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Social Awareness and Leader Influence: A Proposed Model and Training Intervention

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A leader's ability to influence others is likely related to the leader's level of social awareness (knowing how one is perceived by others in that environment.) Based on perceptions of the social environment, a leader must also alter behaviors as needed to more effectively relate to others, a process which has been termed "interpersonal adaptability". Interpersonal adaptability is central to the role of the leader who must use influence and persuasion to successfully accomplish the mission through the work of subordinates. The objectives of this research are to develop a model of social influence, to propose training, and to pilot test the concepts. To meet these objectives, we first provide an overview of the relationship between social awareness and influence. Second, we describe a model of social awareness and influence. Third, we describe how these concepts link to the leader competencies defined in FM 6-22. Next, we discuss implications of this research for training leaders to enhance their social awareness and influence skills, and we present the concepts that were developed for training these skills. Finally, we describe how these concepts were pilot tested, and we present the results and our conclusions from the pilot.

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SOCIAL AWARENESS AND LEADER INFLUENCE: A PROPOSED MODEL AND TRAINING INTERVENTION

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SOCIAL AWARENESS AND LEADER INFLUENCE: A PROPOSED MODEL AND TRAINING INTERVENTION

EXECUTIVE SUMMARY

Research Requirement:

The Army defines leadership as "influencing people by providing purpose, direction, and motivation while operating to accomplish the mission and improving the organization" (p. 1-2, Department of the Army, 2006). Thus, the concepts of leadership and influence are inextricably linked via the Army's definition of leadership. To complete their missions successfully, Army leaders must negotiate with and persuade a variety of individuals and groups, such as superior officers, peers, host nation personnel, allied forces, and joint forces, among others. Moreover, leadership influence is a key concept that is interwoven throughout the Core Leader Competencies defined in the newly revised Army Leadership Manual (FM 6-22).

Although the need for influence skills and interpersonal adaptability in the Army environment has been well established (Department of the Army, 2001; Horey, Fallesen, Morath, Cronin, Cassella, Franks, & Smith, 2004; Wong, Gerrars, Kidd, Pricone, & Swengros, 2003), little formal training exists to help new Army leaders enhance these skills. To address this gap, the Army Research Institute's Leader Development Research Unit (ARI-LDRU) has recently initiated work on the Army Technology Objective (ATO) titled Accelerating Leader Development. Specifically, ARI-LDRU has determined that one component of this research should examine the role of in-the-moment social awareness on leader influence; that is, how leaders become aware of the effectiveness of their influence attempts while they are in the process of influencing others and how they subsequently modify their behavior to be more effective. To conduct this research, ARI-LDRU has contracted with Personnel Decisions Research Institutes (PDRI), Inc. and Caliber, an ICF International Company to (1) develop and document a model of social awareness and influence based on an analysis of relevant research, (2) propose training concepts to address the linkages in the model, and (3) pilot-test the concepts.

Procedure:

Based on a review of relevant research, a model of social awareness and influence was developed and the factors hypothesized to impact the model were identified. The results of an expert rating task revealed that experience influencing others, knowledge of non-verbal behavior and cultural norms, communication/persuasion skills, political skills, social intelligence, metacognition, and self-awareness were the factors that were most likely to have a high impact on the social awareness and influence process and that could potentially be improved through training. Consequently several training concepts were identified: knowledge of the social awareness and influence process, knowledge of/skill in reading verbal and non-verbal cues of others, and knowledge of/skill in using influence tactics. Using a combination of commercially available tools and customized content, we developed and pilot tested a six-hour social awareness and influence training program with 72 NCOs and Company-grade officers.

The pilot test served a dual purpose: (1) to test the various training concepts to determine their suitability for ongoing use and (2) to make some initial determinations about whether social awareness and influence skills could be improved through training. Evaluation data were collected at two levels to assess the effectiveness of the training: participant reactions (level 1) and acquisition of new knowledge and skills (level 2). The level 1 evaluation was conducted using a survey administered at the end of each training session. A pre/post test design was used to conduct the level 2 evaluation – participants were assessed via a test of nonverbal sensitivity and a role-play exercise both before and after the training on their ability to read verbal and non-verbal cues and on adjusting their own behavior to more effectively influence others.

Findings:

Results of the participant reactions questionnaire indicated that the training program was well received by the target audience. Participants indicated that the role-plays and instruction on influence tactics were the most useful components of the course. Results of the pre-post tests indicated that training was successful in helping participants improve their skills in the following areas:

- Clearly communicating an influence goal
- Adjusting behavior in response to a target's reactions
- Influencing others for compliance and commitment.

The results of this research provide three significant contributions. First, based on a review of the literature, we developed a viable model of in-the-moment social awareness and influence. Second, this research provides support for the notion that social awareness and influence are skills that can be enhanced through training. A third contribution of this research is the development of customized behavioral observation measures to evaluate role-play performance. The role-play methodology was useful both as a training tool and as an evaluation tool.

Utilization and Dissemination of Findings:

The initial results from this research suggest future research would provide several benefits to the Army. Based on the initial findings of the pilot, it appears that a training program could be developed which would improve participant social awareness and influence skills, which are key to a leader's success. In addition, the current findings warrant a more complete test of the model, including potential moderators, in order to identify the specific aspects of the social awareness and influence process that may be easier to train than others. In addition to the need for further research, we provide several short and long term recommendations for enhancing the training. Short term recommendations include more in-depth role-plays, revisions to the observational measures, and a more extensive validation effort. Long-term enhancements to the program might include more extensive use of video in the training, extended training length, and modifications to make the course suitable for other audiences.

Social Awareness and Leader Influence: A Proposed Model and Training Intervention

Background

The Army defines leadership as "influencing people by providing purpose, direction, and motivation while operating to accomplish the mission and improving the organization" (p. 1-2, Department of the Army, 2006). Thus, for Army leaders the concepts of leadership and influence are inextricably linked. The increase in operational tempo in the post-9/11 environment and the subsequent Global War on Terrorism has further highlighted the importance of influence skills for Army leaders. To complete their missions successfully, Army leaders must negotiate with and persuade a variety of individuals and groups, such as superior officers, peers, host nation personnel, allied forces, and joint forces, among others. Moreover, Soldier attitudes and behavior have changed, reflecting changes in the culture of younger Americans. Young people today tend to be independent and are more likely to desire more information and discussion than their predecessors (Fallesen, Keller-Glaze, Aude, Mitchell, Horey, Gramlich, & Morath, 2005; Morath, Light, Gompper, Harris, & Zazanis, 2001). To be effective with Soldiers who are recruited from this population requires leadership through motivation and persuasion, skills that have been recognized in the leadership competencies and metacompetencies defined in the Army Field Manual on Leadership (FM 6-22; Department of the Army, 2006).

A leader's ability to influence others is likely related to his or her level of social awareness. Social awareness is the process of accurately perceiving the social environment, including knowing how one is perceived by others in that environment. Based on his or her perception of the social environment, a leader must also alter his or her own behavior as needed to more effectively relate to others, a process which has been termed "interpersonal adaptability" (Pulakos, Arad, Donovan, & Plamondon, 2000). Interpersonal adaptability is central to the role of the leader who must use influence and persuasion to successfully accomplish the mission through the work of his or her subordinates. For example, Horey, Morath, Keller-Glaze, and Fallesen (2005), found that Army leaders employ a variety of actions and tactics when attempting to influence those within and outside the chain of command. However, they also found that influence attempts by Army leaders were not always effective and that leaders sometimes employ tactics that do not appropriately match the situation.

To effectively adjust one's behaviors when interacting with others, we propose that one must have an awareness of oneself, other parties in the interaction, and situational factors. That is, before one can change the way he or she interacts with others, he or she must be aware of (1) his or her own goals and values, (2) how he or she is perceived by others in the social interaction, (3) what the other parties expect and want from the interaction and from him or her, and (4) what interactions are dictated by the social setting in which the interactions are occurring. Zaccaro (2001) discusses these concepts in terms of social perceptiveness, or a capacity to recognize the needs, goals, and demands of others. Therefore, individuals who are able to accurately perceive other's reactions and correctly analyze and evaluate their intent will be able to modify their own behavior to be more effective.

Although the need for these skills in the Army environment has been well established (Department of the Army, 2001; Horey, Fallesen, Morath, Cronin, Cassella, Franks, & Smith,

2004; Wong, Gerrars, Kidd, Pricone, & Swengros, 2003), little formal training exists to help new Army leaders enhance these skills. To address this gap, the Leader Development Research Unit of the Army Research Institute (ARI-LDRU) has recently initiated work on an Army Technology Objective (ATO) titled Accelerating Leader Development. Specifically, ARI-LDRU has determined that one component of this research should examine how leaders become aware of the effectiveness of their influence attempts while they are in the process of attempting to influence others (i.e., "in-the-moment awareness"), and how they subsequently modify their behavior to influence the target more effectively. To conduct this research, ARI-LDRU has requested contractor support from Personnel Decisions Research Institutes (PDRI) and Caliber, an ICF International Company. As described in the original statement of work, the objectives of this research "are to develop and document a model based upon analysis of relevant research, to propose training concepts based upon feedback regarding their attempts to influence others, and to pilot test the concepts."

This report describes the research conducted to meet these objectives. First, we provide an overview of the concept of social awareness and its relation to influence. Second, we present and describe a model of social awareness and influence that demonstrates the linkages between self-awareness, social awareness, and influence, and we describe factors that may affect the relationships in the model. In addition, we describe how these concepts link to the leader competencies and metacompetencies defined in FM 6-22. Next, we discuss implications of this research for training leaders to enhance their social awareness and influence skills, and we present the concepts that were developed for training these skills. Finally, we describe how these concepts were pilot tested, and we present the results and our conclusions from the pilot.

Social Awareness and Influence

Social awareness has been defined as "a contextualized cognizance either of oneself or of another person" (Sheldon, 1996; p. 621). Sheldon and Johnson (1993) and Sheldon (1996) have identified eight forms of social awareness in a two-by-two-by-two matrix. According to this matrix, one could attempt to understand one's own experience (inner perceptions and evaluation) or appearance (how one looks outwardly) from the perspective of the self or another. Likewise, one could attempt to understand another's experience or appearance from the perspective of the self or another individual.

Similarly, we define social awareness as the process by which an individual accurately perceives, analyzes, and evaluates social stimuli. Social stimuli include other people and their interpretations of and reactions to what one does and says in the context of the environment and culture. By accurately we mean that both parties have a shared view of both the individual's behavior in the interaction and the other person's reaction to this behavior. Thus, understanding how one appears to others is a key component of social awareness.

In the context of an influence attempt, the social awareness process described above would occur during the interaction between the ***influencer*** and the ***target*** of the influence. That is, the focus of the present research is social awareness as an in-the-moment process. However, the larger context of influence consists of the full range of activities that the influencer engages in before the interaction and the outcomes that follow from the interaction – both in the short and

long term. Specifically, the psychological processes involved in a deliberate influence attempt may include the following:

♦ Prior to the interaction
- The influence goal (i.e., what the influencer wishes to achieve) is defined either explicitly or implicitly (e.g., the influencer requires a favor from the target).
- The influencer may scan the current environment to identify important aspects to consider when planning how he or she will influence the target (e.g., the difficulty of the request, the prior relationship that the influencer has with the target, the timeframe).
- The influencer may plan an overall approach or strategy for the influence attempt (e.g., one strategy might be to rely on logical arguments to convince the target that it is important to provide assistance).

♦ During the interaction
- The influencer attempts to accomplish his or her goal by using one or more influence tactics (e.g., the influencer presents a variety of facts to support the legitimacy of the request).
- The target perceives and interprets these influence tactics and provides a verbal and/or nonverbal response. This interpretation may be affected by a variety of factors such as attribution bias, culture, norms, and prior experiences with the influencer. The target's response may indicate compliance or resistance.
- The influencer perceives and interprets the target's response and evaluates it against the initial influence goal. This interpretation may be affected by a variety of factors such as attribution bias, culture, norms, and prior experiences with the target. If the influencer determines that the influence goal has been met, the interaction may conclude. If the influencer determines that the goal has not been met, he or she may try different influence tactics in an attempt to be more effective. Thus, the process of perceiving, interpreting, and responding begins anew.

♦ After the interaction
- The interaction may conclude with either compliance or resistance from the target in the short term. Long-term outcomes may include commitment (the target internalizes the influencer's request and supports it fully) or lack thereof. For example, an influencer who chooses to use coercion as an influence tactic may gain compliance in the short-term but at the cost of credibility and respect over the long-term, thereby potentially reducing the influencer's ability to work effectively with the target in the future.

This process is depicted graphically in Figure 1. This model and the factors hypothesized to moderate the relationships in the model are discussed in turn in the sections that follow.

As noted in the introduction of this paper, the concepts of influence and leadership are inextricably linked. To be effective, leaders must successfully influence others in a variety of situations, including downward influence, peer-to-peer influence, upward influence, and influence outside one's chain of command. As such, we will anchor our discussion of the social awareness and influence process in the context of leadership interactions with a wide range of other individuals.

Recently, the Army has updated its model of the competencies required for effective leadership. These new competencies are presented in FM 6-22. The linkages between the concepts presented in the social awareness and influence model and the leadership competencies and metacompetencies defined in FM 6-22 are presented in Table 1. Examples of these linkages are provided at the intersection of the study concepts and the competencies. While many of the competencies described in FM 6-22 are related to the social awareness and influence process (e.g., a leader who displays character by modeling Army values consistently will be more likely to be able to successfully influence his or her subordinates through increased credibility and trust), only the most direct linkages are shown in the table. As demonstrated in the table, there is substantial overlap between the concepts defined in the social awareness and influence model and the competencies required for effective Army leaders. Therefore, training designed to enhance leader performance related to social awareness and influence may also have a positive impact on the general competencies required for leadership success.

Figure 1. A Model of Social Awareness and Influence

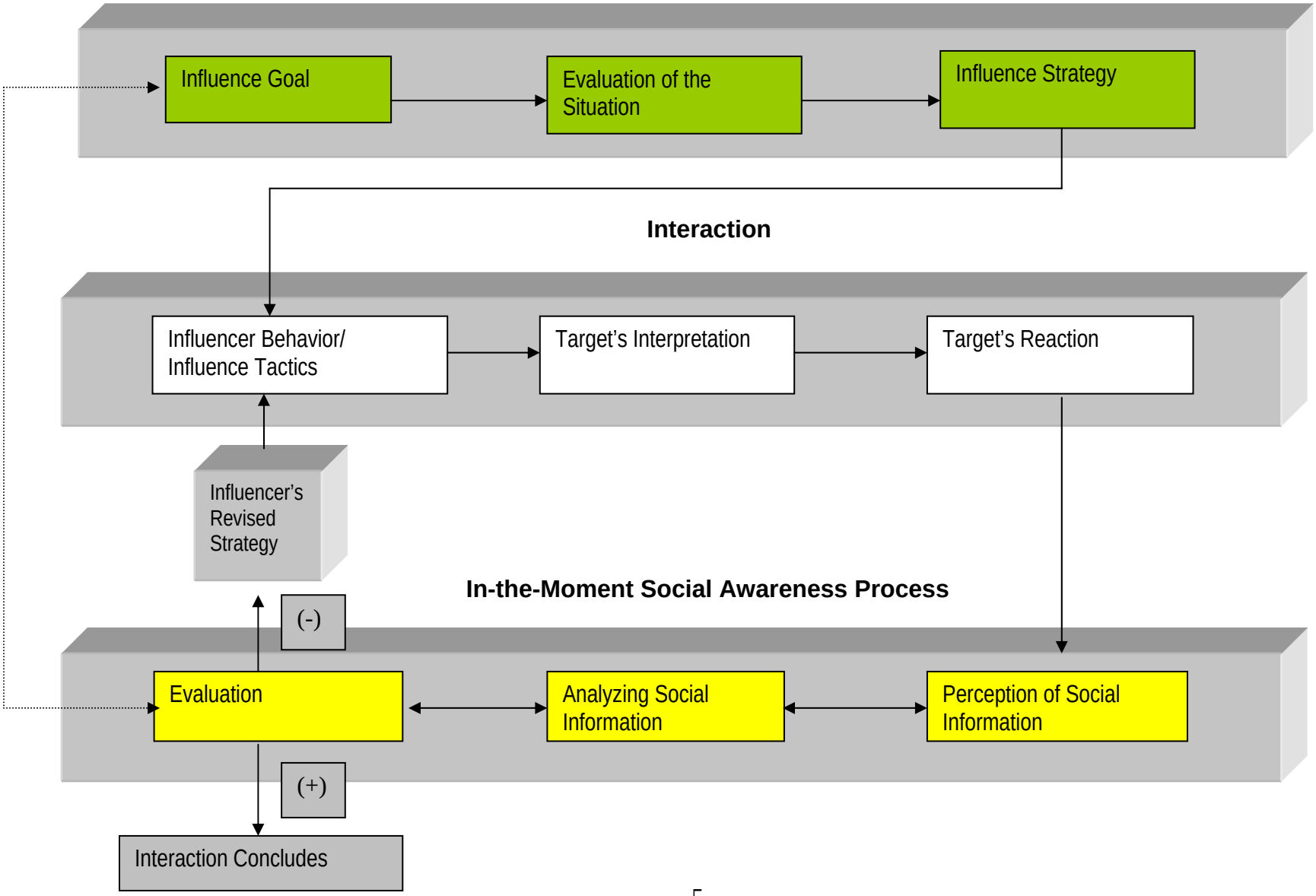


Table 1. Linkages between Study Concepts and Army Leadership Competencies

FM 6-22 Competencies	Study Concepts			
	Pre-Interaction (Influence Goal, Evaluation of the Situation, Influence Strategy)	**Influencer Behavior/ Influence Tactics**	**Perception, Analysis, and Evaluation of Social Information**	**Influencer's Revised Strategy (Adjusting One's Own Behavior to be More Effective)**
Attributes				
A Leader of Character (Identity)			Empathy: Having a propensity to experience something from another person's point of view.	
A Leader With Intellectual Capacity	Domain Knowledge: cultural and geopolitical knowledge is understanding of cultural, geographic, and political differences and sensitivities		Judgment: having a capacity to assess situations or circumstances shrewdly and to draw sound conclusions Interpersonal Tact: having a capacity to understand the interactions with others Domain Knowledge: cultural knowledge	Agility: a tendency to anticipate or to adapt to uncertain or changing situations; to think through second- and third-order effects when current decisions or actions are not producing the desired effects
Core Leader Competencies				
Leads				

