**U.S. Army Research Institute
for the Behavioral and Social Sciences**

Research Report 1932

Enhancing Perception in Ethical Decision Making: A Method to Address Ill-Defined Training Domains

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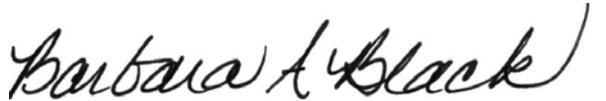
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14. ABSTRACT *(Maximum 200 words)*:
A mixed-method research approach was developed to address description, definition, and measurement in ill-defined training domains. A series of research efforts were conducted to demonstrate the approach and assess its viability. The ill-defined domain that served as the vehicle for this effort was the sense-making (perceptual and interpretive) process of the ethical decision making experience among United States Military Academy Cadets. Here, we empirically derived a thematic model of the ethical decision making experience based on a sample of written accounts. Using the thematic model, the Ethical Perceptions Scale (EPS) was developed to measure individual and group perceptual/interpretive preferences for ethical decision making with respect to military specific ethical dilemmas. A confirmatory factor analysis supported that the Ethical Perception Scale is measuring in accord with the thematic model. We also tested the reliability and construct validity of the scale; reliability was good and construct validity indicated that the scale measures in the correct conceptual domain. The model and scale are applicable to Professional Military Ethics training for Officer Cadets and newly commissioned junior officers to cover ROTC, OCS, and USMA. The research method demonstrated may be applied to address other ill-defined domains in Army, and other, research and training contexts.

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ENHANCING PERCEPTION IN ETHICAL DECISION MAKING: A METHOD TO ADDRESS ILL-DEFINED TRAINING DOMAINS

EXECUTIVE SUMMARY

Research Requirement:

An ill-defined domain is a field of understanding and/or practice that has no set procedure for determining whether a proposed solution to a problem within the domain is acceptable. To adaptively and effectively problem solve and learn in these these types of situations, Soldiers and junior Officers must have highly developed perceptual and interpretive skills. This research sought to identify and describe these skills for a specific ill-defined domain—ethical decision making experiences—and to develop a way to measure preferences for interpreting ethically relevant military situations. Although we focused on ethical decision making, the methodology developed can be applied to address other ill-defined domains in Army research and training.

Procedure:

The approach we proposed and demonstrated in this research is mixed-method, combining qualitative (linguistic/meaning-centered) and quantitative (numeric/measurement-centered) techniques. It begins by developing a thematic model of the meanings participants use to describe their concrete life experiences with respect to a particular ill-defined domain. Using this thematic model, a metric can be developed to assess individual and group preferences for particular ways of perceiving and interpreting when problem solving in military specific situations related to the ill-defined domain. In this report, we present the thematic model of the ethical decision making experience, describe how we developed the Ethical Perceptions Scale (EPS), and present the findings of research efforts conducted at the United States Military Academy (USMA) intended to test the reliability and validity of the thematic model and the EPS.

Findings:

The proposed mixed-method approach worked well in allowing us to identify, describe, define, and measure the relevant characteristics of the ethical decision making experience. On the basis of $N=88$ USMA Cadets' written accounts of life experiences of ethical decision making, we developed a thematic model to describe the common meanings they used to make sense of and describe their experiences. The thematic model is composed of six component parts: a ground/context and five core themes.

Based on the thematic model, the EPS was developed to measure individual and group preferences for interpreting military specific scenarios as the scenarios are evaluated and resolved with respect to the ethical dilemmas elicited by the scenarios. The EPS was found to have excellent reliability overall in measuring the Ethical Sensitivity construct (Cronbach's α between .80 and .87), and had good to very good reliability for measuring at the level of thematic constructs (Cronbach's α between .69 and .87), allowing us to identify perceptual/interpretive preferences. Overall, the $N=99$ USMA Cadets who participated in the reliability analysis

focused, in order of salience, on (1) Taking Responsibility, (2) Potential Consequences of Actions, (3) True Right/Wrong beliefs, (4) Taking Charge, and (5) Consistency & Conviction.

Additional data were then collected with a separate sample of $N=98$ USMA Cadets to assess how well the EPS measurement model was capturing the meanings specified by the thematic model as well as how the EPS correlates with existing, validated instruments that are currently used in research and training contexts related to the moral/ethical domain. The Confirmatory Factor Analysis ($N=181$; combining the $N=99$ Cadets in the first sample with the $N=98$ Cadets in the second sample) indicated a good fit between the thematic model and the EPS measurement model, requiring a reduction in complexity of only three direct measures and none of the latent constructs. When EPS was compared to the Defining Issues Test (DIT-2; Rest, Thoma, Narvaez, & Bebeau, 1997; Bebeau & Thoma, 2003) and the Integrity Scale (Schlenker, Miller, & Johnson, 2009), the correlations indicated that there were identifiable associations between the constructs, indicating overlap in the phenomena being measured by the constructs. This was particularly true between the Integrity Scale and the EPS. The DIT-2 had a very low reliability for this sample, indicating high measurement error. Because of this problem, relevant patterns of association between the EPS and DIT-2 may have been diminished. There were still statistically significant correlations present, however, to indicate conceptual overlap between the constructs being measured by the EPS and the DIT-2.

Overall, the findings indicate that the mixed-method approach is effective for addressing ill-defined domains in Army research and training. Other areas that may benefit from applications of this technique include transfer of training, adaptability, and/or the outcomes specified by Outcomes Based Training initiatives.

Utilization and Dissemination of Findings:

Preliminary findings have been shared with the Simon Center for the Professional Military Ethic at the United States Military Academy and have been presented at the Association for Psychological Science Annual Conference in Boston, MA, 26-31 June 2010.

In addition, the thematic model and metric were used in a training experiment in the USMA Negotiation Course (with West Point Negotiation Project assistant professor MAJ Aram Donigian serving as the trainer). This training was intended to enhance the ethical awareness of upper-level Cadets for recognizing, interpreting, and addressing ethical dilemmas that emerged during the negotiation scenarios role played in the class. The results of this effort indicated a good effect for the training and will be presented in a forthcoming ARI report.

ENHANCING PERCEPTION IN ETHICAL DECISION MAKING: A METHOD TO ADDRESS ILL-DEFINED TRAINING DOMAINS

CONTENTS

LIST OF TABLES

CONTENTS (continued)

CONTENTS (continued)

LIST OF FIGURES

Enhancing Perception in Ethical Decision Making: A Method to Address Ill-Defined Training Domains

Introduction

"All learning is an attempt on the part of the learner to make sense of the world" (Duffy & Raymer, 2010). Much of what a person learns in a professional context comes by way of making sense of and solving complex, real world problems. Most of these problems emerge because of the need to make practical decisions in ill-defined domains, meaning that the problems being addressed relate to a field of understanding and/or practice that has no agreed upon procedure for determining whether a proposed solution to a problem is acceptable (Lynch, Ashley, Alevan, & Pinkwart, 2006). Problem solving in such a domain is highly contingent on the way in which a problem solver interprets the relevant characteristics of his or her situation (Minsky, 1995). Problem solvers must be sensitive perceivers and clear thinkers in order to reach a viable solution and justify that solution (Sandage, Cook, Hill, Strawn, & Reimer, 2008; Duffy & Raymer, 2010).

How a problem solver perceives and interprets the characteristics of the problem situation (or problem space) will influence the solution he or she provides (Gadamer, 1960; Lynch et al., 2006). The process of making sense of novel real world problems, developing solutions to those problems, discussing those solutions with others, and testing and evaluating those solutions is what enables substantive learning. Even so, the research literature lacks a concise method for describing and measuring perceptual and interpretive processes as they apply to sense making and problem solving in specific ill-defined domains (cf. Sieck, Klein, Peluso, Smith, & Harris-Thompson, 2007). Here, we addressed this issue by developing a mixed method approach to address perception and interpretation of ill-defined domains in Army research and training.

