver & Lunt (2004) have discovered that risk awareness reduces the level of trust. Overall, it implied that one may even speculate another party’s integrity through the latter’s unrelated actions.

Third, pertaining to the perception of benevolence, we got a somewhat different picture. Although EI did not have significant impact on the perception when another party appeared to be a complete stranger, it did have a significant impact on the perception when more information was disclosed. Another difference came from the comparison of means. Unlike the perceptions of ability and integrity, here we found no significant difference between the means under two conditions. Because EI did have an impact on the perception of benevolence, it seemed to
support the claim that benevolence is affective in nature (Clark & Payne, 1997; Greenberg et al., 2007). This means that the perception is affected by feelings of care and concern rather than of hard evidence (Johnson & Grayson, 2005). The results also concurred that affective trust tended to be stable (Scott III, 1980).

Our result concerning the perception of benevolence also indicated that there was a significant but negative correlation between EI and perception of benevolence due to the fact that some negative information was given. A negative correlation was found not only between the perception and overall EI, but also between the perception and all subcategories of EI, even though only one subcategory – ability to manage emotions - was moderately significant (Table 1). This result seemed to contradict previous research results which have shown that supervisors rate high-EI subordinates as more altruistic than low-EI subordinates (Carmeli & Josman, 2006).

The difference, we argue, may lie in one of our experimental conditions, in which we deliberately added a somewhat selfish act. We try to reconcile the difference by making the following proposition: EI by itself is neutral and does not strengthen or diminish the perception of benevolence; rather it simply serves as an “amplifier” which amplifies later signals released from an individual. In other words, an individual can distinguish between high-EI and low-EI individuals but the distinction will affect one’s perception only after more information is available. This seems to be supported by other research which has discovered that a person’s charismatic behavior does not earn him or her trust from others when he or she is a stranger (Kirkpatrick & Locke, 1996). On the one hand, when additional information signals benevolence, a trustor may perceive high-EI individuals as more benevolent than low-EI individuals. On the other hand, when additional signals do not indicate benevolence, a trustor may regard the high-EI individual as Machiavellian, which means the latter party is exploitative, and deceitful (Hunter, Gerbing, & Boster, 1982). Previous findings have revealed that a negative
Influences of Emotional Intelligence on relationship exists between trustworthiness and Machiavellianism (Butler, 1986; Butler, 1991). Moreover, those who score high in Machiavellianism are more likely to defect in a bargaining game (Gunnthorsdottir, McCabe, & Smith, 2002).

There was also a moderately significant relationship found between perception of ability ratings and ability to understand emotions when additional negative information is present. This seemed logical in a sense that those who had better understanding of others’ emotions were regarded as having better ability than those who had not.

We summarized our findings as follows. Initially, EI does not contribute to any of the perceptions of trustworthiness. As more information is revealed, EI is likely to have an impact on the perception of benevolence but not on the perceptions of ability and integrity. The impact could be negative, provided that the nature of the information is negative. On the other hand, information alone has a significant impact on the perceptions of ability and integrity, but not on the perception of benevolence.

**Practical Implications**

Our results have a number of practical implications. First, one of our results showed that a person’s EI has minimal impact on all the three perceptions of trustworthiness when he or she is a complete stranger to another party. It implies that substance is more important than style (Kirkpatrick & Locke, 1996) even at the early stage of a relationship. In other words, only concrete evidence of trustworthiness can weaken others’ initial suspicions and entice their trust. For example, a subordinate will trust their supervisors’ abilities only when they show adequate technical knowledge rather than merely demonstrate confidence or enthusiasm. By the same token, one believes in others’ integrity only when incidents of word-action consistency are found. Even in the case of benevolence, the showing of empathy and concern may impress the trustees but will not immediately enhance others’ perceptions. Therefore, if a team wishes to establish a
Influences of Emotional Intelligence on trust relationship with newcomers, showing track records of trustworthy acts might be more effective than mere demonstration of warm and caring atmosphere.

Second, our results showed that people under uncertainty were highly sensitive to additional information in the case of ability or integrity based trusts, even when such information was not relevant to the judgment. It implies that it is better for a company to adopt a transparent policy than a black-box policy when its aim is to encourage trust. For example, when a company faces a redundancy decision, sometimes management teams might wish to keep the decision process in the dark or even denial until the very last minute in an attempt to maintain morale. However, our result suggests that staff members who have not had well-established trust with the management would try to surmise the authenticity of management’s words from clues such as rumors and in many cases they may overreact to these clues. Eventually, good staff members whom the management wishes to retain may leave well before the announcement is made.

Third, our result also revealed that EI may, on some occasions, be detrimental in creating a trust relationship. It implies that management should not over-emphasize the importance of staff’s EI, especially in relation to the establishment of trust. A high-EI manager, for example, might be more skillful than a low-EI manager in displaying empathy towards his or her staff. Nonetheless, when such empathy is not matched with actions and behaviors, he or she will be perceived as less benevolent than a low-EI manager who does the same. Of course, this does not imply that it is better for a company to employ a low-EI manager. It simply implies that when one considers trust-building, one should first emphasize an individual’s creditability of ability, integrity and benevolence rather than an individual’s EI.

Limitations

There were some limitations in our findings. First, caution must be taken in generalizing the results. Not all kinds of aspects within each perception have been taken into account in our
Influences of Emotional Intelligence on experiment. In fact we took into account only one aspect for each perception. For example, in the perception of ability we considered ability that only involved little emotional content. For those abilities that comprise considerable emotional content, the effect of EI on the perception of ability might be more significant than our result showed. As the perception of ability is domain specific (Mayer et al., 1995), it is simply not possible to test all kinds of abilities in a single experiment. Similarly for the perception of integrity we adopted material related only to honoring one’s promise but not to all principles that a trustor found acceptable. By the same token, the perception of benevolence was only related to whether a person would take advantage of another parties’ misfortune.