FM 6-22 Competencies	Study Concepts			
	Pre-Interaction (Influence Goal, Evaluation of the Situation, Influence Strategy)	**Influencer Behavior/ Influence Tactics**	**Perception, Analysis, and Evaluation of Social Information**	**Influencer's Revised Strategy (Adjusting One's Own Behavior to be More Effective)**
Leads Others		Uses appropriate influence techniques to energize others Conveys the significance of the work		
Extends Influence Beyond Chain Of Command	Understands sphere of influence, means of influence, and limits of influence	Builds trust		
Leads By Example			Seeks and is open to diverse ideas and points of view	
Communicates		Employs engaging communication techniques Is sensitive to cultural factors in communication	Listens actively Is sensitive to cultural factors in communication	
Develops				
Creates a Positive Organizational Climate	Sets and maintains high expectations for individuals and teams	Encourages open and candid communications		
Prepares Self	Maintains relevant cultural awareness	Maintains relevant cultural awareness	Maintains relevant cultural awareness	Maintains self awareness
Achieves				

FM 6-22 Competencies	Study Concepts			
	Pre-Interaction (Influence Goal, Evaluation of the Situation, Influence Strategy)	**Influencer Behavior/ Influence Tactics**	**Perception, Analysis, and Evaluation of Social Information**	**Influencer's Revised Strategy (Adjusting One's Own Behavior to be More Effective)**
Gets Results	Uses planning to ensure each course of action achieves the desired outcome			

Phases of the Social Awareness and Influence Model

Pre-Interaction

Many day-to-day leader influence attempts may occur automatically and naturally during the course of interactions with others. In these contexts, the influence process is more a means to an end rather than a specific end in itself. However, when the influencer anticipates resistance, he or she may engage in some planning and strategizing prior to the actual influence interaction. Therefore, the pre-interaction component of model presented in Figure 1 may be a deliberate and conscious process in new or difficult situations or an automatic and unconscious process in routine situations. During the pre-interaction phase, the influencer identifies the desired outcome and sets a specific influence goal, evaluates the situation to better understand the factors that may impact the influence interaction, and develops a strategy or overall plan for the interaction. These steps are discussed in more detail below.

Influence Goal. To begin the social awareness and influence process, the influencer identifies a desired outcome and sets a goal of completing a specific task, which serves as a reference point against which progress—and the effectiveness of the chosen influence tactic—can be measured. Research has revealed that there are several commonly pursued goals when attempting to influence others (Rule, Bisanz, & Kohn, 1985). Rule et al. have identified the following as distinct types of influence goals:

- To acquire information
- To acquire a physical object
- To get power or authority from the target to do something (e.g., permission from one's superior to implement a new program)
- To get the target to do something or to help the influencer do something
- To change the target's attitude or opinion
- To get the target to go somewhere
- To get the target to buy or sell something
- To get the target to change an existing role relationship (e.g., enter into a partnership)
- To get the target to change a personal habit or characteristic (e.g., quit drinking)
- To get the target to take a risk or make a sacrifice (e.g., commit a crime)

It is important to note that the difficulty of achieving these goals may vary widely. For example, a simple request for information (e.g., directions) or action may be very easy to accomplish if the request is straightforward and both parties are in agreement as to its necessity and appropriateness. Influencers may only take the time to consciously set goals and develop a plan for achieving them if fulfilling the request is anticipated to be very challenging. That is, if the influencer and target have different or mutually exclusive goals, if the request will be difficult to accomplish, or if the influencer and target have different perceptions of what is required in a given situation.

Evaluation of the Situation. After identifying the desired outcome of the situation, the next step in the model is for the influencer to consider attributes of the situation that will help guide the selection of an influence strategy (cf., Kipnis, 1976). In selecting an initial influence strategy, an influencer might consider characteristics of the:

♦ **Influence goal** - Is the influencer's goal to complete the task, prevent interference by the target, or garner support for the mission?
♦ **Task** - How desirable is the task? How dangerous or difficult?
♦ **Situation** - What is the formal relationship between the influencer and the target? Given this relationship, what are the cultural expectations about how this interaction should occur?
♦ **Influencer** - Which sources of power does the influencer hold? Which influence tactics are the best fit with the influencer's skills?
♦ **Target** - Is the target a superior, subordinate, peer, or outside the chain of command? Which potential targets have the capabilities to perform the task, and what responsibility do these individuals have for completing the goal?

It is important to recognize that the process of considering these characteristics may be largely automatic, unless the influencer anticipates the target will be resistant. That is, an influencer may not stop to explicitly review all available information about these characteristics and combine them in some controlled manner to identify an influence strategy. Instead, these factors are descriptive of the types of information that affect the cognitive process that underlies the selection of an initial influence strategy. While this line of reasoning suggests that it may be difficult to attempt to train individuals to consider environmental factors, research shows that cognitive processes can become automatized through practice, repetition, and habit (e.g., Bargh, 1990). Further, deliberate consideration of these factors may be more important for mission success in specific situations, such as when the influencer expects or detects resistance to the influence goal. Thus, one component of the training should focus on identifying relevant features of the situation with the goal of making environmental scanning an automatic process.

Influence Strategy. The environmental factors described above will have a direct and significant impact on the influence strategy. The influence strategy is the influencer's general plan or approach for influencing the target. Two important factors to consider when selecting a strategy are (1) the nature of the relationship between the influencer and the target, and (2) the individual bases of power that the influencer can bring to bear in the influence interaction.

In the leadership context, a leader in the role of influencer must carefully consider the nature of the relationship that he or she has with subordinates when formulating an influence strategy. Several theories have been proposed to explore the nature of the leader-follower relationship, including transactional and transformational theories of leadership, Leader-Member Exchange theory (LMX), and bond testing. According to transactional models of leadership, leaders give benefits to followers, which are reciprocated by heightened esteem for and responsiveness to the leader (Hollander, 1992). Thus, over time leaders can influence followers based on past relationships in which they have previously given benefits to followers. Following this model, exchange approaches to influence are likely to yield positive results.

In contrast to transactional leadership, transformational leaders "motivate their followers to perform beyond expectations by activating followers' higher order needs, fostering a climate of trust and inducing followers to transcend self-interest for the sake of the organization" (Pillai, Schriesheim, & Williams, 1999). Thus transformational leaders may choose and have better success with influence strategies that rely on inspirational or personal appeals. However, there is evidence that good leaders use both transactional and transformational strategies (Bass & Avolio,

1993); therefore, using a combination of leadership styles may be more appropriate than reliance on any single approach.

Leader-Member Exchange theory posits that the quality of the leader-follower relationship can vary across dyads of leaders and followers. A poorly-developed leader-follower dyad may maintain a transactional relationship that is well within the bounds of the employment contract. On the other hand, a stronger leader-follower dyad that allows for trust, loyalty, and social exchange (outside the traditional employment relationship) can result in more successful influence (Brower, Schoorman, & Tan, 2000) and an increased likelihood of discretionary behavior (Settoon, Bennett, & Liden, 1996).

Bond testing offers an alternative view of the impact of the leader-follower relationship on behavior.[1] According to the bond testing hypothesis, the leader may engage in idiosyncratic or high-risk behavior (e.g., disclosure of personal information, showing vulnerability) as a way of testing the limits of follower tolerance and loyalty (Whitham & Maestripieri, 2003; Zahavi & Zahavi, 1997). Lower ranking individuals may also bond-test by engaging risky behavior with higher ranking individuals as a way to test the support that they might expect from their leadership.

By engaging in risky behavior, the individual gains information about the strength of the relationship. If the risk pays off (e.g., the behavior is accepted and/or reciprocated), the relationship may be strengthened, and the initiator of the behavior may increase his or her status in the social hierarchy – especially when the test was conducted publicly. For example, disclosure, which can pose an exposure risk to the individual, is sometimes seen as a way of building or showing trust in others, which can lead to a stronger bond in the future. In addition, disclosure can encourage disclosure from others, thereby sharing risk and developing stronger bonds. However, if the risk does not pay off, the initiator of the behavior has gained information indicating the relationship is not strong enough to "pass the test" imposed by the risky behavior. For example, behavior outside the norm may be punished with a withdrawal of support or even ridicule.

Hollander's notion of idiosyncrasy credit can be thought of as a specific case of bond-testing. Hollander (1958) postulated that individuals who are high in status have greater latitude for nonconformance to group norms. *Idiosyncrasy credit* is the term that describes the degree to which a leader is allowed to deviate from the norm. Credits can be built through an individual's perceived task competence and other non-task characteristics (e.g., status to those external to the group). From the perspective of followers, leaders are expected to conform to established norms and expectations early on, but over time they are expected to be more innovative. Leaders who perceive this change in expectations and act accordingly will build more credits. According to Hollander, to leverage this credit, leaders must have high self-awareness to accurately perceive their current level of credit. It is possible that leaders with a greater amount of idiosyncrasy credits will be able to exert more influence over group members because followers may be more likely to perceive the request as legitimate. In the Army environment, building these credits will occur when the leader exemplifies Army values, builds subordinate trust through the

[1] We would like to thank an anonymous reviewer for the insights in this section.

demonstration of personal integrity and courage, and demonstrates technical and tactical competence.

As the discussion of idiosyncrasy credit suggests, leaders may be permitted more latitude to engage in risky behavior as a function of their personal credit with followers. Thus, bond-testing may be a self-reinforcing phenomenon: leaders who engage in risky behaviors may build more trust with followers, allowing the leader more latitude in the future to take risks in relationships. Bond-testing, therefore, may be a useful strategy for influencers to gain information about the likelihood of a successful influence attempt with the target.
The relative status of the influencer and target will also have an impact on the choice of influence strategy. When formulating an influence strategy, the influencer should consider the sources of personal power that are available to him or her and that are relevant given the relationship with the target. Early work in this area has led to the identification of six sources of power (French & Raven, 1959; Raven, 1965):

- **Reward –** the influencer's ability to bestow positive outcomes.
- **Coercive –** the influencer's ability to bestow negative outcomes.
- **Legitimate –** the target's belief that the influencer has the authority over him or her and that the target is obliged to comply.
- **Referent –** the extent to which the target identifies and desires to affiliate with the influencer.
- **Expert –** the target's belief that the influencer has the knowledge and expertise to make reasonable requests.
- **Informational –** the target's belief that the influencer has access to reliable and valid information.

These sources of power contribute to one's ability to influence others (Bruins, 1999). In addition, research on sources of power specified potential outcomes of relying on each source. For example, while use of reward or coercive power to influence a target may result in completion of the influencer's immediate goal, these power bases do not alter the target's underlying beliefs or attitudes and are less likely to result in a successful long-term relationship between the influencer and the target. In contrast, the use of legitimate, referent, expert, or informational power bases is likely to support the development and maintenance of a relationship between the influencer and the target. These findings are consistent with the literature on transactional and transformational leadership (Avolio, 1999; Bass, 1985; Bass, 1998), which links transactional leadership behaviors to less successful long-term outcomes than transformational leadership behaviors. In turn, transactional leadership behaviors tend to rely on reward and coercive power bases while transformational leadership behaviors tend to rely on legitimate, referent, expert, and informational power bases. While this work provides an initial starting point for understanding the social influence process, it does not delineate specific tactics that influencers can use when interacting with targets.

Interaction

Leader Behavior/Influence Tactics. Considering that the influence strategy is the influencer's general plan or approach for influencing the target, then the influence tactics are the manifestations of this strategy during the course of the influencer-target interaction. That is, influence tactics are the concrete actions that the influencer takes to influence the target. For

example, in planning an influence attempt an influencer may rely on a transactional strategy (Bass, 1985) based on a history of exchange between the influencer and the target. To execute this strategy, the influencer may offer to provide some favor to the target as an incentive for complying with the influencer's request. The success of this approach will likely depend in large part on the degree of trust that the target has in the influencer. If, based on the prior relationship, the target believes that the influencer is likely to follow through on granting the favor, the target is more likely to comply with the request (Brower, Schoorman, & Tan, 2000). In contrast, the influencer may rely on a transformational strategy (Bass & Avolio, 1993) that entails motivating the target to comply with the request. This strategy may be implemented through the use of an inspirational appeal tactic (e.g., explaining to the target that complying with the request would serve a higher purpose such as accomplishing the mission) or a consultation tactic (e.g., getting the "buy-in" of the target by soliciting his or her input on solving the problem).

Numerous researchers have attempted to identify and evaluate the effectiveness of common influence tactics (Cialdini, 1995; Falbe & Yukl, 1992; Horey, et al., 2005; Kipnis, Schmidt, & Wilkerson; 1980; Schresheim & Hinkin, 1990; Yang, Cerverom, Valnetine, & Benson, 1998; Yukl, Chavez, & Seifert, n.d.; Yukl & Falbe, 1991; Yukl & Tracey, 1992). From this body of research it is possible to identify seventeen unique influence tactics[2]:

- **Rational persuasion** – Using logical arguments and factual evidence to persuade the target that a goal is important.
- **Inspirational appeals** – Appealing to a target's values, ideals, or aspirations to increase the target's enthusiasm or confidence.
- **Consultation** – Soliciting input from the target for achieving the goal.
- **Ingratiation** – Increasing the target's positive feeling for the influencer.
- **Exchange** – Indicating a willingness to reciprocate for assistance in meeting the goal (note: this can also be done in reverse – the influencer has already done a favor for the target and now is "calling in the favor."
- **Personal appeals** – Appealing to the target's sense of loyalty to or friendship.
- **Coalition** – Using the support of others in an attempt to influence.
- **Collaboration** – Offering to supply assistance or resources to help the target complete the goal.
- **Apprising** – Explaining the benefits of the influencer's request to the target as an individual.
- **Appeal to higher authority** – Indicating support for the goal from those higher in the organization than the influencer.
- **Consistency** – Gaining commitment to a small request first, and then leveraging that commitment to ask for commitment to larger requests.
- **Scarcity** – Indicating that the goal is rare so as to increase its perceived value.
- **Social validation** – Indicating that others have agreed with request.
- **Expertise** – Providing evidence of expertise to legitimate the request.
- **Legitimating** – Claiming or verifying one's authority to influence the target.
- **Pressure** – Using demands or threats to coerce the target into completing the goal.
- **Blocking** – Preventing the target from accomplishing another goal.