One such ill-defined domain is ethical decision making. In the ethical decision making situation, a problem/dilemma may be perceived and interpreted in many ways and likewise may elicit many viable solutions. Ethical dilemmas require a problem solver to draw on previous experiences and learning, on the advice and understanding of others, applying these in novel ways to reach a viable solution. To understand better how people make ethical decisions, we need to understand the sense making process they engage in when working toward a solution to an identified problem. Using a mixed-method approach, we empirically derived a thematic model of ethical perception, and, drawing on the model, we developed the Ethical Perceptions Scale (EPS) to measure the interpretive tendencies of decision makers engaged in military specific ethical decision making.

While we dealt with ethical decision making in particular, researchers may apply the techniques we describe, demonstrate, and discuss to other ill-defined domains concerning problems related to perception, interpretation, and/or metacognition. These techniques may enable investigators to study perceptual and interpretive phenomena that are relevant to the sense-making and metacognitive processes that support individual and/or group problem solving in ill-defined domains. In addition, the tangible products of this effort—a thematic model and the EPS metric—may be applied in Army Professional Military Ethics training contexts to facilitate the ongoing dialogue between trainers and trainees as well as to provide targeted

feedback to trainees concerning the sense-making and metacognitive strategies they use when making ethical decisions in specific types of situations.

The Problem: Describing and Measuring Ill-Defined Domains

An ill-defined domain has great potential to grow as a field of practice and/or understanding. This potential derives from the fact that many of its relevant concepts and principles are still in the process of being identified, described, and defined. Measurement tools are not yet sufficiently developed to assess its relevant constructs. Even absent a clear set of concepts, principles, and measurements, researchers and trainers may recognize that the content of the ill-defined domain presents them with relevant questions and problems (Gogus, Koszalka, & Spector, 2009). Army training leaders may express a strong need to provide training to enhance a particular ill-defined skill and/or characteristic in Soldiers and Officers. For Army researchers and trainers, the benefit is notable of being able to engage more directly the relevant content of an ill-defined domain, developing precision in the terminology and measurements used to address it.

An ill-defined domain can sometimes be addressed by standard scientific methods. This is a process that can move slowly, however, working indirectly through theory, hypothesis formation, experimentation, and inference. A more direct approach may be found by applying empirical qualitative methods as an initiating step in the scientific research process. That is, the research is mixed method, combining both qualitative (meaning-centered) and quantitative (measurement-centered) approaches. Qualitative methods, when executed carefully and rigorously, may bring definition to the meaning of an ill-defined domain, allowing it to be described and measured. This allows the process of inferential science to push forward and opens the possibility for systematic training and assessment in what had formerly been an ambiguous and complex domain of practice and understanding.

Most ill-defined domains do not have a clear-cut measurement criterion. When working in an ill-defined domain it can be unclear where to start exploring, how to establish plans for research and training, or even to define what counts as a viable outcome (Minsky, 1995; Lynch et al., 2006). With no apparent scientific theory to work with, hypothesis testing can amount to highly technical supposition. Researchers and trainers can move in any number of directions and it can take a long time, and many false starts, to figure out what is relevant and viable when using only that approach.

What is needed to complement the scientific approach is a rigorous empirical method that allows researchers and trainers to focus in a systematic way on identifying, describing, defining, and measuring the relevant concepts and principles that belong to an ill-defined domain. This in turn will diminish the inherent complexity and ambiguity that the domain has initially presented. Qualitative techniques are readily applicable to narrow the field of possibility. A mixed method approach that is focused both on sense-making processes and on measurement may help to determine whether one set of problems and solutions is sufficient for a particular ill-defined domain. A mixed method approach may allow scientific research in an ill-defined domain to move forward at an accelerated pace.

The Proposed Method and Test Case

The method begins by examining the structure of meanings present in a sample of accounts concerning individuals' relevant life experiences in the domain of interest. Participants are selected based on relevant experience and a willingness to share an account of it with the researcher and/or trainer (Thomas & Pollio, 2002). The required data are a collection of accounts—which can be written or verbal—in which participants recall and describe what they were aware of in experiences that they perceive to exemplify the ill-defined domain. This method begins with the recounted experiences of the focal training population (Pollio, Graves, & Arfken, 2005). Using this approach, a meaning-centered model can be developed to guide subsequent measurement, theory development, and hypothesis testing. The research approach operates by way of careful description first, and then follows with applications of the techniques of inferential science, at varying levels of complexity.

By using this approach, one does not initially develop a theory based on the philosophical or the scientific literature; those who have had the relevant experience are given the authority to define what it means to them rather than have an external theory imposed on their experience. The objective for the researcher, then, is to identify the consistent meanings that participants use to make sense of and communicate about what they perceived to be domain relevant experiences (Ihde, 1987). From their accounts, a thematic model is developed to describe how the ill-defined domain is experienced in terms of consistent meanings ('themes') exemplified across the set of accounts (Boyatzis, 1998; Pollio, Graves, & Arfken, 2005). Following the development of a model, it becomes possible to identify the relevant concepts and principles of the domain and to develop measures to address the central concepts and principles in subsequent experimental research and training. The concepts and principles remain close to the experience of the target training population and provide trainers with terminology and tools appropriate to addressing issues at more general and/or detailed conceptual levels with trainees.

The research approach begins by supposing nothing about the domain of interest, except a few basic classifications and definitions, avoiding the application of a preexisting theoretical model. It is mixed-method, combining both qualitative (meaning-focused) and quantitative (measurement-focused) analyses (cf. Lincoln & Guba, 2000, for a theoretical discussion of relationship between qualitative and quantitative approaches to research). The method is intended to focus on how experiences within an ill-defined domain were made meaningful by those who have had the relevant experience(s), and then to measure the perceptual/interpretive preferences (i.e., the perspectives) that support sense-making, problem-solving, and decision-making in situations relevant to the domain.

Our test case for this method was the first-person experience of ethical decision making, an exemplar ill-defined domain. In particular, we addressed how United States Military Academy Cadets made sense of and described ethical decisions they had made in their everyday lives. We were interested in their perceptual/interpretive process and how their perceptual preferences may carry over into military specific ethical decision making situations. This setting provided an excellent venue for testing our proposed approach. A primary reason is that the USMA engages Cadets in a four-year course of study to prepare them to serve as Army leaders, who must be able to make legal and ethically justifiable decisions and engage in ethical actions in situations that are

often unpredictable, ambiguous, and complex. A focus on Professional Military Ethics permeates the USMA curriculum.

We have chosen to specify the ill-defined domain as ethical decision making experiences and as ethical perception, focusing on the term 'ethical' rather than 'moral'. In the scientific literature, however, the distinction between 'ethics' and 'morality' can be fuzzy (Lincoln & Holmes, 2010). In a traditional philosophical use of the terms, 'morality' concerns what people do, and 'ethics' concerns how they justify what they do. Morality refers to the normal actions and practices of an individual or a group of people. Ethics refers to how an individual or group of individuals make sense of, explain, and justify their actions and practices. In the psychological literature on ethical decision making, the terms have been used interchangeably because the dilemma, the decision, the act, and the justification for the act are often closely interconnected in the human experience of deciding ethically.

Of the components of moral/ethical domain, described in the scientific literature (cf. O'Fallon & Butterfield, 2005), we are interested in identifying, describing, defining, and measuring those related to ethical sensitivity as it presents in the decision makers' experience. Ethical sensitivity is the perceptual and interpretive component of moral/ethical sense making, focusing on how decision makers pick up relevant cues from and come to an understanding of their situation. It is conceptually related to phenomena such as moral intensity, or the perceived salience of an ethically significant event (Sweeney & Costello, 2009).

Why Did We Focus on Professional Military Ethics?