The second limitation concerns the face-to-face interaction we adopted in our experiment. Face-to-face interaction, some argue, offers less control than, for example, computer-mediated interaction does. Although the latter can offer tight control by providing the same conditions across all assessors, it also severely limits an actor’s choices to respond to different assessors with different treatments which he or she thinks best suit the individual assessor. The ability to make an appropriate choice of treatment is one of the key differences between a high-EI individual and a low-EI individual. High-EI individuals are regarded as better than low-EI individuals in affecting another party’s formation of perception through subtle demonstration of one’s own facial expression, tone or gestures. In order to keep this ability intact, we nonetheless chose face-to-face interaction. In fact, when Yamagishi (2001) conducted an experiment by asking students to judge whether the other party would cooperate in a prisoners’ dilemma game, he allowed students to have a thirty-minute face-to-face discussion session in advance of the game.

The third limitation relates to the performances of actors and assessors. As each actor played ten to twelve games and each assessor played three games, it might be argued that actors’
Influences of Emotional Intelligence on performance could be affected by doing mundane tasks and assessors’ performance could be influenced by learning effects. While we could not rule out such influences, we took several actions to minimize the impacts. First, each actor played only three to four games - normally different games - in a row with a break of ten to fifteen minutes inserted between different assessors. After three or four games the actor would play against other assessors which took place an hour to a few days later. This arrangement was intended to minimize the boredom felt by actors. Second, each assessor played three games but not everyone played in the same sequence. The order was counterbalanced. By manipulating the sequence of playing, we averaged out the learning effects upon the results.

Future Research

First, our result showed that EI might serve as an “amplifier” of information pertaining to benevolence. This needs to be investigated further as our experiment took into account information of negative nature only. Second, we found that EI offered negligible impact on perceptions of trustworthiness under uncertainty. However, it is still unclear whether such an impact remains trivial across the whole trust-building process. For example, Jones & George (1998) have claimed that emotion serves as a signal that incites a reappraisal of a trust relationship and an emotional outburst will be likely to dissolve a trust bond. High-EI individuals might be better than low-EI individuals in consciously monitoring emotional signals so that the reach of the outburst point could be avoided. Therefore, future research that looks at the impact of EI on trust-building process at different stages is recommended.

Conclusions

We hypothesized that EI would be positively related to each of the perceptions of trust: ability, integrity and benevolence. Moreover, we hypothesized that all the perceptions would be significantly affected when additional information is revealed. However, our results showed
that there was no significant relationship between an individual’s EI and his or her own
trustworthiness in terms of ability, integrity and benevolence at the very early stage. On the
contrary, we did find people to be highly sensitive to additional clues about an individual’s
trustworthiness in terms of ability and integrity, but not of benevolence. Additionally, our results
pointed out that EI might even be counterproductive in benevolence-based trust if inconsistency
between words and actions was present.
References


### Table 1

*Correlations between Perception Scores and Emotional Intelligence Scores*

<table>
<thead>
<tr>
<th>Experimental conditions</th>
<th>Actors’ overall emotional intelligence</th>
<th>Actors’ ability to recognize emotions</th>
<th>Actors’ ability to use emotions</th>
<th>Actors’ ability to understand emotions</th>
<th>Actors’ ability to manage emotions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Assessors’ perception of actors’ ability without additional information</td>
<td>-0.008</td>
<td>0.074</td>
<td>0.229</td>
<td>-0.284</td>
<td>-0.064</td>
</tr>
<tr>
<td>2. Assessors’ perception of actors’ ability with additional information</td>
<td>0.451</td>
<td>0.167</td>
<td>-0.120</td>
<td>0.730&lt;sup&gt;b&lt;/sup&gt;</td>
<td>0.252</td>
</tr>
<tr>
<td>3. Assessors’ perception of actors’ integrity without additional information</td>
<td>0.341</td>
<td>0.510</td>
<td>0.378</td>
<td>0.098</td>
<td>0.044</td>
</tr>
<tr>
<td>4. Assessors’ perception of actors’ integrity with additional information</td>
<td>0.275</td>
<td>0.372</td>
<td>0.136</td>
<td>0.185</td>
<td>-0.114</td>
</tr>
<tr>
<td>5. Assessors’ perception of actors’ benevolence without additional information</td>
<td>-0.254</td>
<td>-0.362</td>
<td>0.321</td>
<td>-0.437</td>
<td>0.009</td>
</tr>
<tr>
<td>6. Assessors’ perception of actors’ benevolence with additional information</td>
<td>-0.746&lt;sup&gt;a&lt;/sup&gt;</td>
<td>-0.337</td>
<td>-0.597&lt;sup&gt;b&lt;/sup&gt;</td>
<td>-0.442</td>
<td>-0.245</td>
</tr>
</tbody>
</table>

<sup>a</sup> Correlation is significant at the 0.01 level (2-tailed).

<sup>b</sup> Correlation is significant at the 0.05 level (2-tailed).
Table 2

*Emotional Intelligence as a Predictor of Benevolence Perception under Additional Negative Information*

<table>
<thead>
<tr>
<th>Regression Model</th>
<th>Adjusted R²</th>
<th>F-value</th>
<th>DF</th>
<th>Beta</th>
<th>t-value</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dependent variable: perception score of benevolence</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Emotional intelligence</td>
<td>0.512</td>
<td>12.524a</td>
<td>11</td>
<td>0.746</td>
<td>-3.539</td>
<td>0.005</td>
</tr>
</tbody>
</table>

*a Significant at p < 0.01 level.