[2] There are many additional negative influence tactics, such as bullying, lying, and using logical fallacies. We did not include these tactics in this list or the associated training recommendations because of their inherent negative effects on long-term trust between the influencer and the target.

Traditionally, researchers studying the effectiveness of influence tactics measured only the dichotomous criterion of whether the influence attempt was successful. However, additional information about the effectiveness of influence tactics can be gained by treating the criterion as multidimensional. For example, Falbe and Yukl (1992) evaluated nine influence tactics against three criteria specified by Yukl (1989):

- **Commitment** – "Occurs when a target person agrees internally with an action or decision, is enthusiastic about it, and is likely to exercise initiative and demonstrate unusual effort and persistence in order to carry out the request successfully" (p. 639, Falbe & Yukl, 1992).
- **Compliance** – "Occurs when the target person carries out the requested action but is apathetic about it rather than enthusiastic, makes only a minimal or average effort, and does not show any initiative" (p. 639-640, Falbe & Yukl, 1992).
- **Resistance** – "Occurs when the target person is opposed to the requested action and tries to avoid doing it by refusing, arguing, delaying, or seeking to have the request nullified" (p. 640, Falbe & Yukl, 1992).

These criteria are organized in a hierarchy of desirability and difficulty —commitment is generally more preferable than compliance but more difficult to achieve. In turn, compliance is more desirable and difficult to achieve than resistance. However, when a single interaction between an influencer and a target is being studied, it is possible that compliance or even resistance will still lead to goal attainment, depending on the specific influence tactic the influencer uses. For example, a goal might still be achieved even if the target initially resists (e.g., when the influencer relies on pressure, legitimating, or blocking to influence the target). However, the long-term consequences of such an interaction might reduce the likelihood that the influencer could successfully influence the target—or other targets—in the future.

Higgins, Judge, and Ferris (2003) conducted a meta-analysis to examine the relationship between influence tactics and their associated outcomes. Their results show that both ingratiation and rational persuasion have positive effects on work outcomes, such as supervisory ratings of leader effectiveness. In contrast, Falbe and Yukl (1992) found inspirational appeals, consultation, personal appeals, and exchange to be the most effective tactics. These varied results highlight the fact that the effectiveness of an influence tactic is situationally dependent. That is, while the results of either study indicate that some influence tactics have specific, predictable consequences, the best approach is to tailor the use of tactics as appropriate to the situation.

Target's Interpretation and Reaction. As the influencer is attempting to persuade the target, the target perceives, analyzes, and evaluates the influencer's message. These cognitive processes are similar to the processes that the influencer uses to evaluate the target's reaction and are discussed in the section below. In this section, we will describe strategies for understanding the target's reaction to the influence attempt.

The target's reaction can manifest itself through a variety of biological signals and nonverbal behavior, such as facial expressions, body language, and verbal expressions. In close conversation, the human face is the most visible social part of the human body, and research has shown that it is the primary signaling system for displaying emotions (Ekman & Friesen, 1975;

Fridlund, 1994). Individuals' body language is also an important part of nonverbal behavior and is considered to be the mechanism individuals use to cope with the emotion (Anderson, 1999). Both facial expressions and body language are key signals that the influencer needs to be able to recognize and interpret correctly to have an accurate depiction of how the target is reacting[3].

There are two major lines of research regarding how facial expressions are generated: the neocultural theory of emotions and the behavioral ecology perspective. According to the neocultural theory, there is a direct link between facial expressions and emotions (Ekman, 1972). That is, spontaneous facial expressions are automatically triggered by emotional stimuli (Ekman, 1972; Ekman, 2003; Ekman & Friesen 1975; Ekman & Keltner, 1997). Ekman and his colleagues have identified six fundamental emotions (surprise, fear, anger, disgust, sadness, and happiness) that have a prototypical expression that can be identified and interpreted by others (Ekman, 2003; Ekman & Friesen, 1975; Ekman & Keltner, 1997). Any expression that deviates from the prototype is considered to be a blend of two or more of the prototypes. These six basic emotional expressions have been shown to be culturally universal in their performance and their perception (Ekman & Keltner, 1997); however, these facial expressions can be modified by socialization. During the process of socialization, individuals learn to deceive or mask their own emotions, and during social interaction, spontaneous emotional displays can be modified to meet the demands of the culture (Ekman, 1985).

Behavioral ecology offers a contrasting view to Ekman's (1972) neocultural theory. According to the behavioral ecology perspective, facial expressions are indicative of behavioral intentions rather than emotions, and the interpretation of expressions relies on the social context (Fridlund, 1994). From this perspective, there is a less precise relationship between facial expressions and their meaning; rather, particular behavioral intentions are broadly associated with facial expressions and the social context helps define the meaning of the expression. In support of this view, researchers have found facial behavior to vary according to factors such as age (Chapell, 1997), gender (Briton & Hall, 1995; Chapell, 1997), cultural background (Ekman, 1973), and the context of the situation (Fridlund, 1994).

In an empirical comparison of these competing theories, Horstmann (2003) found stronger support for the argument that facial expressions communicate emotions, but some support for the behavioral ecology view (particularly for the facial expression of anger). Moreover, there is evidence that facial expressions can be either spontaneous or contrived, depending on the strength of the emotional stimuli and the social context (e.g., Zaalberg, Manstead, & Fischer, 2004). Whether facial expressions are spontaneous reflections of inner emotions or more deliberate signals that people use to achieve social goals, it is clear that facial expressions are one of the most significant and visible indicators of the target's reaction to the interaction with the influencer. Thus, facial expressions and their meanings can provide critical information to help interpret targets' reactions.

In addition to facial expressions, body language and other nonverbal communication play an important role in reading the target's reaction (Fiske & Taylor, 1991). Anderson (1999), in

[3] It is not known whether the ability to detect emotional (and other) facial signals is diminished significantly among military personnel in dim light and/or when wearing camouflage face paint. Further research may be warranted on the extent to which influencers compensate for "signal degradation" in these circumstances.

noting the importance of nonverbal communication, described two studies estimating that no more than 35 percent of the meaning in conversation comes from verbal communication. Thus, having the ability to identify common nonverbal signals is useful in the influencer-target interaction. Argyle (1972) provided an inventory of ten different categories of nonverbal communication. These include bodily contact, proximity, orientation, appearance, posture, head-nods, facial expression, gestures, looking, and nonverbal aspects of speech.

Some of the categories that have particular application for an influence interaction are posture, head-nods, gestures, looking, and nonverbal aspects of speech. Posture is described as the way in which people stand, sit, or lie. Postures can be used to convey interpersonal attitudes such as friendly, hostile, superior, and inferior as well as the status of the individual. Postures also vary depending on emotional states. Head-nods are fast moving nonverbal signals that have important connections to speech. Usually these would be reinforcing signals by the target to the influencer. Gestures, which can indicate general emotional arousal or expression of a particular emotional state, refer mainly to hand movements but can also include the head and feet. Looking, or the periods that people intermittently view each other, plays an important role in communicating, and it shows a sign of interest. Nonverbal aspects of speech include the variations in pitch, stress, and timing called prosodic signals. These non-verbal signals affect the meaning of sentences and represent the true intentions behind verbal statements.

These signals can vary widely by culture, however, and the culture of the target should be carefully considered when attempting to interpret nonverbal cues. For example, Asian cultures are more indirect than American cultures, and it is considered rude to openly disagree with another person, especially a higher-status individual. Therefore, smiling and head nodding may not indicate agreement. In another example, requirements for personal space vary widely by culture. While standing too close to someone may be perceived as threatening in the U.S., in Middle Eastern cultures it is quite acceptable to stand close to others during conversation. Also, in the U.S. culture eye contact during conversation is generally viewed as a sign of interest; however, avoiding eye contact is viewed as a sign of respect in some Asian and Latin American cultures.

In a study on the degree to which verbal and nonverbal cues can be observed by others, Bartel and Saavedra (2000) developed a taxonomy of verbal expressions, facial expressions, and body postures that were indicative of self-reported moods. During several observations of work group members, observers were able to use this taxonomy to accurately identify participants' moods. According to the researchers, facial expressions were easiest to detect by observers. In addition, they noted that moods could converge in groups due to emotional contagion and emotional comparison. In a subsequent study on leadership and emotional contagion, Sy, Cote, and Saavedra (2005) demonstrated that leaders have a significant influence on the group's mood; leaders transferred their negative or positive moods to group members.

In sum, the target's reactions to the influence attempt may include facial expressions, verbal expressions, body language, and other forms of nonverbal communication. Appendix A provides a list of the most salient signals and their associated moods and emotions. These biological signals are the most visible and accessible cues with which the influencer may infer the target's reaction to an influence attempt. Understanding the target's emotional state is

important for understanding whether the influence attempt is likely to succeed. Moreover, the influencer must interpret these emotions in light of the relationship that he or she has with the target. The process that the influencer uses to perceive, analyze, and evaluate this information is discussed below.

In-the-Moment Social Awareness Process

After the influence attempt produces a reaction from the target, the influencer must try to interpret and evaluate the target's reaction. Based on this evaluation, the influencer may change his or her behavior in-the-moment (that is, immediately during the interaction) as needed to achieve the desired influence goal. This process may be more or less automatic, depending on the influencer's skills and experience. That is, influencers with more experience or certain skill sets will perceive and respond to situations rapidly because they have practiced these skills to the point where they occur without conscious thought (Bargh, 1990).

The process of in-the-moment social awareness consists of three steps. First, the influencer perceives social information from the target. Second, the influencer analyzes the social information. Finally, the influencer evaluates the effectiveness of the influence tactic by determining if the target's reaction matches his or her initial goal for the influence attempt.

Perception of Social Information. In the first stage of the in-the-moment social awareness process, the influencer perceives the target's reaction to the influence attempt. Research shows that the goals of the influencer (in this case, influencing the target) affect his or her ability to accurately perceive social information in the environment (Moskowitz, 2005). Specifically, while the influencer is trying to achieve the influence goal, he or she will engage in compensatory cognition (Moskowitz, 2001), during which cognitive activity is directed toward aspects of the environment that are specifically related to achieving the influence goal (Moskowitz, 2002). Thus, in the social awareness process, the influencer would be more likely to seek out and perceive goal-relevant stimuli, such as verbal and nonverbal cues from the target.

The specific cognitive process underlying the perception of social information may be similar to Wyer and Scrull's (1989) information processing system. According to their model, different components of social information are processed independently. Sensory input, such as visual observations of the target's facial expressions, enters the information processing system and is stored temporarily in a *Sensory Store*. Independently, a *Comprehender* unit encodes and classifies social information, for example categorization of the target's facial expression as a smile or frown. This initial perception and encoding process occurs automatically, most likely as a function of one's prior experiences (Wyer & Scrull, 1989). Therefore, to help influencers accurately perceive social information, it may be fruitful to focus training efforts on providing numerous opportunities to interact with a variety of others.

Analyzing Social Information. After social information is perceived, the influencer must analyze and integrate it with his or her existing knowledge to interpret the target's reaction. Although perceiving social information must occur prior to analyzing social information, these steps occur rapidly and in an iterative fashion, as represented in the model. That is, environmental information is perceived and then analyzed, and this analysis influences

subsequent scanning and perception of information from the environment. An accurate interpretation is needed to evaluate the reaction and decide what future actions would be most appropriate. Indeed, the relationship between perceiving social information and generating behaviors is mediated by the individual's strategy for selecting and processing relevant information in the environment (Mischel & Shoda, 1995).

This processing of social information is best described as parallel processing in a connectionist cognitive architecture. Cognitive architectures are theoretical structures that explain the mechanisms for information processing, such as encoding, interpretation, and storage, and how these operations can produce behavior (Newell, Rosenbloom, & Laird, 1989).

During a social interaction, parallel processing can assist the influencer in efficiently analyzing and processing multiple types of social information in the environment. The influencer must simultaneously process incoming social information (e.g., verbal behavior, nonverbal behavior, affective cues, and body language) and integrate this information with internal goals, values, and previous experiences. In this way, parallel processing can capture the "in-the-moment" nature of social awareness.

In the context of social cognition, schemas are the building blocks of cognitive architecture. Schemas serve as internal models of the environment, and they can serve as a basis for managing environmental information (Moskowitz, 2005). For example, an influencer's previous knowledge and experiences are organized into specific schemas that simplify the perception, storage, and evaluation of social information. These internal schemas can be activated in two key ways: (a) when the influencer is exposed to environmental stimuli that share the same features as an existing schema, and (b) when schemas share features that are related to goals that the influencer is actively pursuing (Lord & Maher, 1991).

Many different patterns of environmental information can activate the same schema as long as they are relatively well matched during a "settling in" process (Lord & Maher, 1991; p. 40); the greater the fit between the incoming social information and the existing schema, the greater the activation of their common features. The schema with the highest level of activation – that is, the schema that shares the most features with that particular social environment – will be selected to best interpret the input information and guide subsequent cognitions and behavior. Schemas can also be modified to help assimilate new information. In this sense, schemas are cognitive strategies that allow for relatively automatic information processing that is highly descriptive of—and reactive to—the environment. Thus, "in-the-moment" processing of social information is greatly facilitated by schemas (acquired through experience), which help to ensure processing is done quickly and efficiently.

Evaluation. Once information from the environment is processed and integrated with the influencer's own knowledge and schemas, the influencer must evaluate if the initial influence attempt was successful in producing the desired outcome. In other words, the influencer must determine if the initial influence goal has been met. The influencer makes this determination by comparing the target's reaction with the behavior defined by the initial influence goal. If the goal had been met, then the interaction would conclude or move on to other topics. However,

because the influence goal was not met, the influencer in this scenario may need to try another approach to achieve the influence goal.

The evaluation process is similar to the concept of self-regulation, which has been defined as "the processes involved in attaining and maintaining goals, where goals are internally represented desired states" (Vancouver, 2000; Vancouver & Day, 2005, p. 158). There are four basic processes involved in self-regulation: establishing goals, planning (selecting a strategy), goal striving (engaging in goal-relevant behaviors, in this case using a variety of tactics to attempt to influence the target), and goal revision (modifying the course of action based on feedback) (Austin & Vancouver, 1996). Thus, self-regulation processes involve monitoring the environment for feedback and making the appropriate adjustments to better meet the influence goal. Similarly, in the context of our model, the evaluation stage involves making a self-regulatory judgment as to whether or not the initial influence goal has been achieved, and if needed, making the appropriate behavioral adjustments.

More specifically, the evaluation step (and the subsequent step of revising actions to be discussed below) in our model is consistent with the steps involved in a negative feedback loop model of self-regulation (Carver & Scheier, 1981). In Carver and Scheier's model, *Goals* serve as a reference for how the system is working. An *Input* function perceives incoming information, and the *Comparator* evaluates this information with regard to the reference goal in order to determine discrepancies. If necessary, the *Output* function involves the behavioral or cognitive processes that seek to reduce the discrepancy. In a cyclical fashion, the new behaviors or cognitions that emerge have an impact on the environment, thus changing the subsequent input function as well; this constitutes the feedback loop of the model. Thus, the *Comparator* component is equivalent to the evaluation step in our model. If the influencer determines that discrepancies remain because the influence goals has not been achieved, then the influencer will revise his or her actions consistent with the *Output* function of Carver and Scheier's model.

Influencer's Revised Actions. Metacognitive processes in-the-moment of the interaction provide one explanation for how the influencer may revise his or her approach (i.e., select a different schema) when the initial approach fails to meet the influence goal. Metacognition is an active, conscious process for analyzing information via "higher-level cognitive systems that regulate moment-to-moment cognitions" (e.g., schemas; Lord & Emrich, 2000; p. 554). For example, influencers may provide more direction to subordinates if there are group problems or if group members display low levels of motivation (Wofford, Joplin, & Comforth, 1996). Consistent with the parallel processing involved in the perception and analysis of social information, connectionist architectures also capture the cognitive processes involved in metacognition. Lord, Brown, and Harvey (2001) state that individuals can rapidly adjust schemas because parallel processing enables a rapid integration of environmental information with the one's internal network of schemas. Thus, when confronted with new environmental demands, connectionist architectures account for the flexibility in schematic networks to allow for quick modifications in schema activation to take these new features into account. Consequently, the influencer is able to select a new schema and revise his or her tactics.