Professional Military Ethics represents a complex training domain in terms of both its conceptual content and the ultimate goal of the training. Ethical sensitivity is highly relevant to Army training in Professional Military Ethics for Officer Cadets and Junior Officers[1] as well as for Initial Entry Training Soldiers[2]. The Army seeks to develop into military officers a select group of civilians who come from many different personal, religious, and philosophical backgrounds, and who may view problems/solutions within the ethical domain in many different, but equally reasonable, ways. This leads to a training situation that involves much dialogue between trainers and trainees as well as guided analysis and case studies. While many areas of the training domain are well articulated in terms of conceptual content (i.e., Army Values, the Uniform Code of Military Justice, Laws of Land Warfare, etc.), issues associated with how individuals interpret and make decisions in ethically salient situations remains ill-defined. We seek to provide a systematic way of defining and measuring the sense-making process present in ethical decision making situations in order to address this training objective directly, in support of the related objectives of developing moral character, moral reasoning, moral judgment, and moral motivation.

It is not just the Soldier or Officer that needs to be taken into account, however. The structure of the situations in which they will be asked to make decisions must be taken into account as well. Professional Military Ethics training is focused on assuring that U.S. Army Officers develop essential skills for making good ethical decisions in the current operational

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[1] cf. FM 6.22, Army Leadership: Competent, Confident, and Agile, Department of the Army, 2006
[2] cf. TRADOC Pamphlet 600-4, The Soldiers' Blue Book: The Guide for Initial Entry Training Soldiers; Headquarters Department of the Army, 2010

environment, an environment that is often unpredictable, ambiguous, and complex (Baran & Scott, 2010). A systematic approach to understanding how trainees make sense of ethical dilemmas and make decisions in these types of situations may facilitate Army trainers and trainees in meeting their shared training objectives. In this way, the Army can draw together the individual level interpretive processes with the conceptual content and requirements of training in Professional Military Ethics and decision making.

Some debate surrounds the issue of whether military organizations should only train their forces to follow the laws and rules essential to be effective in their duties (i.e., a functional view) or should they also focus on developing the moral character of the individuals who compose their force (i.e., an aspirational view) (Wolfendale, 2008). While it is a given that U.S. Army Officers should be familiar with, and follow, the laws and rules specific to their profession, Professional Military Ethics training in the U.S. Army concerns far more than just how to apply laws and rules. The U.S. Army's ethics training model is both functional and aspirational.

The aspirational component, as presented in the Army's training model, is significant for the personal and professional development of individual trainees. Training focused only on laws and rules would, as Challans (2007) has argued, prevent trainees from engaging with their leadership duties and expectations. Their professional role would come to be viewed as one executed by rote and not really lived. The role would lack the qualities of authentic leadership that Hannah and Sweeney (2007) have advocated: the fundamental quality being that an Army Officer and leader occupies his or her role in such a way that it is a fundamental part of their personal and professional identity. For this reason, the Army focuses on developing the moral character of its Officers, developing their intellectual abilities and their awareness of themselves as decision makers who, as representatives of the U.S. Army and the Nation, can influence events at a global level. An ethical decision in that context is never of slight consequence and cannot be one executed by rote. Ethical decisions must be the results of a careful evaluative and deliberative process as undertaken by self-aware decision makers.

Perspective, Perception, Decision, & Action

The stance a decision maker takes in developing a meaningful understanding of a problem situation is his or her perspective (Gadamer, 1960). Decision makers always have a perspective. That perspective is determined by the choices they make to attend to particular aspects of their situation. A decision maker could not make a decision without having already made these choices—whether made explicitly (consciously focusing on a particular subset of details) or implicitly (overlooking details that may turn out to be relevant). It is based on these choices that a perspective is developed. Sometimes a personal perspective can go unacknowledged, leading to an assumption that the way one experiences the problem is the way others experience the problem. It is easy to believe that the way we perceive things is just the way things are; our assumptions can linger unquestioned and undermine the decision making process.

In developing conscious awareness of our own decision making processes and honing our decision making skills, it is important to have taken the time to step back and consider the manner in which we can choose a perspective and how that perspective comes into play when

making a decision. Sometimes, a person may feel as if they are just responding to a situation, not really recognizing that he or she is in fact making an ethical decision. What is 'ethical' about the person's decision making process may be observed by another person. The observer may then point out to the decision maker the ethical implications of his or her decision. This is how moral norms develop within social groups (Berger & Luckmann, 1966). Understanding different perspectives and engaging in dialogue with others challenge the decision maker to perceive and think differently and to develop his or her decision making skills. The model we provide may help to facilitate this process of dialogue as it occurs in training, providing a common language, a set of concepts that can expand the possibilities readily available to decision makers when they are making sense of and discussing ethically relevant situations.

The stakes of the decisions we make may change given the challenges presented by others and by our situation. What does not change is the fact that you, I, or another person, have found the challenge, and our efforts to resolve it, personally meaningful. It is toward this meaning that this research is oriented. Here, we empirically describe, define, and develop a way to discuss and measure the perspective a person or a group takes when making sense of an ethical dilemma and deciding to do something about it.

Ethical Perception and Interpretation in Professional Military Ethics

If Professional Military Ethics training included a model of how ethical decision making situations are perceived and interpreted, from the perspective of individuals' personal experiences, this model could help trainees systematically make sense of their own experience, providing them a way to sort out the pieces of what they perceive, such that the benefit of their knowledge and their past experiences could be better integrated and available when making future decisions. In this research effort, we sought to develop such a model for use in Professional Military Ethics training settings such as those of the United States Military Academy (USMA), College/University Reserve Officer Training Corps (ROTC), and the Officer Candidate School (OCS).

We sought to provide conceptual and measurement tools that can be used to help trainees understand how they make sense of complex and unpredictable situations. While the legal and/or philosophical basis for a decision is perhaps the most important aspect of ethical decision making, it was not our purpose—nor, in a scientific role, our appropriate place—to enter into that dialogue directly. Our goal here is to provide tools to facilitate and support that dialogue as it arises between Army leaders/trainers and their trainees. Empirical research provides the model. The Army's leaders/trainers—its Officers and Non-Commissioned Officers—provide the knowledge, expertise, and depth of experience to articulate fully its meaning in dialogue with trainees.

Army leaders use a variety of activities and materials to prepare Officer trainees to make ethical decisions in situations that can be both extreme in danger and lacking in clarity. Many of these activities and materials are also used to develop the decision making abilities of enlisted Soldiers and Non-Commissioned Officers. What is common among these training situations is the need to establish a way to measure and to develop ethical awareness and reasoning skills (Hannah & Sweeney, 2007). In practice, leaders sometimes use examinations, testing knowledge

of the Uniform Code of Military Justice, concepts related to Rules of Engagement, Army Values, or the Soldiers' Creed. Other times, leaders use psychometric instruments, such as the Defining Issues Test (DIT-2; Rest, Thoma, Narvaez, & Bebeau, 1997; Bebeau & Thoma, 2003), to establish a baseline and track moral development. Finally, leaders rely on professional judgment and intuition to determine if a trainee understands and applies what Army Professional Military Ethics requires.

While these approaches are useful, each presents its own concerns. First, typical examinations measure factual knowledge. A score on a fact oriented test, however, does not allow the Army to determine how this knowledge may be applied to make sense of novel situations. Second, many psychometric assessments, such as DIT-2, use generic scenarios, predefine the dilemmas, predefine the responses, and assess how predefined rationales for courses of action are being evaluated. Psychometric instruments must often be interpreted carefully, modified, or specifically developed to address the types of decisions that Officers must make when training for combat and peacekeeping operations. Finally, professional judgment, while based on experience and expertise, may be inconsistent. Different leaders, with their different perspectives, will assess the same trainee in terms of different behaviors and qualities.

Given the interconnection between the moral and ethical domains in the behavioral and social scientific literature, researchers often rely on constructs related to attitudes, identities, and ideologies (cf. Schlenker, 2008; Schlenker, Miller, & Johnson, 2009), cognitive capabilities, such as moral judgment or moral reasoning (cf. Rest, 1994; Rest, Thoma, & Edwards, 1997), as well as emotional awareness and moral intuition (cf. Haidt, 2001). In Rest's (1994) four-component model of morality, he included components of moral sensitivity, moral judgment, moral motivation, and moral character. *Moral sensitivity* concerns how ethical situations are recognized and interpreted; *moral judgment* concerns how the rightness and wrongness of an action is determined; *moral motivation* concerns how moral values are prioritized; *moral character* concerns how traits such as courage or perseverance are defined and developed.

As in the behavioral and social sciences, the Army tends to emphasize the latter three components—moral judgment, moral motivation, moral character. Hannah and Sweeney (2007), however, have suggested an experientially and existentially oriented reframing of the traditional approach to moral development. They sharpen our focus on the significance of understanding Cadets' personal meaning-making process and how Cadets reflect on who they are at present and who they are becoming as Army Officers. The constructs of *moral complexity*, *moral agency*, and *moral efficacy* highlight the relative importance and the experience-near character of moral/ethical sensitivity (i.e., moral/ethical perception and interpretation) in the context of Army Professional Military Ethics training.

In a recent review of the literature, using Rest's (1994) four component view, O'Fallon and Butterfield (2005) found that only 7.3% of research findings related directly to moral sensitivity.[3] It would seem that a gap in Army training is mirroring a gap in scientific research.

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[3] While O'Fallon and Butterfield (2005) are describing 'sensitivity' in terms of 'moral sensitivity,' we use the term 'ethical sensitivity,' as we feel it more accurately captures the phenomenon in which we are interested. Conceptually, however, moral sensitivity, as it is discussed in the literature, and ethical sensitivity seem to describe essentially the same phenomenon.

One reason for this gap, they argue, is the complexity involved in operationally defining and consistently measuring this component. They quote Rest, describing moral sensitivity as "interpretation of the particular situation in terms of what actions (are) possible, who (including oneself) would be affected by each course of action, and how the interested parties would regard such effects on their welfare" (O'Fallon & Butterfield, 2005, pg. 3). If one were to set out to document all possible particular actions, actors, and interested parties, then defining it as a measurable construct would be impossible. There are other ways to define it—as a mid-level construct/model—and that was our purpose here.

In this research, we focused on defining and measuring ethical sensitivity. We view ethical sensitivity as the perceptual and interpretive component—the 'sense-making' component—of ethical decision making. We wanted to understand how the ethical decision making is experienced from the perspective of the decision maker. The character of this experience has not been described systematically, nor has any metric been developed so far that is oriented to measuring perceptual and interpretive styles as they are present in military specific ethical decision making situations. With such a model and a metric, the perceptual and interpretive component of ethical decision making may become trainable in a systematic way within Army Professional Military Ethics contexts.

We address the problem of describing, defining, and measuring how the experience of ethical decision making is made meaningful for individuals, with a focus on developing tools for training flexibility and adaptability in perceptual and interpretive styles. The research method that we describe may be used to address other similarly ill-defined domains.

There are six main sections to this report:

- First, we describe in terms of a thematic model the ethical decision making experience as it emerged across a set of accounts written by United States Military Academy Cadets.[4]

- Second, we relate how the Ethical Perceptions Scale (EPS) was developed based on this thematic model in order to measure perceptual preferences in response to military specific ethical dilemmas.

- Third, as a first-stage assessment of the EPS we present the overall results of a standard reliability analysis using Cronbach's coefficient α.

- Fourth, we extend the reliability assessment and use confirmatory factor analysis to test whether the EPS is measuring in accord with the thematic model. We use this procedure to determine what items to retain/remove as well as to test alternate models against the thematic model.

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[4] We specifically asked for everyday ethical decision making experiences and not for accounts concerning extraordinary situations that could implicate Cadets in violations of Uniform Code of Military Justice and/or the Cadet Honor Code. This enabled us to focus on the common and everyday characteristics of this type of decision making process.

- Fifth, we present the results of a construct validity analysis of the EPS in relation to two established measures of moral judgment and moral identity/ideology. Together, the analysis we present in the first five sections of the report establish the usability of the EPS for scientific and training purposes.

- Finally, we discuss how the thematic model and the EPS may be used in training contexts to help trainees become systematically aware of how they perceive and interpret ethical dilemmas as they work toward solutions and make decisions in their everyday personal and professional lives. In more general terms, we also discuss how this approach may be used to address other ill-defined domains in Army training.

A Thematic Model of Ethical Decision Making Experiences

Gibson (1966) argued that it is possible to arrive at a different conception of a phenomenon based on having perceived some new aspect of its stimulus characteristics, i.e., adopting a new perspective toward it. Further, it is possible for one person then to describe this different way of seeing to others and likewise to influence their perception. This is one of the fundamental functions of communication and how we, as a social group, come to make sense of the world (Berger & Luckmann, 1966). The common ground to enable dialogue about a particular type of experience, the base from which novel ideas can form and a good discussion can grow, is careful description. When a scientific question concerns the structure or meaning of a particular type of experience, a straightforward way to begin to answer it is to collect accounts of what the experience was like from participants who have had the experience. Then one needs to analyze these accounts carefully as if they were presented as a complete text, as one might read and interpret a novel (Pollio, Graves, & Arfken, 2005).

In this way, a group of researchers can identify the consistent meanings the participants used to make sense of and communicate about their experience in the complete set of accounts. What results from this approach is a model of the consistent meanings ('themes') that describe the parameters of the experience. The thematic model is expressed in the participants' words and is near to the experiences they described, existing between the level of the particulars and details of a single individual's account and the abstractions and generalities of a theoretical account. It is a mid-level model of the phenomenon. The model is intended to generalize to what an experience means and not to make a statement about its distribution in a population (i.e., its universality). When the essential features of a type of experience are described in this way, the description can serve as a basis for measurement, interpretation, and discussion. Perhaps the biggest benefit of such an approach is that the thematic model is rigorously and empirically derived based on participants' experiences; it is ecologically valid and has intuitive appeal because the concepts it works with remain fairly close to everyday experience.

Method

The research method used to develop our thematic model is based on procedures described in Pollio, Henley, and Thompson (1997), Thomas and Pollio (2001), and Pollio, Graves, and Arfken (2005). The support for this method can be found in Kohler (1947), Gadamer (1960; 1987), Merleau-Ponty (1962), Berger and Luckmann (1966), and Ihde (1987).

In this first phase of the effort, which focused on developing the thematic model, the research team asked 88 USMA Cadets to write accounts of specific life experiences of ethical decision making. The team analyzed these accounts, reading as an interpretive group, to develop a model describing the meanings Cadets used to make sense of and communicate about their experiences. The model describes meanings that were consistent across the sample of accounts, i.e., 'themes'. A thematic model does not detail any particular individual's experience. It summarizes what is common across the accounts that make this category of experience unique. In typical practice, additional accounts are read and interpreted until the readers note that no new meanings are emerging when additional accounts are read and interpreted. The sample of 88 accounts used here was sufficient to achieve this criterion, referred to as *thematic saturation* (Pollio, Graves, & Arfken, 2005).

Participants. All participants were first-year Cadets at the USMA at West Point, NY. Cadets who participated in this research were awarded extra credit in their PL100 courses. Table 1 describes the demographic characteristics of this group. The researchers affiliated with the USMA affirmed that age and gender characteristics are similar to what they have found in other research efforts.