It should be noted that one criticism of leader adaptability is the concern that a leader who over-adapts will come across at best as "wishy-washy" and at worst unethical. For

example, a leader who constantly changes his or her approach with others may lack credibility because others could perceive that this individual can be easily influenced. Therefore, we would urge caution in the application of the social awareness and influence model with regard to limits that that influencers should place on their willingness to adjust their behavior. When we assert that adjusting one's behavior helps one to be more effective in interpersonal interactions, we are primarily advocating that the influencer change his or her interpersonal approach or technique to be maximally effective (e.g., respecting cultural differences, asking questions to understand the target's potential concerns and effectively mitigating them, demonstrating understanding of the target's perspective). However, we are not suggesting that the influencer cross legal, ethical, or moral boundaries in an attempt to be more accommodating to the target. Moreover, in a leadership position, influencers should not compromise their values or core leadership principles for the sake of persuading others. Rather, when differences in values and principles exist, the effective influencer will look for opportunities to work around these obstacles in order to persuade the target to change his or her point of view on a specific issue.

Feedback Loop. After the influencer performs the revised influence attempt, the target will once again observe and interpret the influencer's behavior, resulting in a verbal and/or nonverbal reaction. In turn, the influencer will repeat the process of perception, analysis, and evaluation to determine if the influence goal has been met. If the influencer's revised behavior was effective, the influence attempt will conclude. If the influencer's revised behavior still did not result in a successful outcome, then the influencer will need to revise his or her tactic once again. Similar to Carver and Scheier's (1981) feedback loop model of self-regulation, the cycle will continue until the influencer's goal has been met (e.g., the target has been influenced to perform.

Short- and Long-Term Outcomes. As described previously, the outcome of an influence attempt can be categorized broadly as commitment, compliance, or resistance. Although these outcomes are generally thought to be hierarchical in terms of their desirable, with commitment being the most desirable and resistance being the least desirable, the effectiveness of the outcome depends on the initial influence goal. In some cases, simple compliance may be the desired end state. In other cases, the influencer may not be asking for compliance, but commitment. For example, the influencer may be seeking support from the target for a decision that the influencer has made. In this instance, the influencer may not be asking for the target to comply with a specific request. Rather, the influencer is attempting to convince the target to adopt the influencer's point of view. A third alternative is for the influencer to seek commitment and compliance from the target (e.g., both carry out a decision made by the influencer and to wholeheartedly support the decision). Commitment is desirable in addition to compliance because a committed target is more likely to fully embrace and follow through on the influencer's request. Additionally, negative feelings between the influencer and the target that arise during the course of the influence interaction can have negative consequences for their long-term relationship as well as the long-term relationship that the target might have with others who are similar to the influencer (e.g., host nation personnel who have bad experiences with American Soldiers may carry these negative feelings over to interactions with other Americans).

Factors Affecting Influence and Social Awareness

Earlier it was noted that one's ability to accurately read social interactions and effectively influence others is affected by many factors. Some of these factors, such as the current context of the interaction, external environmental conditions, and the moods of the parties involved may have an impact on a single, immediate interaction, but may not have a long-term impact. Other factors, such as characteristics of the influencer and the target (e.g., intelligence, self-monitoring skill, personality, intelligence) and the past relationship between the influencer and the target, are likely to have a more consistent effect on the influencer's success across a number of interactions.

An understanding of these moderating factors has important implications for designing training interventions to help individuals improve their social awareness and influence skills. Understanding how these factors impact the social awareness and influence process will better inform how the training programs can be developed to diagnose and enhance performance at various points in the process. In addition, these factors vary in the extent to which they are appropriate for a selection context (i.e., inherent individual differences) versus a training context (i.e., more malleable attributes). Below we discuss each of the primary factors hypothesized to impact social awareness, their degree of influence on the social awareness process, and implications for training.

Cognitive Abilities

Individual differences in the ability to accurately perceive, analyze, and evaluate social information may be related to differences in general intelligence. For example, working memory capacity impacts one's ability to control attention to maintain or suppress information (Kane, Bleckley, Conway, & Engle, 2001). Individuals with a high working memory capacity are better able to maintain situational awareness and create a comprehensive picture of the social landscape by attending to multiple factors simultaneously. Individuals with a lower working memory capacity by definition cannot attend to as many factors in the environment and may have difficulty with self-regulation (Engle, 2002). These individuals are less equipped to incorporate new information into existing schemas and mental models, and as a result, develop less integrated and less complex mental models (Barrett, Tugade, & Engle, 2004). In the context of social awareness, this would imply that leaders with high working memory capacity could be more socially aware because they have an enhanced ability to perceive and process verbal and nonverbal cues in the environment by focusing their attention and avoiding distractions.

Another individual difference in the ability to accurately perceive and process social information is one's capacity for cognitive complexity. Cognitive complexity is the degree to which cognitive space is differentiated and integrated (Streufert & Streufert, 1978). That is, individuals with greater levels of cognitive complexity differentiate a greater number of dimensions or categories in perceiving the environment (Goldstein & Blackman, 1978), and they are better able to integrate multiple dimensions to produce an outcome (Streufert & Swezey, 1986). Thus, individuals with greater levels of cognitive complexity process information differently. They use more categories and see more commonalities among different dimensions, which results in better interpersonal perception, communication, and adaptation (Streufert &

Nogami, 1989). For example, individuals with high levels of cognitive complexity are better able to recognize when a message recipient does not understand the message, indicating greater sensitivity to nonverbal feedback (Rubin & Henzel, 1984). Moreover, higher levels of cognitive complexity correlate with one's ability to decode nonverbal cues (Woods, 1996) and take the perspective of another (e.g., Kline, Pelias, & Delia., 1991; Sypher & Zorn, 1986).

While it is commonly accepted that general intelligence is not amenable to change in adulthood, recent research suggests that one's working memory capacity could be expanded with practice (Klingberg, Fernell, Olesen, Johnson, Gustafsson, Dahlstrom, et al., 2005; Verhaeghen, Cerella, & Basak, 2004). In addition, there is some evidence that cognitive complexity can be enhanced through training (Montuori, 1994). Our recommendations for training social awareness and influence skills, therefore, would be to expose the students to a wide variety of examples and ideas to help them make new connections to their existing knowledge structures.

Personality

Core personality factors are believed to be relatively stable in adulthood (Costa & McCrae, 1988). As such, personality factors are poor candidates for training interventions. However, increased self knowledge of one's personality traits may be important in helping training participants to become more self-aware and identify their strengths and weaknesses related to social awareness and influence skills. Personality traits relevant to social awareness and influence may include:

- ♦ High nurturance/need for intimacy: Sheldon and Johnson (1993) and Sheldon (1996) found that with regard to social awareness, people high in nurturance or need for intimacy tend to take the perspective of the others more often.
- ♦ Openness to experience: Individuals who are high on openness are more likely to be receptive to social cues and be open to the possibility that a change in their own behavior might be necessary to achieve a better result in a social setting (e.g., Pulakos, Schmitt, Dorsey, Arad, Hedge, & Borman, 2002).
- ♦ Extraversion: Extraversion has been shown to predict performance in sales and management jobs (Barrick & Mount, 1991), and it has been shown to predict performance that involves negotiation or persuasion (Hogan & Holland, 2003).
- ♦ Emotional stability: Individuals who are more stable may be less likely to persist in an influence attempt and overcome resistance without becoming overly emotional (Schneider, 2001).

Previous Experience

Prior experiences likely influence the social awareness process in two ways. First, the influencer's past interactions with the target will likely have a substantial impact on the degree to which he or she can successfully influence the target. Previously, we discussed several leadership theories that describe the influence of the leader-follower relationship on behavior. Thus, the nature of this relationship is likely to have a substantial impact on the social awareness process. That is, influencers who have built up a sufficient level of trust or "idiosyncrasy credit" may be able to "cash in" these credits to successfully influence the target. Additionally, two

parties who know each other very well are more likely to be able to read each other's verbal cues, facial expressions, and body language to more accurately interpret each other's emotions.

Second, the amount of general experience that the influencer has in attempting to influence others is also likely to affect his or her success in future influence attempts. For example, in a naturalistic decision making context, people respond to novel environments by matching the current situation to situations they have experienced in the past. The more situations that one has stored in memory, the greater the reserves to draw from when establishing a match or combining elements of past situations to match the current one (Klein, 1997). In turn, this increases the likelihood of determining an appropriate response, even under time pressure and stress. An experienced individual will have a catalog of influence experiences from which to draw when choosing an appropriate strategy to influence someone. In addition, the individual may draw on experiences in interacting with people from a variety of diverse backgrounds to better interpret the target's reaction during the exchange. The greater the number of successful experiences that the individual has had, the greater the likelihood that he or she will be successful in future attempts. Therefore, training interventions should incorporate a broad variety of examples and opportunities to practice so that the training participant may begin to build a repertoire of experiences from which to draw in the future.

Knowledge and Skills

Communication/Persuasion Skills. Basic communication skills include negotiation, conflict resolution, persuasion, and collaboration skills. The leader's persuasion skills in particular can have a significant impact on the success of the influence attempt (Falbe & Yukl, 1992; Ferris, Perrewé, Anthony, & Gilmore, 2000). One important aspect of communication skills with respect to social awareness is being able to communicate in a variety of ways (e.g., casual vs. formal, democratic vs. autocratic, verbal vs. nonverbal, oral vs. written) to be effective with a number of different audiences. This includes paying attention to others' verbal and nonverbal messages so as to determine the best way to relate to them (Stevens & Campion, 1994). Skilled communicators actively listen to and observe others to determine their views and how they are reacting to the interaction. In a cross-cultural context, communicators must be mindful of the use of jargon, delivery speed in relation to the language fluency of the listener, and differences in the cultural meaning or verbal and nonverbal behavior (Berger, 1998).

Self-monitoring. Self-monitoring is skill in reading social situations, knowing what is appropriate for a given situation, and demonstrating the appropriate behavior to fit the situation. High self-monitors are more sensitive to situations and interpersonal cues, are more socially skilled (Ickes & Barnes, 1977), can communicate a wider range of emotional states, and can more accurately interpret the meaning of nonverbal behavior (Snyder, 1974). Low self-monitors tend to be themselves, regardless of the social situation they are in, and tend not to bend to the norms of the social setting (Fiske & Taylor, 1984; Lennox & Wolfe, 1984; Snyder, 1979; Snyder & Cantor, 1980). High self-monitors tend to act according to the demands made upon them in their role as leader, are better able to adapt to situational requirements, and are more successful boundary-spanners (Snyder & Cantor, 1980). Zaccaro and his colleagues (e.g., Zaccaro, Foti, & Kenny, 1991; Gilbert & Zaccaro, 1995) have found evidence that high self-monitors are more sensitive to the changing environment (social perceptiveness) and are also better able to alter

their responses in addressing these changes (behavioral flexibility). Although self-monitoring has been considered a personality variable by some researchers (e.g., Gangestad & Snyder, 2000), more recent evidence suggests that self-monitoring is better classified as a skill (Schleicher & Day, 2002) and that it moderates the relationship between personality and performance (Barrick, Parks, & Mount, 2005). As such, it may be possible to improve one's skill in self-monitoring through training.

Self-awareness. Self-awareness is the fundamental understanding that one has of his or her own strengths and weaknesses and how these manifest themselves to others (Van Velsor, McCauley, & Moxley, 1998). As such, self-awareness is related to social awareness. That is, to effectively alter one's behavior in response to feedback from others, one must first understand the target's impression regarding the initial behavior. Although increasing self-awareness has been a major area of emphasis in Army leadership development efforts (Department of the Army, 2001), it is not clear if a deep level of self-awareness is necessary for one to be successful at influencing others. Moreover, too much self-awareness may be detrimental, as numerous studies have linked a moderate degree of self-deception with a healthy ego (Helmes & Holden, 1986; Paulhus, 1991; Zerbe & Paulhus, 1987). Despite these concerns, it is expected that greater self-awareness in relation to one's ability to influence others may be helpful. Therefore, training interventions will likely need to incorporate some type of baseline self-assessment and feedback so that leaders may better understand what they must do to improve.

Metacognition. Closely related to the concept of self-awareness is metacognition, or "thinking about thinking." Metacognition refers to an awareness and regulation of one's own thought processes (Lord & Emrich, 2000; Nelson & Narens, 1990). For example, during the in-the-moment social awareness process, a leader may ask, "Am I attending fully to the target's reaction? Am I correctly interpreting the target's intent or am I making erroneous attributions? What are my preconceived biases that might make me more likely to misattribute the target's reaction?" Strengthening metacognitive skills through training may enable leaders to be more situationally aware and therefore respond more appropriately to their environment (Endsley & Robertson, 2000).

Knowledge. A leader's knowledge in a variety of domains is likely to affect the social awareness process. For example, knowledge of the target, his or her needs and motives, culture, personality, background, etc. can help the influencer in preparing an influence strategy, using the appropriate influence tactics, and accurately reading the target's reaction. Even in the absence of specific knowledge about the target, more general knowledge about influence and communication techniques may be helpful. For example, a general knowledge of nonverbal cues such as facial expressions and how to read them can help an influencer more accurately perceive and interpret the target's reaction (Archer, Costanzo, & Akert, 2001; Hall, 2001; Nowicki & Duke, 2001). Also, a general knowledge of cultural norms for communication can greatly aid the social awareness process, particularly when the cultures of the influencer and target are substantially different. Depending on the context, knowledge may have a high or low degree of impact on the social awareness process. However, it is highly amenable to training and thus appropriate as a target for interventions.

Social and Emotional Intelligence. Social intelligence has been defined as "the ability to understand the feelings, thoughts, and behaviors of persons, including oneself, in interpersonal situations and to act appropriately upon that understanding" (Marlowe, 1986, p. 52). This concept was first introduced in 1920 and is similar to a host of other constructs, such as emotional intelligence (Goleman, 1995; Matthews, Zeidner, & Roberts, 2002) and social competence (Schneider, Ackerman, & Kanfer, 1996). However, despite the prevalence of these concepts in popular literature, there has been a great deal of controversy over their meaning and utility (Landy, 2005; Locke, 2005), in part because of disagreement about whether social/emotional intelligence is trait-based or a set of abilities and skills. If social/emotional intelligence is indeed a trait, it may make a poor candidate for training. If, however, it is a set of abilities and skills (as is more likely the case), it may indeed be appropriate to address in a training context.

Political Skill. Ferris, et al., (2000) define political skill as "an interpersonal style that combines social astuteness with the ability to relate well, and otherwise demonstrate situationally appropriate behavior in a disarmingly charming and engaging manner that inspires confidence, trust, sincerity, and genuineness" (p. 30). According to these researchers, the difference between political skill and other related constructs is that political skill involves actively attempting to control the work environment through social skills and influencing others. Thus, people high in political skill are able to influence others without appearing insincere or manipulative. This construct is not a single trait or skill, but a composite of several skills. Reputation, emotional control, and social capital all may contribute to political skill. Political skill is directly related to one's ability to effectively influence others, and as such may be an appropriate target for a training intervention (Ahearn, Ferris, Hochwarter, Douglas & Ammeter, 2004).

Situational Characteristics

No discussion of moderating factors would be complete without a discussion of the role of situational characteristics. Situational characteristics can be thought of as a filter through which all the other factors flow during the social awareness process. For example, the nature of the task or mission may make the success of the influence attempt more or less likely. With an easy task, the target may more readily agree to comply with the influencer's request. Likewise, if the task is clearly of critical importance, the target may also readily agree to comply, especially if he or she perceives that complying fits with his or her personal needs and goals. In contrast, an obviously difficult task may make it easier for the influencer to detect and correctly interpret any resistance from the target, though it may make the influence attempt itself more difficult.

In addition to the nature of the task, the characteristics of the target have an impact on the social awareness and influence process (Mowday, 1978). All of the factors discussed earlier as applied to the influencer could apply equally to the target. For example, the target's general level of agreeableness may make him or her more or less likely to acquiesce to the influencer's request. In addition, the degree of affect or liking that the target has for the influencer may have an impact on his or her willingness to comply (Ferris & Judge, 1991). Beyond individual characteristics of the target, there are also the cultural and political environments (Gelfand & Christakopulu, 1999; Gelfand, Nishii, Holcombe, Dyer, Ohbuchi, & Fukuno, 2001; Porter, Allen & Angle, 1981).

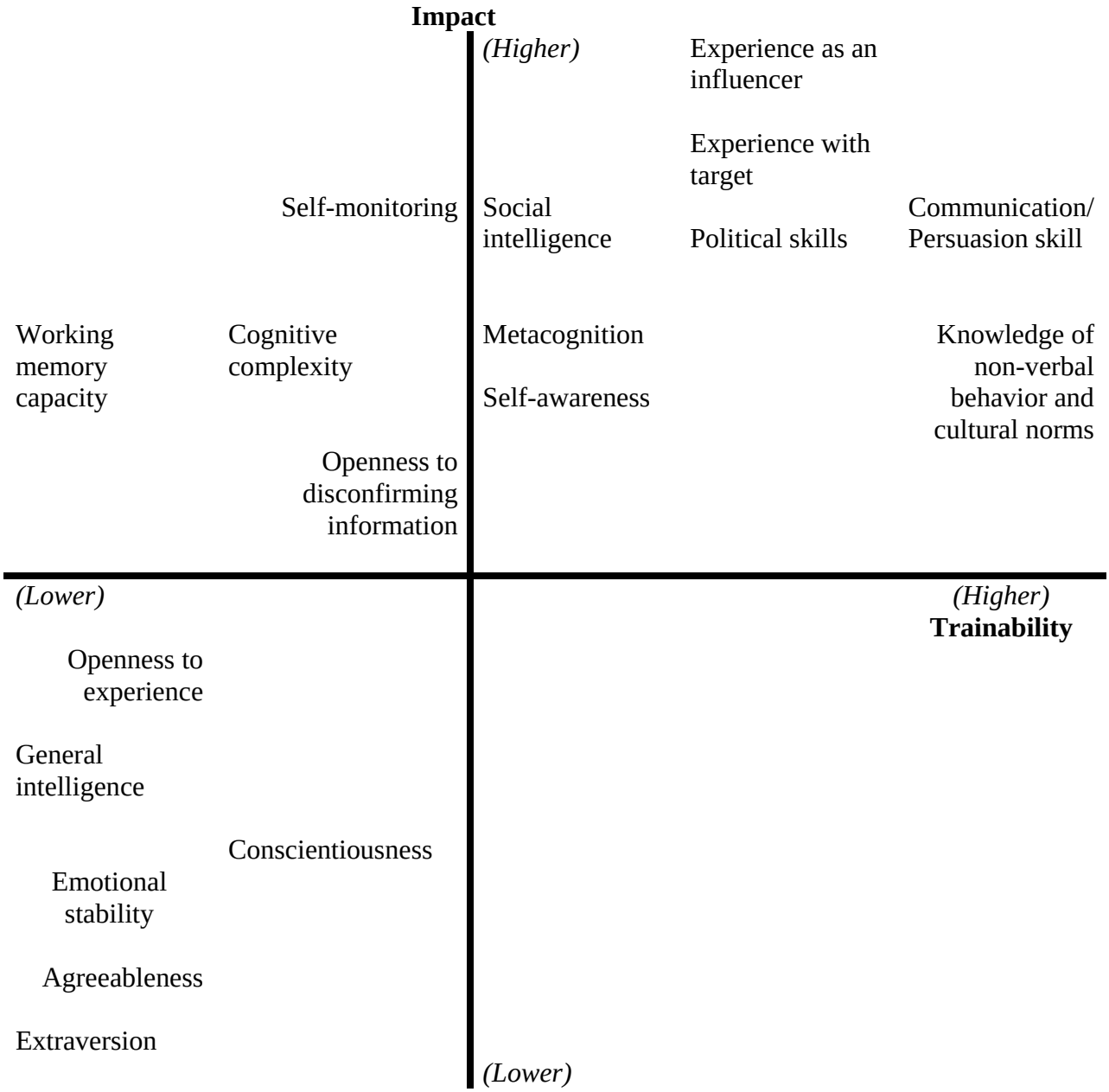
Even environmental factors such as climate, elevation, and terrain, can affect the social awareness process if they serve to distract or drain the energy of the influencer or the target. For example, Baumeister, Muraven, and Tice (2000) have proposed that a failure to self-regulate behavior is due to depletion of energy that serves to control impulses and habits—termed ego depletion. According to this research, the same resource is used for a variety of self-regulation operations, and this resource is limited. Therefore, too many distractions or environmental obstacles can drain the resources of the influencer, making it more difficult to successfully influence others. The automaticity that comes from experience and practice may mitigate this effect by allowing the influencer to use fewer resources to achieve the same result.

While the influencer may have no direct control over any of the situational factors mentioned above, he or she may at least be aware of the impact that the situation has on the influence attempt and plan appropriately. For example, if the influencer is aware of the personality of the target, he or she may be able to select a more effective influence tactic. Likewise, if the influencer is aware of the target's true needs and motives, he or she may be able to more successfully negotiate with the target. The degree to which these factors will influence the social awareness and influence process is discussed in more detail in the next section.

Factor Impact and Trainability

To date, there is no direct research evidence regarding how these factors affect the "in-the-moment" social awareness process. Therefore, the research authors all participated in an expert judgment task in which the authors rated each factor described above for the extent to which it was likely to (a) have an effect on social awareness and (b) be improved through training or experience. Figure 2 shows the results of these ratings. The vertical axis demonstrates the degree of impact. At the top are factors hypothesized to have a high impact on the social awareness process, and factors that have a lesser impact are toward the bottom. The horizontal axis demonstrates the degree of trainability. Factors on the left are generally thought to be immutable and thus poor candidates for training. Factors on the right are believed to be more malleable and thus better candidates for training.

Figure 2. Impact and Trainability Matrix



As shown in the figure, experience (both as an influencer in general and with the target specifically), knowledge of non-verbal behavior and cultural norms, communication/persuasion skills, political skills, social intelligence, metacognition, and self-awareness are the highest impact factors that are also most likely to be improved through training. In the next section we describe how the appropriate factors may be incorporated into a concrete training intervention.

Implications for Training

As described in the introduction, a key goal of this project is to develop a training program that will help Army leaders to increase their ability to be socially aware in interactions with others and to subsequently improve their skill in influencing others. Little research exists that evaluates the efficacy of training interventions to improve social awareness and influence skills. However, as shown in Figure 2, there are a number of factors hypothesized to relate to social awareness and influence which may be amenable to change. Our recommendation is that the training focus on specific skills in the context of realistic examples and scenarios to help Army leaders rapidly acquire relevant experience. In this section, we describe our general recommendations for topics to include in a social awareness and influence training program. In the next section, we describe how these recommendations were translated into a set of initial training concepts and delivered to a sample of Army leaders in a pilot training program.

Outline for a Social Awareness and Influence Training Program

Our recommendations for the development of a social awareness and influence training program are aimed at helping leaders to enhance their skills to the point that they become more automatic. Automaticity of a skill develops once a learner has engaged in elaborative processing, which facilitates the application of skills to performance situations (May & Kahnweiler, 2000). Accordingly, the recommended training approach will include an integrative role-play (May & Kahnweiler, 2000), and, to the extent feasible, successive practice sessions to promote over-learning and mastery. Specifically, we would propose that the social awareness and influence training program consist of the following components:

♦ *Baseline Assessment.* Self-awareness is thought to be a key component of leadership development (Department of the Army, 2001; Van Velsor, et al., 1998), and it is particularly important in developing social awareness. As Fernandez (1991) noted, "the most important technique to be successful [in interacting with diverse others] is to know and understand who you really are" (p. 242). However, new leaders typically receive very little feedback on their ability to effectively interpret interpersonal situations. Therefore, a baseline assessment is essential for leaders to understand where their strengths and weaknesses are in this area. This type of feedback is essential to the "unfreezing" process that makes one more ready to learn (Van Velsor et al., 1998).

The baseline assessment may be conducted through a variety of methods. For example, there are several commercial measures that assess one's ability to read facial expressions (e.g., the Micro Expression Training Tools and Subtle Expression Training Tools programs, METT/SETT, developed by Dr. Paul Ekman) and social situations; for example, the Interpersonal Perception Task (Constanzo & Archer, 1989), and the Profile of Nonverbal Sensitivity (Rosenthal, Hall, Dimatteo, & Rogers, 1979). In addition, there are a variety of self-report measures that may be used to evaluate social awareness and influence skills, such as the Social Competence Inventory, Version 2 (Schneider, 2001). Appendix B provides detailed descriptions of the pre-existing products that were reviewed for this project.
Alternatively, a customized role-play assessment could be developed to more fully evaluate the participants' ability to influence others. Videotaping the participants as they participate in the

role-play can also be a powerful tool for increasing self-awareness (Guthrie & Kelly-Radford, 1998). For example, participants can be videotaped as they engage in an influence attempt. Later, they can review the video and get direct feedback on how they appear to others. Regardless of which method is chosen for the baseline assessment, a similar assessment could also be used as a post-test to assess the degree of learning that occurred in the intervention.

♦ *The Social Awareness Process.* To better understand the influence context, we would recommend that participants receive a brief overview of the entire social awareness process. As part of this overview, participants would learn about the factors that influence this process, such as the relationship between the influencer and the target, characteristics of the situation, and the characteristics of the people in the interaction. Understanding how this process works and why it's important for influence will serve as an advance organizer for the course as well as help the participants better understand the importance of the topic. Advance organizers help participants organize and make sense of information that is presented (Goldsmith & Kraiger, 1997; Goldstein, 1993; Howell & Cooke, 1989; Smith, Ford, & Kozlowski, 1997). That is, advance organizers can provide participants with an initial framework, which will help them to make connections between what they are learning and their existing knowledge base.

♦ *Reading Others.* Skill in accurately reading others' reactions is a key component of social awareness (Zacarro, 2001). As such, participants would be provided instruction on reading verbal cues, facial expressions, and other nonverbal cues (i.e., body language). There are a variety of products available in the public domain that may be useful for this purpose, such as the METT/SETT, the Interpersonal Perception Task (Constanzo & Archer, 1989), the Profile of Nonverbal Sensitivity (Rosenthal et al., 1979), and the Social Knowledge Test (Schneider & Johnson, 2005). Ideally, the chosen product would allow the participants the opportunity to observe a variety of relevant social interactions and then attempt to interpret the thoughts and feelings of the individuals in the interaction by reading their verbal and nonverbal cues.

♦ *Influence Tactics.* The primary influence tactics, as described earlier in this report, would be reviewed along with the strengths and weaknesses of each. Participants would be encouraged to discuss their own experiences with these tactics, and they should be given the opportunity to practice them. As part of this discussion, consideration should be given to when these various tactics may or may not be appropriate to use. Additionally, participants could engage in several short role-play activities to practice these tactics. These role-plays would be developed specifically for this training program, and would be based on real-world Army examples.

♦ *Social Awareness and Influence Practice and Feedback.* Using a behavioral modeling framework (Bandura, 1977), we recommend that participants have the opportunity to observe the entire social awareness and influence process, practice their own skills during this process, and obtain feedback on their performance. A number of studies have demonstrated the effectiveness of this technique in teaching skills and enhancing transfer back to the workplace (e.g., Beard, Salas, & Prince, 1995; Goldstein & Sorcher, 1974; Latham & Saari, 1979; Salas, & Cannon-Bowers, 2001). Specifically, we recommend that participants view videotaped examples of influence interactions—both successful and unsuccessful. Ineffective behavior models should be used in addition to effective behavior models so that trainees can learn to discriminate between good and bad behaviors as well as generalize to other environments (Baldwin, 1992; Robertson,

1990). Pre-existing video interactions could be used (e.g., influence scenarios from the Social Knowledge Test, Schneider & Johnson, 2005), or customized videos could be developed for the course. Then, participants would discuss the interactions, specifically key aspects of the leaders attempted influence, the target's reaction, the leader's revised behavior, and the leader's ultimate success or failure. By watching the models in the video and deriving key concepts through discussions, the participants would be engaging in discovery learning (Smith et al., 1997). Discovery learning, or guided discovery, is an inductive method of instruction by which participants develop and test hypotheses in order to infer and learn strategies for effective performance. As such, discovery learning is a technique that fits in well with the principles of adult learning theory (London & Bassman, 1989). Moreover, the active nature of discovery learning can lead to deeper knowledge structures and potentially improved metacognitive and self-regulatory skills (Kozlowski, 1998).

In addition to watching video models engage in influence interactions, participants should have the opportunity to actively practice and obtain feedback on their social awareness and influence skills (Ferris et al., 2000; Klein, DeRouin, & Salas, 2005). This practice and feedback is best carried out in a role-play. A powerful mechanism for feedback is to videotape the role-players for later review and discussion. During the playback, participants would be able to view and discuss their reactions to the influence attempts, and participants who were in the "influencer" role would get direct feedback on whether they accurately interpreted the target's reaction and were able to modify their behavior as needed to achieve a successful outcome. If videotaping participants is not feasible due to resource limitations, participants could provide each other feedback via a guided discussion after the role-play.

We recommend that several practice and feedback role-plays be conducted to give participants a broad array of experiences with several different partners. Additionally, practice sessions should be conducted in a building-block fashion. For example, participants could practice reading each other's emotions, attempting various influence tactics, adapting their own behavior to achieve better outcomes, and then put all of these steps together in a single interaction.

Prior to developing a complete training intervention, it is necessary to pilot test some of the concepts described above to determine the viability of the social awareness model and resulting training recommendations. Therefore, as part of this project, we acquired and developed several of the above training concepts and conducted a pilot test of these concepts. The pilot test research design and results are discussed in detail in the next section.

Method

The purpose of the pilot test was to make an initial evaluation of some of the components of the social awareness and influence model. We addressed two primary research questions regarding in-the-moment social awareness in the pilot test:

- Can the accuracy of perceptions of social information be improved through training?
- Can one's ability to use social information to influence others be improved through training?

Given the exploratory nature of the model and the limited sample size available for the current research, we proposed these research questions rather than formal hypotheses. These research

questions allow us to conduct an initial evaluation of core components of the social awareness and influence model and identify formal hypotheses for testing on a larger sample.

To address these questions, we measured the effectiveness of the training program at two levels (Kirkpatrick, 1998): participant reactions to the training (Level 1) and participant learning on knowledge and skills related to the training objectives (Level 2). Participant reactions were gathered using a reactions questionnaire that was administered at the conclusion of each pilot test session. The questionnaire measured both perceived benefits of the course and satisfaction with each component of the course. Participant learning was assessed using pre- and post-tests of relevant knowledge and skills. The pilot test methodology and results are described in detail in the following sections.

Participants

A total of nine pilot test sessions were conducted at three separate United States Army locations. The first four sessions were conducted at Fort Bliss, Texas during the week of January 10, 2006. The next four sessions were conducted at Fort Bragg, North Carolina during the week of January 17, 2006. The final session was conducted at Fort Hood, Texas on April 20, 2006. Participants at Fort Bliss came primarily from the Air Defense Artillery and participants at Fort Bragg came primarily from the Medical Services Corps. Participants at Fort Hood came from a variety of different units. A total of 72 individuals participated in the pilot test. Fifty-one of the participants were men and 21 were women. Participants were primarily in first-line leadership roles, including captains (n = 15), lieutenants (n = 14), senior non-commissioned officers (n = 30), and non-commissioned officers (n = 11); 61.3% of the participants were White, 29.0% were African American, 4.8% were Hispanic, 3.2% were Asian, and 1.6% of the participants' race was unidentifiable[4]. Participants were tasked to attend the pilot test as part of umbrella week activities; however, participation was voluntary.

Materials

The first step in developing the materials to be used in the pilot was to articulate the learning objectives for the training program. The learning objectives with their corresponding course components are presented in Table 2.

Table 2. Training Course Learning Objectives

Learning Objectives	Course Component
TO 1: Given a definition of social awareness and influence, describe the importance of these concepts to military leadership as defined in the lecture materials.	Course Overview
TO 2: Given a role-play scenario, develop an awareness of own social awareness strengths and development needs by comparing self perceptions of effectiveness with other's	Pre-Test Role-Play Exercise

[4] Information on race was not available for participants from Fort Hood. These percentages represent participants from Fort Bliss and Fort Bragg only.