Table 1
Demographic Characteristics of Cadets Participating in the Thematic Analysis

Demographic Characteristic	*N*	% of Total
Total (All First Year / "Plebes")	88	100
Gender		
Males	75	85
Females	13	15
Age (Years)		
18	22	25
19	50	58
20-23	15	17
Family Background		
Comes from Military Family	35	40
Comes from Military Academy Family	21	24
Personal Beliefs		
Is Religious and/or Spiritual	68	77
Has a Personal Moral Philosophy	68	77
Grew Up Familiar with Army Values	36	41

Procedure. Cadets met in a classroom in the Department of Behavioral Science and Leadership at the USMA. The researchers explained the goal of the investigation to the Cadets and then administered informed consent. Cadets were asked to complete a brief demographic questionnaire and to respond to the following request:

> *Instructions: We are interested in your personal experiences of ethical decision-making and what you consider to be important ethical issues and/or problems you have faced in your life. In order to help us better understand your experience of ethical decision-making please respond to the following questions.*
>
> *I. Think of three situations in which you made a decision concerning an ethical issue/problem. List these three situations in the space below. DO NOT list any situations that may implicate you in violations of the USMA honor code or the Uniform Code of Military Justice.[5]*
>
> *II. Pick one of the situations you listed above and describe in detail your personal experience in that situation. If you run out of space to write, we will provide you as many pages as you need to give a detailed description of your experience.*

The request was crafted to elicit accounts focused on the Cadets' life experiences, rather than on their personal theories, etc., concerning ethical decision making. It is important that a request of this type focus participants on describing very particular life experiences, so they do not lapse into describing their 'experiences' in general terms, providing a conceptual rather than a purely experiential account. The research technique requires experiential—or experience-focused—accounts. Three situations were asked for in the initial request so that participants might select the one they felt they could best write about. This initial request was intended both to gather data about situations of ethical decision making and to give the participants options concerning what experience they choose to describe.

The researchers collected 88 written accounts of a particular experience, and 264 enumerated situations. The accounts were, on average, 1 to 2 pages long. The data were transcribed, and all personally identifying information was removed. The hand-written accounts were then destroyed to ensure the participants' privacy. The transcription process for these accounts took approximately 32 hours.

An interpretive group process was used to develop a thematic model based on the accounts (cf. Pollio, Graves, & Arfken, 2005). The interpretive group was composed of seven readers: four research psychologists, two field-grade Army officers with graduate level education, and a psychology graduate student. It is important when forming an interpretive group that the group members are skilled readers and that at least one member has developed sufficient understanding of the approach to facilitate the process.

Each group member independently read the transcript containing the 88 accounts and identified what they saw as the central themes. Group members were asked to set aside any assumptions they might have about the topic area while reading and interpreting the accounts. The group then met to discuss their various interpretations and to identify what meanings were

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[5] This statement was included to accord with human subjects' privacy protections and appropriately to specify the types of decision making situations we were interested in researching.

consistent across the sample. Differences in interpretation were resolved with reference to the specific text of the accounts.

The key to the interpretive approach, on which the thematic model was developed, was to read the accounts as if they were an answer to a fundamental question about human experience, a meaning that can be shared between the readers and authors based on their common experiences in human life (cf. Gadamer, 1960; 1987). While the background experience of an author of a text may be vastly different from those of a reader, the reader can begin to develop an understanding of the accounts based on his or her own life experiences. The approach establishes a "common ground" for understanding to take place. Identifying the fundamental question gave the readers an inroad to be able to make sense of the similarities and differences between the meanings the accounts appeared to convey and how this meaning was related to the readers' beliefs, experiences, and understandings about similar issues.

The readers contributed to what the accounts came to mean based on their personal and shared experiences and based on their dialogues with each other about the meanings the accounts had presented to them. It is for this reason that our method required the multiple readers working as an interpretive group, a format of open dialogue between the readers, and an agreed upon way to resolve disagreements that remained faithful to the text of the Cadets' accounts. Here, disagreement among readers was resolved with reference to the specific text of the Cadets' accounts. The Cadets' words were given the ultimate authority as to the presence or absence of a theme, and how the meaning of the theme should be understood. To facilitate the interpretive phase of this research, the readers were given the following instructions, organized as steps in the interpretive process:

(1) Read the transcript in total. It is not important in the first reading to make specific notes about the participants' accounts. Focus on getting a feel for the way experiences are described in the total set of accounts, i.e., what types of experiences are discussed, how they are being discussed, etc. Begin to reflect on what the accounts bring up for you as a reader/interpreter in terms of your own experience in similar situations. Try to identify what experiences/understandings you are bringing to the interpretive situation; write some notes as you read so you can remember what sorts of ideas, etc., came up for you about your own experiences.

(2) Re-read each account and make notes on what stands out to you about each account. Make the accounts the focus of your reading; what seems important to the writer, etc.; what does he/she focus on when describing his/her experience? Again, be careful to stay aware of how your past experiences, assumptions, beliefs, etc., may come to influence your interpretation of what is described in the account—make an effort to sort out what is you and what is in the account.

(3) Read for common meanings across the accounts. Focus on reoccurring meanings rather than on occurrences of specific words, etc. Identify and note the meanings that you see as present across many accounts. Identify which of the meanings you believe are relevant and specific to the experience of ethical decision making. Both your past experiences and the experiences described in the accounts are important, but for now the accounts have the final word. Your interpretations of what something means need to be justified with reference to the specific words, sentences, and paragraphs in the accounts. At this stage, the closer you can get to identifying the possible ways to describe the experience using the participants' own words the better. Think of this in terms of the participants giving you permission to describe their

experience in a particular way. If they do not say it in the accounts, then they do not permit that interpretation.

(4) Note other interpretations of the text that come up for you. What sorts of ideas does reading the account/accounts foreground for you? What sorts of theories/ideas do you believe are relevant to the texts? In this stage, I'm asking you to do what I was asking you not to do in Stage 3. Ask yourself, what is the context/situation/ground that makes it possible for these meanings to have meaning for the participants? To help with the interpretive process: If there were one big question about human experience/life to which these accounts are an answer, what would that question be?

(5) Note interesting figurative language, anecdotes, and other things that may be useful for assessment and/or training development.

The analysis at this stage should require approximately three to four readings of the full transcript. The slowest reading will be in Stages 3 and 4. The interpretive process is iterative, so do not worry if you see things in one way at one point and then your understanding then develops and changes as a result of reading more of the accounts. That should happen.

Once all readers submitted their notated transcripts to the lead author, he developed a list of the common themes identified in their transcripts. This list was created based on the margin notes, circled and/or highlighted text, and other comments made by the readers. The interpretive group then met and discussed the list of themes, how the themes should be best labeled to articulate their meaning, and how the themes could be best assembled into a thematic model that was representative of the experiences described in the Cadets' accounts. When disputes arose, the group was asked to return to the text of the accounts in order to make their case for a particular interpretation. In this way, disagreements were resolved with reference to the specific text of the accounts. Developing the thematic model was iterative, continuing until the interpretive group agreed that the model adequately presented the meanings described in the Cadets' accounts.

Ethical Decision Making Situations

Before presenting the thematic model, it is important to consider the types of situations in which Cadets described their experiences of making ethical decisions. The accounts described experiences that took place in twelve types of situations. Most of the experiences described had occurred prior to Cadets entering the USMA. Table 2 describes these categories, the frequency and percent of the total for each category, and provides specific examples.