Learning Objectives	Course Component
perceptions of effectiveness.	
TO 3: Given a portion of the PONS assessment, identify baseline skill level in the correct interpretation of facial expressions, voice tone, and posture.	PONS (Profile of Nonverbal Sensitivity) Pre-Test
TO 4: Given a model of the social awareness process, describe how the process works in the context of an example influence attempt.	Social Awareness Lecture/Discussion
TO 5: Given a set of photographs and video clips, identify the appropriate emotion based on facial expressions as defined in the SETT training program.	SETT (Subtle Expression Training Tool)
TO 6: Given an influence goal, persuade another person to support this goal. Support is defined by both short-term compliance (e.g., agreeing to support a decision, agreeing to comply with a task, etc.) and long-term commitment (e.g., following through to complete the request, changing one's own perspective to be congruent with the influencer's perspective).	
EO 6a: Given a list of influence tactics and their definitions, describe when each tactic is appropriate to use and the potential benefits and drawbacks of each tactic as defined in the lecture materials.	Influence Lecture/Discussion
EO 6b: Given a list of influence tactics and a discussion topic, effectively demonstrate at least two separate tactics using the "Influence Tips" handout.	Influence Role-Play Exercise
TO 7: Given a video clip of a social interaction, evaluate the actor's level of social awareness and effectiveness in using influence tactics in comparison to expert ratings.	Social Knowledge Video Exercise
TO 8: Given a portion of the PONS assessment, demonstrate an improved ability to correctly interpret facial expressions, voice tone, and posture as defined by improved scores on the PONS.	PONS (Profile of Nonverbal Sensitivity) Post-Test
TO 9: Given a role-play scenario, demonstrate improved in-the-moment social awareness and influence skill as confirmed by observer reactions.	Post-Test Role-Play Exercise

A brief description of each course component and the process used to develop it is provided below. The instructor manual for the pilot course includes all the course materials and measures.

Pre- and Post-Test Role-Play Exercises. Six scenarios were developed for the pre- and post-test role-play exercises. Use of the scenarios was counterbalanced in the pilot course such that each scenario was used for both pre-testing and post-testing during the course of the various pilot

sessions. However, on any given day, different scenarios were used for the pre- and post-test. Although the role-play exercises were designed initial for assessment purposes; they were also useful as teaching opportunities in that students were able to practice their skills and receive feedback on their efforts. Table 3 presents a summary of the counterbalanced measures given on each day.

Table 3. Summary of Counterbalanced Measures

Day	N	Pre-Test			Post-Test		
		Scenario 1	***Scenario 2***	***PONS***	***Scenario 1***	***Scenario 2***	***PONS***
1	**6**	Granting Leave	Clean-Up Crew	Face/Body Verbal Expressions	New PT Program	Sick Volunteer	Full PONS
2	**5**	Corporal Bennett	Lost Radio	N/A[5]	Granting Leave	Clean-Up Crew	N/A
3	**5**	New PT Program	Granting Leave	Face/Body Verbal Expressions	Lost Radio	Corporal Bennett	Full PONS
4	**8**	Sick Volunteer	Clean-Up Crew	Face/Body Verbal Expressions	New PT Program	Lost Radio	Full PONS
5	**10**	Granting Leave	Clean-Up Crew	Face/Body Verbal Expressions	New PT Program	Sick Volunteer	Full PONS
6	**8**	Corporal Bennett	Lost Radio	Full PONS	Granting Leave	Clean-Up Crew	Face/Body Verbal Expressions
7	**8**	New PT Program	Granting Leave	Full PONS	Lost Radio	Corporal Bennett	Face/Body Verbal Expressions
8	**11**	Sick Volunteer	Clean-Up Crew	Full PONS	New PT Program	Lost Radio	Face/Body Verbal Expressions
9	**10**	Granting Leave[6]	Corporal Bennett	N/A[7]	Sick Volunteer	Clean-Up Crew	N/A

[5] Note: due to an equipment malfunction, PONS data are not available for this session.
[6] Note: Based on feedback received for the first two sessions, minor modifications were made to the role-play scenarios prior to data collection at Fort Hood.
[7] Note: Based on feedback received for the first two sessions, the PONS was not administered at Fort Hood.

The scenarios were adapted from existing critical incidents from other ARI-funded projects and were modified to fit a general Army audience. To initially test the role-plays we conducted several informal pilot sessions with experienced Industrial/Organizational psychologists to refine the instructions and observational measures. The role-play exercises were designed to test participants' effectiveness at each major phase of the social awareness and influence process (e.g., choice of appropriate influence tactic, accurate interpretation of the other's reaction, and modification of behavior to be more effective). There were two defined roles in the role play, the "influencer" and the "target of influence."

Both the influencer and the target materials included extensive role instructions. The influencer was tasked with persuading the target to comply with a particular request and/or support the influencer's perspective on a particular issue. For example, in one of the role-plays, the influencer was tasked with convincing the target to help look for a lost radio. In an effort to enforce some level of standardization on the targets' reactions, the target was given specific instructions on how to respond to the various influence tactics. In the lost radio scenario, the target was instructed to respond positively when the influencer focused on the mission and clearly explained why not looking for the radio would be detrimental. In contrast, the target was instructed to respond negatively if the influencer tried to use a personal appeal or exchange tactic. Targets were instructed to respond with both verbal and nonverbal cues (e.g., smiling and leaning forward for positive responses, and frowning and crossing arms for negative responses). Note that the purpose of the instructions to the target was to minimize the effect of the individual targets when evaluating whether the leader was able to read the target's reaction and adjust his or her behavior as appropriate. Thus, the focus was not on using the "correct" influence tactic in an objective sense, but rather on learning, through trial and error, how to read verbal and nonverbal cues and adjust his or her behavior to get a more positive response.

The influencer's performance in the role-play was evaluated through the use of structured behavioral observation measures. Three checklists were created for each scenario: one for the influencer to make a self rating, one for the target to rate the influencer's effectiveness and one for an observer (usually an instructor) to rate the influencer's effectiveness. Each checklist included eight questions that were designed to measure the major components of the social awareness and influence process, including articulating an initial goal, selecting an influence strategy, adjusting behavior in response to negative reactions, and gaining various levels of compliance and commitment.

Pre- and Post-Test PONS (Profile of Nonverbal Sensitivity). The Profile of Nonverbal Sensitivity (PONS*;* Rosenthal et al., 1979) was used as the second pre- and post-test measure. The PONS is a commercially available measure that evaluates one's ability to perceive and interpret the meanings of nonverbal cues through facial expressions, body posture, vocal tones, and combinations of these cue channels. The PONS consists of a series of short video/audio clips containing nonverbal cues. After each clip the test taker is asked to answer a multiple-choice question about the context of the clip (e.g., "Is the woman in this clip (a) nagging a child or (b) enjoying nature"). The answers for each clip are based on one of four dimensions: (1) positive/submissive, (2) positive/dominant, (3) negative/submissive, and (4) negative/dominant.

For the purposes of this training we used two shortened versions of the PONS because sufficient time was not available to use the full PONS. One version consisted of two subsets of items from the full PONS that were developed by Rosenthal et al. (1979): the *Face and Body* subset (consisting of 40 items) and the *Vocal Expressions* subset (consisting of 40 items). The other version consisted of the first 65 items from the full-length PONS. These items included facial expressions, body posture, and vocal tones. In selecting these items, we ensured that approximately the same number of items for each dimension from *Face and Body* and *Vocal Expressions* were present in the first 65 items of the full-version. The tests were counterbalanced by giving the *Face and Body* and *Vocal Expressions* as the pre-test for the first 30 participants and the first 65 items of the full PONS as the post-test. For the remaining 27 participants, the first 65 items of the full PONS were used as the pre-test and the *Face and Body* and *Vocal Expressions* subsets were used as the post test[8]. Due to ongoing difficulties in the use of the PONS, use of this assessment was discontinued after the eighth day.

Social Awareness Lecture/Discussion. This section of the training course was designed to provide the participants with knowledge about what social awareness is, why it is important for Army leaders, and how the process of social awareness works within an influence context. This was accomplished by creating a lecture and discussion using the model of Social Awareness in the Context of Leader Influence from Figure 1 and a case study.

SETT (Subtle Expressions Training Tool—Group Version). The purpose of this portion of the training was to give participants the opportunity to learn about facial expressions and practice interpreting them. Additionally, this component was designed to emphasize the importance of the social information that one can acquire by attending to an individual's facial expressions. The SETT is a CD-ROM training tool developed by Dr. Paul Ekman, and it is designed to teach individuals to recognize subtle signs of emotion in others from their facial expressions. The tool presents short video clips of subtle facial expressions in one localized area of the face that correspond with one of seven emotions (fear, happiness, surprise, sadness, anger, disgust, and contempt; note these emotions are identical to Ekman's fundamental emotions described previously with the addition of "contempt"). The tool gives participants a chance to learn the subtle expressions for each of the seven emotions and take practice tests to assess what they have learned. The SETT was chosen in part because it has been widely and successfully used in military and government contexts.

Influence Lecture/Discussion. This component of the training course was designed to give participants detailed information about influence. More specifically, a lecture incorporating a large amount of group discussion was developed that focused on influence and influence tactics, their definitions, and when they are appropriate to use.

Influence Tactic Role-Play Exercise. A short role-play exercise was developed for participants to practice using the tactics they learned during the *Influence Lecture/Discussion.* During the role-play, participants would pair up and take turns being the influencer or the target of the influence. They were given a broad topic to discuss (such as legalizing marijuana) and instructed to take opposite perspectives when discussing the topic. Broad topics were chosen to

[8] Due to a technical malfunction during one session, PONS data are not available for five participants.

ensure that the participants would be able to generate a sufficient amount of ideas in a short amount of time and so that the topics would be familiar to the participants.

Social Knowledge Video Exercise. The purpose of this activity was to use a behavioral modeling framework to allow participants the opportunity to see an influence attempt and then discuss the influencer's effectiveness. Two separate video vignettes were chosen from the Social Knowledge Test (Schneider & Johnson, 2005): a peer-to-peer influence attempt and an upward influence attempt. The Social Knowledge Test was originally developed for use in assessing knowledge of effective and ineffective interpersonal behaviors, and it consists of videotaped interactions between actors playing Army roles. Prior to the pilot, two researchers coded the vignettes by identifying the influencer's strategies, tactics, and actions along with the target's reactions for each video. This coding was done to help the instructor guide the discussion while facilitating the exercise.

Social Awareness and Influence Pilot Evaluation. A survey consisting of 21 items was developed to assess the participants' reactions to the (1) design of the course, (2) perceived relevance of course content, and (3) perceived usefulness of course content. The measure consisted of a mixture of items rated on a 5-point Likert-type scale as well as open-ended questions.

Procedure

The pilot sessions were six hours in duration. One session was conducted per day at each U.S. Army post, and each group received the same content delivered in the same manner. The instructors were five of the research authors. The instructors were all experienced facilitators who were intimately involved in the development of this research. The instructors all used a detailed manual that provided them with standardized guidelines and instructions on how to facilitate the course. Two instructors facilitated the course each day; one instructor facilitated the morning and one facilitated the afternoon. Additional instructors assisted throughout the training course by facilitating small group discussions during specific exercises. Instructors rotated sessions to avoid facilitator effects.

Table 4 provides an outline of the procedures for each component of the pilot test[9]. See the instructor manual for a description of the detailed procedures.

Table 4. Outline of Procedures

Course Component	Procedure
Introduction and Overview	▪ The instructor gave a brief introduction and overview, which lasted 10 minutes.
Pre-Test Role -Play Exercise	▪ The instructor described the exercise and gave detailed directions. ▪ The participants paired up and reviewed their role instructions. During the preparation period, the instructor pulled the targets out of the room and coached them on how to respond to the influencer in accordance with the written instructions.

[9] Note that the procedures for Ft. Hood did not include the use of the PONS either as a pre or post-test.

Course Component	Procedure
	▪ Each pair engaged in two different role-plays to allow each person in the pair to be evaluated as the influencer. ▪ Where possible, each pair had an instructor observe the role-plays and rate each influencer by using the observer checklist. ▪ After each role-play concluded, the instructor asked the individuals to fill out their respective checklists. ▪ Where possible, the observing instructor facilitated a discussion about the influencer's performance. ▪ In all cases, students received feedback about their performance from their peers. ▪ The activity lasted approximately 1 hour and 10 minutes.
Pre-Test PONS	▪ The instructor described the measure and provided detailed directions. ▪ The activity lasted approximately 20 minutes.
Social Awareness Lecture/Discussion	▪ The instructor facilitated a lecture and discussion about social awareness. ▪ The activity lasted approximately 40 minutes.
SETT (Subtle Expression Training Tool)	▪ The instructor described the training tool and gave some background about subtle facial expressions. ▪ The instructor guided the participants through a discussion of each emotion and its corresponding facial expressions. ▪ The instructor facilitated a portion of one of the practice tests as a group discussion. ▪ The activity lasted approximately 30 minutes.
Influence Lecture/ Discussion	▪ The instructor facilitated a lecture and discussion about influence and influence tactics. ▪ The activity lasted approximately 30 minutes.
Influence Role-Play Exercise	▪ The instructor described the activity and provided detailed directions. ▪ The participants were asked to pair up with a different person than the first role-play. ▪ The pairs engaged in two different role-plays with different topics. ▪ Each person had the opportunity to play the role of the "Influencer" and practice using the tactics. ▪ Where possible, one instructor was paired with each group and facilitated a discussion about the effectiveness of the "Influencer's" use of influence tactics after each role-play concluded. ▪ The activity lasted approximately 20 minutes.
Social Knowledge Video Exercise	▪ The instructor described the activity and provided detailed directions. ▪ The participants watched two videos and engaged in a discussion about the key aspects of the leader's influence attempt, the target's reaction and interpretation, the leader's revised behavior,

Course Component	Procedure
	and the leader's ultimate success or failure.
Post-Test Role Play Exercise	▪ The procedure was identical to the *Pre-Test Role-Play Exercise* except that different scenarios were used.
Post-Test PONS	▪ The procedure was identical to the *Pre-Test PONS, except a different set of PONS items was used.*
Conclusion and Evaluation	▪ The participants completed the *Social Awareness and Influence Pilot Evaluation* form.

Results

Improving Social Perceptiveness Through Training

To address the first research question (*Can the Accuracy of One's Perceptions of Social Information be Improved Through Training?)* we conducted a series of analyses. Table 5 presents the results of the level 1 analysis, which were collected using a 5-point Likert scale. Participants had a positive reaction to the training and indicated high levels of agreement with statements such as "This course helped me to better recognize and accurately interpret nonverbal cues from others." and "This course helped me to better change my own behavior to more effectively interact with other people." These results indicate that participants perceived that the training would improve their performance related to the key objectives of the training.

Table 5. Results of Level 1 Analyses

Evaluation Item	Mean	SD
This course helped me to better understand the importance of social awareness and influence to Army leaders.	4.26	0.67
This course helped me to learn more about my own strengths and development needs related to social awareness and influence.	4.31	0.67
This course helped me to better understand the social awareness and influence process.	4.36	0.57
This course helped me to better recognize and accurately interpret nonverbal cues from others.	4.14	0.89
This course helped me to better change my own behavior to more effectively interact with other people.	4.16	0.75
This course helped me to more effectively influence others.	4.07	0.67
Overall, I believe that what I learned in this course will help me to be a better leader.	4.17	0.70
The instructors effectively facilitated this course.	4.64	0.57
The course materials were organized and easy to use.	4.51	0.63
Overall, I believe this course was worthwhile.	4.36	0.74
I'm planning to use what I learned in this course in future interactions with other people on the job.	4.28	0.68

Note: $N = 72$. Ratings were made on the following scale: 1 = Strongly disagree, 2 = Disagree, 3 = Neither Agree nor Disagree,
4 = Agree, 5 = Strongly Agree.

To examine participants' learning on knowledge and skills related to the training objectives, we first compared pre- and post-test scores on the PONS[10] by conducting a within-subjects analysis of variance where test form (pre versus post) served as the within-subject

[10] For participants at Fort Bliss and Fort Bragg only.

factor. To prepare the data for analysis, we calculated percent correct scores for each participant to account for the differing number of items on each form. Consistent with the counterbalancing procedure, we assigned Group A (the first 30 participants) these scores from the Face and Body and Vocal Expressions to the pre-test and the first 65 items of the full PONS as the post-test. For group B (the remaining 27 participants), we assigned the first 65 items of the full PONS to the pre-test and the Face and Body and Vocal Expressions to the post test. Table 6 provides descriptive statistics for all PONS forms. Training did appear to have a significant effect on PONS scores; $F(1, 53) = 5.22$, $p = .026$.