Table 2
Ethical Decision Making Situations Reported by Cadets

Category of Situation	*N*	% of Total	Example
Deciding Whether to Go Along with Peer Demands	45	17	Whether to go along with peers who are beginning to ostracize an individual
Correcting Another's Unethical Behavior	44	17	Calling out a friend for stealing; turning him in
Being Annoyed by Witnessed Unethical Behavior	38	14	Seeing people cheating on a test in high school and feeling frustrated because they were making higher grades in the class
Owning Up to Personal Mistakes	33	12	Telling parents about a car accident
Being Honest (Even When not in Best Interest)	17	6	Turning in high value lost items/money; telling a close friend that you don't want them to visit
Rethinking Political/Religious Worldview and Affiliations	15	6	Quitting a religious group because group leader's views were "too extreme"
Doing Something "Wrong" for the Right Reasons	14	5	Betraying a friend's confidence to get her help; being confrontational with a street gang to defend a stranger
Managing Relationships and Being Diplomatic	13	5	Stopping gifted kids from making fun of other kids; keeping promise to spend time with sister instead of going to team party with friends
Being Aware of Others' Shortcomings and Weaknesses	13	5	Whether to exploit a perceived weakness of a sports competitor
Helping Others	12	5	Taking a friend to hospital, getting in trouble for irresponsible behavior that caused injury
Setting a Good Example as a Role Model	9	3	Being fair as an umpire (even if preferring a particular team will win)
Protecting Self from Bad Influences	6	2	Avoiding smoking/drinking; staying engaged in productive activities (reading, sports, etc.) rather than goofing off and getting in trouble
Other	5	2	
Total Situations	264	100	

Note. What is described above are intended to give the reader examples of the types of situations in which the Cadets described having ethical decision making experiences.

Most common were ethical decision making situations that concerned whether to go along with peer demands, correcting another person's unethical behavior, feeling annoyed by witnessing unethical behaviors, and owning up to personal mistakes. The four most frequently occurring situations spoke to the social basis of ethical behavior, identifying concerns with how one interacts with and is influenced by others. The remaining situations included this socially oriented focus, but also presented issues that concerned personal beliefs, practices, and other understandings. Note that the statistics reported for the situations are calculated based on the three situations that each participant was asked to list. The reported percentages were calculated out of a total of *N*=264 situations.

The Thematic Model

A thematic model of an experience can be portrayed, at its most basic level, as a figure-ground relationship (Kohler, 1947). Accounts of life experiences in a particular domain have a meaningful structure for us that takes into account both the event as we experienced it and the context in which we recall it and describe it to others (Pollio, Graves, & Arfken, 2005). Figure 1 presents the thematic model for the experience of ethical decision making.
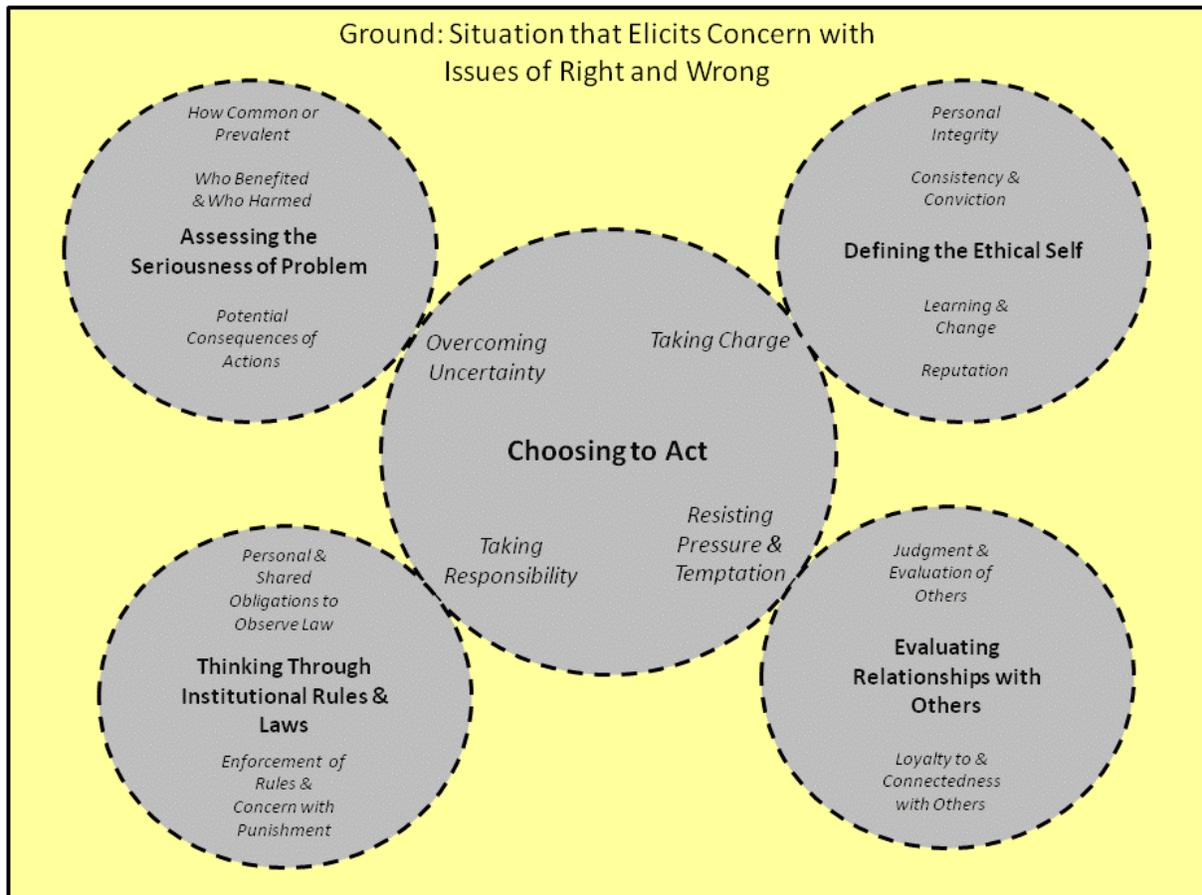
Figure 1. Thematic Model of the Central Meanings Expressed in Cadets' Ethical Decision Making Experiences

In general, a *Ground* is the context of the experience we are presently having or that we remember having. *Figures* are the meanings that were salient to us in that experience, as we recall the experience to think about it or to describe it to others. Others take what we have described and make sense of it based on their own experiences. It is this often unstructured dialogue that serves as the basis for the more systematic method we apply to make sense of ill-defined domains, and in particular, Cadets' experiences of ethical decision making. In the accounts provided by the Cadets, the ground for their ethical decision making experiences was a conflict they perceived between what they initially expected in the situation they described and what the situation had actually presented to them. This conflict elicited a system of meanings that focused on concerns with *right* and *wrong*. Their expectations were focused on what they

believed was *right*, and in the conflicting situation, on what they concretely perceived as *wrong*. The key characteristic of the situations described was that the Cadets became aware of issues of right and wrong, and this characteristic meaning framed the situation as an ethically relevant one for them. Five themes were found to be figural against this ground: (1) Choosing to Act, (2) Assessing the Seriousness of the Problem, (3) Defining the Ethical Self, (4) Evaluating Relationships with Others, and (5) Thinking Through Institutional Rules & Laws.

In the thematic model, each of the respective themes and its subthemes are depicted in the forms of circles that stand out from the ground, just as figures stand out to us in our experience. These circles are connected to each other to indicate the permeability of the meanings described. The themes in the thematic model are not orthogonal, but instead are oblique; they are interrelated in terms of their meaning and function in the decision making process. No single theme or subtheme dominates a particular Cadet's account. Instead, accounts describe experiences that exhibit a pattern of different meanings, much like the way different art critics can describe the same painting in very different ways. Each Cadet exhibits a pattern that is unique to him or her. These patterns, when taken together, become the thematic model, in the same way many different interpretations can come to define a particular painting (cf. Gadamer, 1960).

The Ground: A Situation that Elicits Concern with Issues of Right and Wrong

When faced with a situation that conflicted with what they had expected, Cadets focused on issues of right and wrong to make sense of what was happening. Their descriptions either tended to apply beliefs about right and wrong across situations or only to the specific situation described in the account, with the Cadet seeking a 'best' solution to the situation at hand. It would seem that Cadets' philosophical, political, and religious beliefs and affiliations were salient to how they determined what they perceived to be right and wrong. The following are some examples of the ground:

- It would have been easy to lie our way out of the situation, but *that wasn't right* (P46)[6].
- Perhaps *it was not the right thing to do* for me to give him a chance with my ultimatum (P12).
- I couldn't convince him that, even though it is legal, *it is unethical* (P67).
- Being a practicing Catholic…the *decision would have been simple* in theory…*you made the mistake, you cannot punish someone else for your mistake* (P86).

An ethical issue/problem makes salient for an individual his/her concern with issues of right and wrong, with a current concrete life experience presenting a challenge to preconceived understandings about how he/she and others should believe and behave. This is the context in which the ethical decision making experience is situated.

This is one key benefit of the type of training Cadets receive with respect to the Honor Code or, more generally, Army Values: when they learn those value systems, they learn what to expect from themselves and from others in their profession; they come to feel strongly about

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[6] The 'P' codes following each quote are Participant numbers. These anonymous codes were used to track the written accounts during the data analysis. They are used here to demonstrate that no particular participant is overly cited, and that the quotations presented represent the diversity of the sample.

how things *should* be (Hannah & Sweeney, 2007). The Honor Code, Army Values, etc., are acting directly on the ground/context for the decision making experience. When Cadets encounter a situation that contradicts those expectations, the decision then becomes one of either doing something about it, ignoring it, and/or changing one's beliefs. In this regard, the Cadets exhibited a strong preference for action, leading to the centrality of the first theme—Choosing to Act—in their accounts.

Theme 1: Choosing to Act

This theme concerns the choice the Cadets described making in terms of whether and how they would respond to what they have perceived to be an ethical issue/problem. Four subthemes describe the meaning of this theme: (1) Overcoming Uncertainty, (2) Resisting Pressure & Temptation, (3) Taking Responsibility, and (4) Taking Charge.

Subtheme 1.1: Overcoming Uncertainty. This subtheme concerns Cadets being aware of the quality of information they had on which to base a decision, and their experience of their choice as being one that is "evident" (P41) or of being "unsure what to do" (P80). Some examples:

- My dilemma *was not knowing* when to step in (P7).
- I let things unwind *to gather more data* (P9).

Subtheme 1.2: Resisting Pressure & Temptation. Cadets framed their choices in terms of the "easy way" and the "hard way" (P1). This theme describes Cadets' experience of resisting the "temptation to take the easy way out" in favor of what they perceived to be the more difficult, but ethically correct, option (P48). Some describe the experience as being "torn" between options (P10), or "a struggle" (P47) to choose the correct option, or as "a great test" (P30). Some examples:

- I did *feel pressure* that night….Unfortunately, *I panicked* (P2).
- I saw everyone having fun, but *I was struggling,* and needed my friend *to get me through it* (P8).

Subtheme 1.3: Taking Responsibility. Cadets recognized their role in the situation and how the fact that they were aware of the situation affected their perceived need to do something about it. Their awareness of the ethical importance of the situation led them to find themselves "morally responsible" (P78). Some examples:

- I rationalized that *if he didn't tell me about it…I was not responsible* for his actions (P24).
- I realized…that turning your back or *shutting your eyes to something that challenges your ethics and hurts others is just as bad as actually committing the injustice yourself* (P81).

Subtheme 1.4: Taking Charge. Cadets ask themselves what they can do in the situation and what limitations apply to what they can do. This is an action-oriented subtheme, taking into consideration what is possible for them to do. This subtheme is described in terms of 'stepping up,' 'being brave,' or 'being in charge' (P28).

- I could see what was about to happen…[T]he reality of the consequences of what could happen sunk in. *I stepped up…and told him not to do it* (P9).

- Thankfully another Cadet female was *brave enough to stop the situation*….I thank God that there are people like this female Cadet to *stick up for those who might not stick up for themselves* (P28).

Theme 2: Assessing the Seriousness of the Situation

The second theme, conceptually related to Overcoming Uncertainty (Subtheme 1.1), is one of evaluating the decision making situation. The Cadet seems to be working through a set of questions that allow him or her to reveal a more detailed understanding of what is happening in the situation and what may result from the situation. This theme consists of three subthemes, addressing the questions: (1) How Common or Prevalent is the Problem?, (2) Who is being Benefitted or Harmed by the Situation?, and (3) What Consequences May Result from My Actions in this Situation?

Subtheme 2.1: How Common or Prevalent is the Problem? Cadets described their decision making situation in terms of the prevalence of the behavior or beliefs that are causing the ethical dilemma. Prevalence is described as 'many,' 'a lot,' 'common,' or 'numerous.' Problems were seen as prevalent in personal lives as well as in the operations of social institutions. Some examples:
- *Throughout my high school career*, cheating was *rampant*. It was *undeniable*. *Many times* kids would copy each other's work and it would be fine. (P1)
- *Numerous times* I was put in the situation of either having to sell my brother out...or covering up for him. (P27)

Subtheme 2.2: Who is Being Benefitted or Harmed by the Situation? With respect to this subtheme, Cadets described the situation in terms of the people involved and the respective benefits the people received or harms they suffered. Often losses were specified; if benefits were described, the legitimacy of these benefits were often contested.
- [A]ll it does is *promote drugs and violence* and *does nothing constructive for society*….[I]t *degrades all values*…(P16)
- At first I thought I would ignore it *because it didn't harm me* in any way…*It still felt unfair…Regardless of how it affects me*. (P29)

Subtheme 2.3: What Consequences May Result from Actions in this Situation? Cadets described the degree to which something or someone was (or could be) harmed as a result of their decisions and actions in the situation. Subtheme 2.3 focuses on the actions of the narrator of the account, rather than the general state of the situation as in Subtheme 2.2. Descriptive terms associated with this subtheme were 'serious,' 'extreme,' (P12) or 'minimal,' and 'minor' (P58).
- I saw the damage was *minimal*….I knew *it would take weeks* before the owner realized…*if she noticed at all.* (P58)
- I, on the other hand, pulled for getting him medical attention, which eventually my argument won out and we got him to the hospital and *got him the medical attention he needed*. It was apparently a *life threatening* concussion. (P50)

Theme 3: Defining the Ethical Self

The third theme concerned how Cadets experienced themselves, and how they imagined others would experience them, as an ethical person in relation to the decisions they make, how they make these decisions, and how they learned from their experiences. This theme is conceptually related to Taking Charge (Subtheme 1.4). There are four subthemes associated with this theme: (1) Personal Integrity, (2) Consistency & Conviction, (3) Learning & Change, and (4) Reputation.