Table 6. Descriptive Statistics for PONS Forms

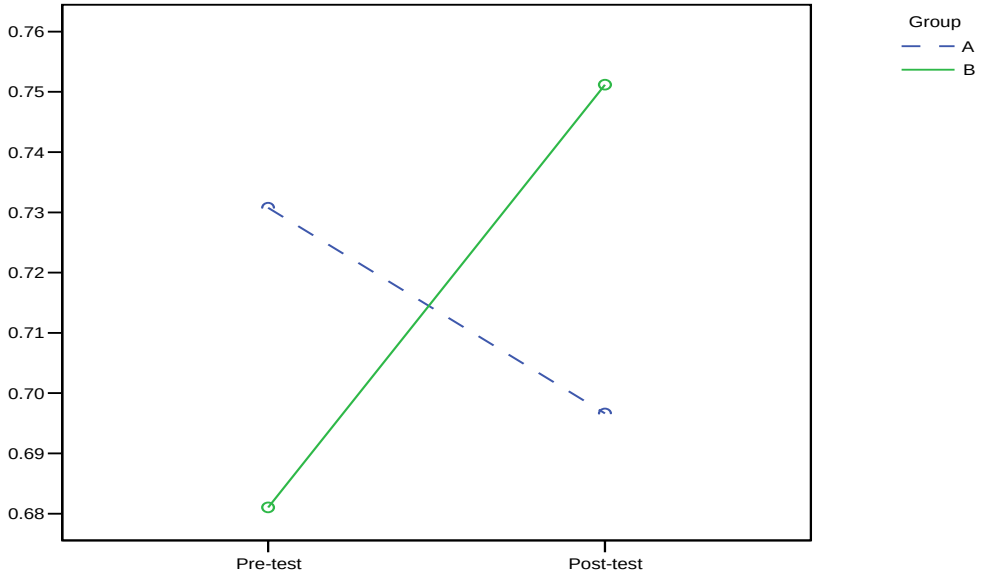
Administration	F&B/ VE (65 items)			Full PONS (80 items)		
	M	*SD*	*n*	*M*	*SD*	*n*
Pre-test	47.50 (73.1%)	5.24	26	54.50 (68.1%)	3.47	29
Post-test	48.83 (75.1%)	3.13	29	55.73 (69.7%)	4.61	26

Note: Due to the counterbalancing of the test forms, the results in this table should be interpreted as follows: Group A answered 73.1% of the pre-test items correctly and 69.7% of the post-test items correctly, while group B answered 68.1% of the pre-test items correctly and 75.1% of the post-test items correctly.

However, these results for the PONS must be interpreted in light of a few cautions. First, the psychometric quality of the PONS versions we used was poor. The observed internal consistency estimates were all quite low, ranging from .24 for the combined Face and Body and Vocal Expressions scales (which individually had reliabilities that were even lower) to .52 for the first 65 items of the full PONS. Across all 145 PONS items, 44 (30%) were answered correctly by 90% or more of participants and many of the items showed negative or low item-total correlations. Second, it should be noted that the PONS forms were not equivalent. As can be seen in Table 6, the 80-item form was more difficult than the 65-item form when used as either a pre-test or a post-test. The relationship depicted in Figure 3 shows that there were significant main effects of time (that is the average post-test score was higher than the average pre-test score), ($F(1,53) = 5.47$, $p = .023$) and test form (that is, the average score for the Face and Body and Vocal Expressions was higher than the average score for the full PONS) ($F(1,53) = 11,162.19$, $p < .000$) as well as a significant interaction ($F(1,53) = 158.99$, $p < .000$). This pattern of results suggests that regardless of form, mean post-test scores were higher than mean pre-test scores; however, mean test scores were also higher on the 65-item form regardless of when it was administered, and there was a significant interaction between test form and time. The interaction shows that those who took the 80-item form as the pre-test showed improved scores on the 65-item post-test, while those who took the 65-item form as the pre-test actually performed more poorly on the 80-item post-test.

Because of these findings and the negative reactions of the students to this test, use of the PONS was discontinued during the final data collection sessions.

Figure 3. Interaction of PONS Forms



Note: Group A received the 65-item form as the pre-test and the 80-item form as the post-test, and Group B received the 80-item form as the pre-test and the 65-item form as the post-test.

Next, we examined whether the training reduced discrepancies between the rating sources on question 2 of the rating checklist ("Which of the following arguments or influence tactics did the influencer use during the interaction?"). Our definition of social awareness emphasizes the accuracy of one's social perceptions, where accuracy is operationally defined as a shared view of the interaction. Therefore, the extent that the discrepancy between the rating sources is reduced as a function of the training provides another answer to the first research question.

On question 2 raters (i.e., influencers, targets, and observers) had the opportunity to indicate whether the influencer used a particular influence attempt and whether the target's reaction to that influence attempt was positive, neutral, or negative. We first coded these rating such that ratings of "positive" received one point, ratings of "neutral" received two points, and ratings of "negative" received three points.

We then calculated two indices of rater agreement. The first index provides a conservative measure of agreement. For the first index, agreement had to be exact; if the two sources provided different ratings, this index would result in a discrepancy. For example, if the target rated his or her reaction to an influence attempt as positive and the influencer rated the

target's reaction as neutral, this index would record a discrepancy. The second index is based on a less conservative operationalization of agreement. Here, disagreement only occurred if one rater viewed the target's reaction as positive and the other viewed it as negative. For example, the target must provide a positive (or negative) rating of his or her reaction to an influence attempt and the influencer must provide the converse (i.e., negative or positive) rating to produce a discrepancy. Table 7 provides descriptive statistics for the ratings from each source.

Table 7. Descriptive Statistics for Observational Checklist, Question 2

Source	Pre-test			Post-test		
	M	*SD*	*n*	*M*	*SD*	*n*
First Index (More Conservative)						
Influencer-Target	0.49	0.26	68	0.49	0.30	64
Influencer-Observer	0.48	0.30	47	0.46	0.33	47
Second Index (Less Conservative)						
Influencer-Target	0.92	0.16	68	0.94	0.16	64
Influencer-Observer	0.98	0.08	47	0.98	0.09	47

To examine whether rating agreement improved after the training, we compared pre- and post-test scores on the question 2 by conducting a repeated-measures analysis of variance where time (pre versus post) served as the within-subject factor. For the comparison of influencer and target agreement, the differences were not significant for either the first index, $F(1, 61) = .002$, $p = .968$ or the second index, $F(1, 61) = 1.09$, $p = .301$. A similar pattern emerged for the comparison of influencer and observer agreement $F(1, 46) = .042$, $p = .839$ for the first index and $F(1, 46) = .001$, $p = .981$ for the second index[11]. These results suggest that the training did not improve agreement on the targets' reactions. This finding may have resulted from confounds between different forms and raters in the pre and post test condition and from participant difficulty in understanding the checklist directions. These findings are discussed in more detail below.

Finally, we examined whether the training improved the influencers' ability to adjust behavior in response to the targets' reactions. Here, we compared pre- and post-test scores on question 3 of the rating checklist ("How effective was the influencer in adjusting his or her behavior in response to the target's negative reactions?") by conducting a repeated-measures analysis of variance where time (pre versus post) served as the within-subject factor. We conducted separate analyses for each rating source. Table 8 provides descriptive statistics for the ratings from each source. Influencer ratings did improve after training $F(1, 62) = 4.57$, $p = .004$. Target ratings produced a similar pattern, $F(1, 66) = 3.95$, $p = .013$, as did observer ratings, $F(1, 40) = 6.75$, $p = .013$.

[11] Observer ratings were not collected at Fort Hood.

Table 8. Descriptive Statistics for Observational Checklist, Question 3

Source	Pre-test			Post-test		
	M	*SD*	*n*	*M*	*SD*	*n*
Influencer	2.29	.92	63	1.90	.73	63
Target	2.04	.93	67	1.70	.63	67
Observer	2.37	.73	41	1.90	.97	41

Note: Responses to question 3 were coded such that lower scores indicate higher levels of effectiveness.

Improving Influence Skills Through Training

To address the second research question (Can one's ability to use social information to influence others be improved through training?), we conducted several additional analyses. Results of the level 1 analyses (see Table 5 above) provided some initial evidence that the participants believed the training improved their ability to influence. For example, participants indicated high levels of agreement with statements such as "This course helped me to more effectively influence others." and "Overall, I believe that what I learned in this course will help me to be a better leader."

To determine whether participants' perception of improvement corresponded to actual performance improvement, we calculated an influence performance scale by computing the average rating of responses to questions 1 and 4 through 8 on the rating checklist for each source. These questions are designed to measure the spectrum of influence behaviors and outcomes, including stating an influence goal, persuading the target to agree to the influencer's request, likelihood that the target would actually carry out the request, likelihood that the target would comply with future requests from the influencer, the extent to which the target understands the influencer's perspective as a result of the interaction, and extent to which the target is likely to change his or her perspective to be in line with the influencer's perspective. The scale score represents the average Likert-like ratings for these questions, where low scores indicated high influence success. Improvement from pre-test to post-test, therefore, is indicated by a decrease in mean score. We then compared pre- and post-test scores on the influence success scale by conducting a repeated-measures analysis of variance where time (pre versus post) served as the within-subject factor. Table 9 provides descriptive statistics for the ratings from each source.

Table 9. Descriptive Statistics for Influence Performance Scale

Source	Pre-test			Post-test		
	M	*SD*	*n*	*M*	*SD*	*n*
Influencer	2.48	.87	63	2.08	.77	63
Target	2.31	.86	67	1.99	.69	67
Observer	2.59	.86	53	2.31	.93	53

We conducted separate analyses for each rating source (influencers, targets, and observers). Influencer ratings improved after training, $F(1, 62) = 7.69$, $p = .007$. Target ratings also showed improvement, $F(1, 66) = 5.53$, $p = .022$. Observer ratings also showed improvement, but the differences were not significant, $F(1, 45) = 1.94$, $p = .171$.

Finally, we examined influencers' performance on each of the items comprising the influence performance scale by conducting a repeated-measures t-test where time (pre versus post) served as the within-subject factor. For each item, we conducted separate analyses for each rating source (influencers, targets, and observers) and the aggregate ratings across source. Table 10 presents the results.

Table 10. Descriptive Statistics for Influence Performance Items

	Aggregated Across Sources				
	Mean*	SD	*t*	df	*p***
1. How effective was the influencer in communicating his/her goals for the interaction?	0.35	0.72	4.07***	67	0.000
4. How quickly was the influencer able to persuade the target to agree to his/her request?	0.38	1.61	1.93	67	0.058
5. How likely would the target be to follow through and actually carry out the influencer's request?	0.48	1.40	2.80	67	0.007
6. How likely would the target be to comply with future requests from the influencer of a similar nature?	0.40	1.15	2.84	67	0.006
7. To what extent did the target understand the influencer's perspective as a result of the interaction?	0.11	0.69	1.34	67	0.185
8. How likely would the target be to change his or her perspective to be in line with the influencer's perspective?	0.49	0.99	4.07***	67	0.000

	Influencer Ratings Only				
	Mean*	SD	*T*	df	*p***
1. How effective was the influencer in communicating his/her goals for the interaction?	0.50	0.95	3.92***	55	0.000
4. How quickly was the influencer able to persuade the target to agree to his/her request?	0.44	1.83	1.93	62	0.058

5. How likely would the target be to follow through and actually carry out the influencer's request?	0.44	1.64	2.06	58	0.044
6. How likely would the target be to comply with future requests from the influencer of a similar nature?	0.32	1.44	1.71	58	0.092
7. To what extent did the target understand the influencer's perspective as a result of the interaction?	0.12	0.81	1.12	58	0.266
8. How likely would the target be to change his or her perspective to be in line with the influencer's perspective?	0.56	1.26	3.40***	58	0.001
Target Ratings Only					
	Mean*	SD	*T*	df	*p***
1. How effective was the influencer in communicating his/her goals for the interaction?	0.14	0.76	1.38	57	0.172
4. How quickly was the influencer able to persuade the target to agree to his/her request?	0.25	1.92	1.08	66	0.283
5. How likely would the target be to follow through and actually carry out the influencer's request?	0.41	1.56	2.13	65	0.037
6. How likely would the target be to comply with future requests from the influencer of a similar nature?	0.35	1.44	1.96	65	0.054
7. To what extent did the target understand the influencer's perspective as a result of the interaction?	0.08	0.83	0.74	64	0.460
8. How likely would the target be to change his or her perspective to be in line with the influencer's perspective?	0.64	1.33	3.87***	63	0.000
Observer Ratings Only					
	Mean*	SD	*T*	df	*p***
1. How effective was the influencer in communicating his/her goals for the interaction?	0.48	1.05	3.03	43	0.004
4. How quickly was the influencer able to persuade the target to agree to his/her request?	0.49	1.56	2.10	44	0.041
5. How likely would the target be to	0.46	2.01	1.54	45	0.130

follow through and actually carry out the influencer's request?					
6. How likely would the target be to comply with future requests from the influencer of a similar nature?	0.42	1.69	1.68	44	0.100
7. To what extent did the target understand the influencer's perspective as a result of the interaction?	0.09	1.15	0.51	45	0.611
8. How likely would the target be to change his or her perspective to be in line with the influencer's perspective?	0.22	1.61	0.93	44	0.359

* Mean scores reflect improvement from the pre-test to the post-test. **not corrected for family wise error. *** Significant at $p < .05$ when corrected for family wise error.

After correcting for family wise error, several of the items showed significant improvement from pre-test to post-test. In addition, the majority of the non-significant results are in the predicted direction, suggesting that significance would likely be obtained with a larger sample.

Perceived Usefulness of Training

Table 11 presents descriptive statistics for the perceived usefulness of each component of the course. The role play exercises and the discussion of and role play exercises involving influence tactics received the highest mean ratings, while the SETT and the social knowledge videos received the lowest (but still reasonably high) ratings. In addition, 87.1% of the participants indicated that the training was appropriately difficult for the intended audience and 81.4% indicated the length of the course was appropriate (7.1% indicated it was too short and 11.3% indicated it was too long).

Table 11. Perceived Usefulness of Training

Evaluation Item	Mean	SD
Pre-test role play and feedback	4.01	0.85
Overview of social awareness and influence model	3.90	0.82
Subtle Expressions Training Tool (SETT)	3.46	1.24
Influence tactics lecture and discussion	4.13	0.78
Influence tactics role play exercise	4.32	0.76
Social Knowledge videos	3.74	1.02
Post-test role play exercise	4.38	0.91

Note: *N*=72. Ratings were made on the extent to which each part of the course was perceived as useful on following scale: 1 =Not at all, 2 = Slight extent, 3 = Moderate extent, 4 = Great extent, 5 = Very great extent.

Discussion

The purpose of this research was to develop and document a model of social awareness and influence based upon an analysis of relevant research, to propose training concepts to improve leaders' social awareness and influence skills, and to pilot test the concepts. Consequently, after reviewing relevant research we developed a model of social awareness and influence and identified the factors that may impact the model. The results of an expert rating task revealed that experience (both as a leader and with the target), knowledge of non-verbal behavior and cultural norms, communication/persuasion skills, political skills, social intelligence, metacognition, and self-awareness were the factors that were most likely to have a high impact on the social awareness and influence process and that could potentially be improved through training. Based on these findings we identified several training concepts to address in the pilot: knowledge of the social awareness and influence process, knowledge of/skill in reading verbal and non-verbal cues of others, and knowledge of/skill in using influence tactics. Using a combination of commercially available tools and customized content, we developed and pilot tested a six-hour social awareness and influence training program with 72 officers and NCOs.

The pilot test served a dual purpose: (1) to test the various training concepts to determine their suitability for ongoing use and (2) to make some initial determinations about whether social awareness and influence skills could be improved through training. Evaluation data were collected at two levels to assess the effectiveness of the training: participant reactions (level 1) and acquisition of new knowledge and skills (level 2). The level 1 evaluation was conducted using a survey administered at the end of each training session. A pre/post test design was used to conduct the level 2 evaluation – participants were assessed both before and after the training on their ability to read verbal and non-verbal cues and on adjusting their own behavior to more effectively influence others.

Results of the participant reactions questionnaire indicated that the training program was well received by the target audience. Participants indicated that the role-plays and instruction on influence tactics were the most useful components of the course. Results of the pre-post tests indicated that training was successful in helping participants improve their skills in the following areas:

- Clearly communicating an influence goal,
- Adjusting behavior in response to a target's reactions, and
- Influencing others for compliance and commitment.

It is not clear whether the training resulted in improved ability to read verbal and nonverbal cues because measures of this skill did not appear to work as expected. Although pre- and post-test results of PONS scores were significantly different, the PONS showed poor psychometric properties, and there was a strong interaction of form by condition such that individuals who took the more difficult form actually scored worse in the post-test than the pre-test. Therefore, the two forms of the PONS were not equivalent. Moreover, the observational measure question that we designed to assess this skill also did not reveal any significant differences between pre- and post-test scores.

Strengths and Implications for Research and Training

The results of this research provide three significant contributions. First, based on a review of the literature, we developed a viable model of in-the-moment social awareness and influence. This model provides a series of testable hypotheses and a framework for future research. Moreover, the model offers several testable hypotheses about factors that might impact the social awareness and influence process. These factors have implications for selection and training.

Second, this research provides support for the notion that social awareness and influence are skills that can be enhanced through training. Prior to undertaking this research, few if any studies examined the question of whether social awareness could be improved through training. The results of the pilot test indicate that training may potentially improve these skills in Army leaders. Therefore, the approach we took in the pilot appears to be a viable option for training Army leaders to be more socially aware and better influencers. In the current operational environment, these skills are critical. Moreover, these skills fit very well with the Army's increased emphasis on socially aware and adaptable leaders and overlap considerably with the competencies and metacompetencies defined in FM 6-22.

A third contribution of this research is the development of customized behavioral observation measures to evaluate role-play performance. The role-play methodology was useful both as a training tool and as an evaluation tool. Participants had positive reactions to the role-plays, based on the results of the participant reactions questionnaire. In addition, the role-play was instrumental in evaluating level 2 results. This finding is even more encouraging in light of the fact that the improvement occurred after a short training program (6 hours of instruction) and in a relatively small sample. Therefore, we would recommend that the role-play methodology and structured behavioral observation measures continue to be used as a training and evaluation tool.

Limitations

As with any research, there were a few limitations in our pilot test that merit consideration. First, the measures that we used to assess participants' ability to read verbal and nonverbal cues did not appear to work as anticipated. The shortened versions of the PONS showed inadequate psychometric properties. In addition, participants indicated frustration with the apparent age and poor quality of the sound and video used in the PONS. These limitations resulted in discontinuing the use of this instrument.

Aside from the PONS, we attempted to measure skill at reading verbal and nonverbal cues by comparing influencer perceptions of the target's reactions with reactions reported by both targets and observers. As described in the results section, there were no significant differences between pre- and post-test scores on this measure. In hindsight, there were a number of potential reasons for this non-significant difference. First, the pre- and post-tests involved different role-play scenarios, different targets, and different observers. Therefore, it is impossible to separate the effects of these variables—changes in scenarios, targets, or observational standards from pre-test to post-test may mask any true performance improvement.

Second, the facilitators observed that several of the participants appeared not to understand the instructions for this measure, and it is very likely that these people filled this section of the questionnaire out incorrectly. Finally, this measure was contingent in large part upon the participants accurately remembering what had transpired in the interaction and reporting these observations accurately. It is very likely that the demands of the role-play interaction on both the influencer and the target may have prevented a realistic recall of the situation and thus affected the results.

A second limitation was that the sample size and time constraints inherent in a pilot test necessarily limited our ability to test the full model. That is, because this was an initial pilot test, we were unable to measure other factors that may impact trainability or the social awareness/influence process itself (e.g., personality factors, amount of previous leadership experience). While our initial results have been encouraging thus far, more research is needed to more fully test the model and the factors hypothesized to affect the social awareness and influence process.

A final limitation concerns the inherent difficulties in determining whether improvement in social awareness leads to improvement in influence outcomes. Although the role play questionnaire was designed to assess these aspects separately, the limited number of observers available made it difficult to collect standardized ratings. Moreover, the "targets" in the role plays varied widely in their ability to successfully execute the target role. Having more trained observers and targets available would provide a more reliable source of measurement. A more complete test of the model with additional measurement methods might help to establish the linkage between social awareness and influence.

Recommendations and Future Research Needs

Despite the above limitations, the initial results from this research suggest future research would provide several benefits to the Army. Specifically, further research is warranted on:

- A more complete test of the model, which would entail larger samples and enhanced measures
- The impact of various factors on the social awareness and influence process, such as self-awareness, personality, and leadership experience, which would entail identifying or developing measures of these attributes
- Identification of the specific aspects of the social awareness and influence process that may be more amenable to training than others, which may potentially entail a longer training program and additional measures

In addition to the need for further research, we provide several short and long term recommendations for enhancing the training. Based on lessons learned from pilot, we have identified several small changes that could be made in the short-term to enhance the training with minimal effort, including:

- Eliminate the use of the PONS as it provides no training value and little measurement value

- Use the time gained by eliminating the PONS for more in-depth role plays (e.g., more complex scenarios) and additional time on influence tactics and practices (note these were the most popular and appeared to have the most value for training)
- Revise observational measure for reading verbal and nonverbal cues, perhaps to include the use of a structured interview protocol by trained observers to assess the extent to which influencers accurately read the target's reaction
- Conduct more extensive validation effort once these changes are made and produce training materials that could be used by Army instructors to teach this course on an ongoing basis
- Improve role play instructions, particularly for targets, to include additional practice time or other methods to ensure targets understand the instructions and perform in a manner that is consistent with the intentions of the role plays.

Depending on the outcome of these short-term enhancements, long-term enhancements to the program might include the following:

- Create Army-specific training videos of influence interactions, which would be useful for behavioral modeling and a more direct measure of one's ability to read verbal and non-verbal cues
- Modify the training to be applicable to other audiences (e.g., more senior leaders, younger Soldiers that are transitioning into leadership roles)
- Extend the length of the training course to allow more in-depth discussions, more feedback, and more time for each exercise
- Videotape student role-plays to enhance self-awareness and allow for more in-depth feedback
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Summary

The current pressures of the operational environment and the realities and challenges associated with today's Soldiers have highlighted the need for Army leaders who are effective at influencing and motivating others. A key component of a leader's ability to influence is the extent to which he or she is socially aware and interpersonally adaptive. That is, a leader must understand how his or her behavior appears to others and how, in turn, others interpret and react to the behavior. Moreover, if the target's reaction is unfavorable (e.g., resistance or non-compliance), the leader must then adjust his or her behavior in-the-moment of the influence attempt to achieve a more positive outcome.

To better understand the social awareness process and its relationships to self-awareness, self-regulation, and influence, PDRI and Caliber have undertaken research to model these relationships and develop training concepts to increase leaders' skills in these areas. This report provides a starting place for this research. In it, we provide our conclusions from the relevant literature, we present a model of the social awareness process, we describe the factors or moderators that affect this process, and we describe the development and pilot testing of a training intervention to improve leadership performance throughout this process. In doing so, our hope is that we have laid the groundwork for the design of a useful training intervention that will enhance the skills and overall readiness of U.S. Army leaders.

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Appendix A: Taxonomy of Facial, Verbal, and Posture Reactions

Self-reported Mood	**Behaviors**		
	Facial Expression	**Verbal**	**Posture (body language)**
High Activation • Aroused • Astonished • Stimulated • Surprised • Active • Intense	• A lot of eye contact • Pupil dilation • Open mouth • Arched eyebrows • Jaw drop • Raised upper eyelid • Eyes widened	• Rapid pace • Varied inflection • Incredulous tone	• Poised for action • Startled • Restless
Activated Pleasant • Euphoric • Lively • Enthusiastic • Excited • Peppy • Elated	• Smile with teeth showing • Arched eyebrows • A lot of eye contact	• Hard laughter high pitch • Rapid pace • Loud volume • Slightly breathless • Talking a lot • Animated intonation (rhythmic pattern)	• Exaggerated hand gestures • Leaning forward • Constant body movement • Orienting toward group members • More physical contact
Pleasant • Happy • Delighted • Glad • Cheerful • Pleased • Warmhearted	• Slightly raised eyebrows • Closed lip smile (grin) • Eyes scan stimuli • Tightening of eyelids	• Varied inflection • Regular pace • Clearly audible volume	• Hands are active during speech • Head tilted toward stimuli • Body poised to include group members
Unactivated pleasant • Calm • Relaxed • At rest • Serene • Content • At ease	• Mouth may be turned slightly upwards • Little facial movement	• Soft but audible volume • Some inflection in tone or pitch • Regular pace	• Relaxed but engaged orientation toward group members • Little movement in limbs or torso
Low activation • Quiet tranquil • Still • Inactive	• Expressionless • Little eye contact • Closed mouth	• Whispering volume • Monotone • Slow pace	• Slow movements • Reclined position • Immobile •

Self-reported Mood	Behaviors		
	Facial Expression	**Verbal**	**Posture (body language)**
• Idle • Passive		• Delayed responses • Infrequent speech	
Unactivated unpleasant • Tired • Dull • Drowsy • Sluggish • Bored • Droopy	• Excessive blinking • Droopy eyes (partially closed) • Yawning • Fixed stare away from group members • Almost no eye contact • Dropping of upper eyelid	• Monotone • Few vocalizations • Mumbling • Low volume • Low pitch • Delayed responses	• Slouching • Orienting away from group (withdrawn • Motionless • Leaning chin on hand • Hands inactive during speech • Rubbing eyes • Shying away from stimuli • No physical contact
Unpleasant • Unhappy • Miserable • Grouchy • Sad • Gloomy • Blue	• Frown • Eyes avoid stimuli • Blank stare • Inner corners of eyebrows raised, eyebrows drawn together • Corner of lips pulled down • Lower lip pushed up • Corner of lips tightened and pressed	• Soft volume • Slow pace • Monotone	• Head tilted downward • Resting head on hands • Body poised to exclude group members
Activated unpleasant • Distressed • Anxious • Annoyed • Fearful • Nervous • Jittery	• Eyebrows lowered, chin raised, mouth closed • Sporadic eye contact • Sneering • Flushed face • “Nervous smile” • Clenched teeth • Lips stretched	• Stuttering • Rapid speech • Short of breath • Uneven pitch (voice “cracks”) • Uneven volume	• Closed fists • Hand tremors • Poised for action • Nervous habits (rocking, chewing fingernails)

Self-reported Mood	Behaviors		
	Facial Expression	**Verbal**	**Posture (body language)**
	horizontally • Eyebrows raised and drawn together, upper eyelid raised		
High Activation • Disgust • Angry • Contempt	• Nose wrinkled • Upper lip raised, lower lip protruding • Eyebrows lowered and drawn together, lower eyelids tightened • Eyebrows lowered, upper eyelids raised • Jaw thrust forward • Unilateral upper eyelid raise • Asymmetrical lip corner tightening • Flushed face	• Many harmonics • Fast tempo • High pitch level	• Clenched fist • Poised for action • Perspiration • Tensed muscles

Note: Adapted from Bartel and Saavedra (2000).

Appendix B: Commercially Available Training/Testing Materials

Product Name	Micro Expression Training Tools (METT)/ Subtle Expression Training Tools (SETT) Hybrid. Individual or group versions available. (Produced by Dr. Paul Ekman and available at www.paulekman.com).
Description	The METT/SETT is a CD-ROM consisting of two types of training for identifying facial expressions and their corresponding emotion (sad, angry, fear, disgust, contempt, happy, surprise). The METT focuses on very brief (1/25th of a second) micro expressions of concealed emotion and the SETT trains identification of the subtlest signs of when an emotion is first beginning in another person.

Product Name	The Diagnostic Analysis of Nonverbal Accuracy-Adult Facial Expressions (DANVA2-AF; Nowicki & Carton, 1993).
Description	The DANVA2-AF consists of 24 photographs of an equal number of happy, sad, angry, and fearful facial expressions of high and low intensities. The test evaluates the participant's ability to identify the correct emotion with the facial expression.

Product Name	The Diagnostic Analysis of Nonverbal Accuracy-Adult Paralanguage Test (DANVA2-AP; Baum & Nowicki, 1997).
Description	The DANVA2-AP consists of 24 spoken sentences by different voices (each voice reads the same sentence) of an equal number of happy, sad, angry, and fearful facial expressions of high and low intensities. The test evaluates the participant's ability to identify the correct emotion with the voice being spoken.

Product Name	The Diagnostic Analysis of Nonverbal Accuracy-Adult Posture Test (DANVA2-POS; Pitterman & Nowicki, 2004).
Description	The DANVA2-POS consists of 40 photographs of an equal number of happy, sad, angry, and fearful emotions of high and low intensities in both standing and seated postures. Contained within the 40 photographs are 16 neutral photographs. The test evaluates the participant's ability to identify the correct emotion with the posture.
Product Name	The Profile of Nonverbal Sensitivity (PONS; Rosenthal, Hall, Dimatteo, & Rogers, 1979).
Description	The full-length version of the test consists of 220 two-second audio clips, video clips, or both. The PONS is used to identify the accuracy with which people interpret nonverbal cues from brief interpersonal scenarios. There is also a short version of the test, which consists of only 40 items of only the face and body. An additional short version of only the audio portion is available which also consists of 40 items.
Product Name	The Interpersonal Perception Task (IPT; Constanzo & Archer, 1989).
Description	The test contains 30 brief scenes, each 30 to 60 seconds in length. Each scene is paired with a question that has two or three possible answers. The viewer watches the scene and then is asked to choose one of the multiple-choice answers that best describe what is happening in a scene. There are six different "scene types": status, intimacy, kinship, competition, and deception. For example, in one of the scenes a woman tells two very different versions of her childhood; the viewer is asked to identify which version is a lie. The viewer makes their judgment based on verbal and nonverbal communication. There are objective answers for each scene and the behavior shown in the scenes contain spontaneous, naturalistic interaction.

Product Name	The Human Voice: Exploring Vocal Paralanguage (Produced by Dane Archer and available at www.berkeleymedia.com).
Description	The video examines "clues" that are contained in vocal paralanguage. The "clues" presented help people to identify an individual's biography and background, identity, standard or nonstandard speech, regional and national accents, emotions, and true feelings. This is done through a series of examples where a person is blindfolded and has to guess the characteristics of an individual speaking to them. The voice is the only clue. Afterwards, there is a discussion based on the individual's assessment of the voice.
Product Name	The World of Differences: Understanding Cross-Cultural Communication (Produced by Dane Archer and available at www.berkeleymedia.com).
Description	The video examines 14 different facets, verbal and nonverbal, of cross-cultural misunderstanding. The video interviews individuals from various cultures and who have lived in cultures other than their own. The people explain experiences involving differences in communication when being in a foreign culture. Some of the examples include differences in personal space, patterns of touch, etiquette and rituals, expression of emotions, ideas about food, gestures, courtship patterns, and parent-child relationships.
Product Name	Social Competence Inventory, Version 2 (Schneider, 2001).
Description	The Social Competence Inventory, Version 2 is a self-report measure of the broad social competence domain. It consists of a total of 368 items measuring 27 distinct facets of social competence. The items are rated on a Likert-type scale, ranging from *Definitely False* to *Definitely True*.
Product Name	Social Knowledge Test (Schneider & Johnson, 2005). (This instrument was developed in a study for ARI).
Description	The Social Knowledge Test is a video-based instrument that presents 20 social scenarios linked to Schneider and Johnson's (2005) social performance model. The examinees are required to identify, rather than select from a set of pre-specified response options, socially effective and ineffective behaviors and reasons for that categorization. Several of the vignettes include social influence scenarios. Research has supported the reliability and validity of the Social Knowledge Test for predicting on-the-job social performance (Schneider & Johnson, 2005).

Product Name	Social Performance Inventory (Schneider & Johnson, 2005). (This instrument was developed in a study for ARI).
Description	The Social Performance Inventory is a multi-source social performance measurement and feedback instrument. The instrument consists of 52 items measuring a variety of social skills, including social influence. Research has supported the reliability and validity of the Social Performance Inventory as a tool for gathering accurate performance ratings (Schneider & Johnson, 2005).