Subtheme 3.1: Personal Integrity. Integrity is a concept of the self as an ethical person and the specific qualities associated with that understanding. For Cadets it was described in terms of a quality of the self that can be 'gained,' 'lost,' or 'broken'. It was associated with possessing qualities of honor, fairness, honesty, and self-respect. Some examples:
- I did not choose because any higher power told me…I did this *from my own self*. I found that *my ethical person* could not support this behavior and I did something about it. (P76)
- I did not want to *stoop to be a cheater*…. From an outsider's view, they could say that I *didn't want to break my integrity* or they could say I was just afraid of being caught…. I'm not sure if I had entirely *internalized honor* at this point or if I was performing behaviors to not get in trouble. (P6)

Subtheme 3.2: Consistency & Conviction. This is the temporal aspect of the ethical self; that is, how a person sees himself or herself behaving over time, and how he or she presents himself or herself to others over time. Consistency is associated with being trustworthy; conviction is associated with being honest with one's self and with others. Some examples:
- I have a *strong set* of ethics and morals *that I live by*. (P81)
- I *held to my conviction*…. Several other Cadets, about half the class, agreed with us but said little. (P55)
- I have come to the conclusion that it is *always better to simply tell the truth*, whether they want to hear it or not. This has *developed a great deal of trust* between my parents and I…(P74)

Subtheme 3.3: Learning & Change. Cadets focused on how lessons learned from past experiences became useful to them in their situation. They also anticipated how their future decisions may be influenced by the understanding they gained from the experience they described, focusing on what they should or should not have done in that situation. Some examples:
- *Now I realize* that I can be faced with a tough decision and make the right choice. I just *hope it can be carried over* when the stakes are much higher. (P57)
- Luckily for me this did not cost a life like a lie can in the field but *it did teach me an important lesson* regarding ethics and maintaining integrity. (P66)

Subtheme 3.4: Reputation. Cadets described being aware of how others viewed them as as part of a social group. They were also aware of how others might view them in terms of their affiliation with the Army and/or the USMA. They described this as reputation. Some examples:

- It is important to live ethically and be aware of the decisions being made around you so that you are not influenced to make poor decisions and you are *not associated with poor ethical decisions* that can *ruin your reputation and respect of those around you.* (P81)
- My little sister…*looks up to me* in almost every way. (P51)

Theme 4: Evaluating Relationships with Others

This theme most concerns how Cadets described their relationships with others in their immediate social environment (i.e., people he or she knows personally). This theme seems to be conceptually associated with Resisting Pressure & Temptation (Subtheme 1.2), as many pressures to react to a situation are perceived to come from other people. It consists of two subthemes: (1) Judgment & Evaluation of Others, and (2) Loyalty to & Connectedness with Others.

Subtheme 4.1: Judgment & Evaluation of Others. Cadets described how they attached a value to the ethical beliefs and actions of others in their social environment. The judgment is often made in terms of some quality of the individual or group being judged, e.g., in terms of popularity or place in social hierarchy. These descriptions suggested, at times, a feeling of being disconnected from specific other individuals. Some examples:
- *[Peer]…did not share my neutral sentiments*, and on many occasions we would reach an ideological impasse…. There seemed to be nothing I could do at the time….*There was no getting through to him.* (P83)
- To be honest, *the way they talk about this stuff is disrespectful…*(P14)

Subtheme 4.2: Loyalty to & Connectedness with Others. Cadets described how they see themselves fitting into their social world. They describe what groups they belong to, their social roles, their future profession, etc. They often express loyalty to other members of the group of which they view themselves to be a part. Protecting the group from damage to its respectability is a significant aspect of this subtheme. Some examples:
- I knew my *loyalty needed to be with my supervisor* and *protecting* the integrity of the camp. (P26)
- This was an extremely difficult decision and I *didn't want to let anyone down.* I decided to *put blood before bud*. (P51)

Theme 5: Thinking Through Institutional Rules & Laws

Theme 5 concerns Cadets' perceived relationships between themselves, their social group, etc., with overarching social institutions and forces. It is concerned with relationships to more abstract categories of social relations, such as authority, rules, or laws. This theme is associated with Taking Responsibility (Subtheme 1.3). It has two subthemes: (1) Personal & Shared Obligations to Observe Law, and (2) Enforcement of Rules & Concern with Punishment.

Subtheme 5.1: Personal & Shared Obligations to Observe Law. This subtheme was often described in terms of how the Cadet, and others, made a choice to observe or not observe laws, rules, and other authorities. Sometimes this is expressed in terms of a social obligation 'to

submit to the authority of law'; other times, a need to remain personally vigilant that just because something is legal does not make it ethical. Some examples include:

- I felt *I had the authority to enforce this standard* because part of the *social contract* in the United States among people is *Common Law of honesty, fairness, and respect of property*, so *if people violate those, their actions don't belong in America* and I tell them and force them to stop…(P62)
- While *he was breaking the law, he was doing so out of an almost necessity.* After witnessing the crime, I decided to tell…because I felt *his condition did not make him immune to the laws* that society are held to. (P60)

Subtheme 5.2: Enforcement of Rules & Concern with Punishment. In some accounts, Cadets described a relationship to Institutional Rules and Laws in terms of how these rules and laws are being enforced. That is, they were concerned with potential punishment for disobedience. In some cases, the Cadets were concerned about over-enforcement: situations in which punishments were applied even when a rule or law had not actually been broken. Opposing this, some Cadets described situations in which rules and laws were 'on the books,' but no one enforced them. Some examples:

- I was able to do whatever I wanted *without fear of reprisals*…. I chose not to take it. (P89)
- Seems as though *they never got caught* for anything. (P12)
- There were *no strict guidelines or punishments* given out like there are at West Point, so there was *nothing to bind them to a higher moral standard.* (P1)

Summary Statement from the First-Person Perspective

The following is a summary statement of the ethical decision making experience written from the perspective of a Cadet who is making a decision. This is intended to be an experience-near description of the model, not the statement of actual Cadet. The first-person language of this statement may be considered in contrast to the way that decision making is often described in more abstract terms, as a conceptual model. This is intended to complement the description of themes:

When I make an ethical decision, I am in a situation where what I had expected should happen does not. What I expected seemed right to me, and this conflict between what I believe and what I presently perceive seems wrong. I am concerned with right and wrong: the USMA Cadet Honor Code requires me not to lie, cheat, steal, or tolerate those who do. As a Cadet, this is significant to me, as are my other philosophical and religious principles and values.

I need to make a choice and do something about this problem. What I should do, however, is unclear. I am responsible, for I am aware, but I lack all I need to know. Even if I knew well what I am up against, can I really do anything about it? What power do I have to take charge and act? There really are so many possibilities for what I could do. I feel pressured. I do not want to have to act before I am ready. But if I do have to act right now, I want to have the best effect possible.

21

The problem I face is serious. Whether rare (or common), it bothers me. People are getting hurt while others benefit illegitimately. There is a lot I could do. In the end, I need to understand how my act will help or hurt.

You know that I am a good person. I have personal integrity. And, I protect it. I refuse to lose that integrity by acting foolishly or impulsively. Being consistent, and showing conviction to my principles, is essential. I learn from my experiences and I want to maintain a good reputation with others. I like that others trust me. I would hate to lose that trust, even if I do sometimes make mistakes.

I have certainly witnessed the acts of brave and truly admirable people. I wish that there were more like them. I have also found people saying and doing things that are truly appalling. Nonetheless, I feel connected to other people: my friends, my family, and my colleagues. I am loyal to them and, for the most part, they are loyal to me. That is why it is difficult when I see otherwise good people, whom I care about, do things that seem very wrong. Sometimes, I have to call them out, help them to change, or get them out of my life.

Regardless of what I ultimately do, I am obligated to the laws, rules, and authorities of my Country, USMA, and the Army. I realize that laws and rules can sometimes be wrong or unjustly enforced. That is why I must always think these things through. It is important that I determine what I need to do to be in accord with both the law and the right ethical principles. Even when I find myself in situations where law is not strictly enforced—where others may stray in the absence of the threat of punishment—I will do my best to do what is right and to be an example for others. This is what I am aware of as I make an ethical decision.

Applications of the Thematic Model

The Cadets who wrote accounts for us were able to reflect on and describe their experiences with clarity and detail. This is an excellent situation to be in from the standpoint of a researcher who is reading and interpreting the accounts. It leads one to consider, however, whether conclusions based on this sample may be biased. In this regard, it is important to note that the qualitative method used in this phase of the research was intended to describe the specific experience of ethical decision making and not to generalize about the statistical distribution of factors related to ethical decision making in a population (cf. Pollio, Henley, & Thompson, 1997). Given the diverse experiences represented by this set of accounts, the level of detail provided in the accounts, and the repetition of key themes across accounts, the researchers felt confident that the model represents what the experience of making an ethical decision is like at a thematic level. When the issue is generalizing to an experience, it is more the structure of meanings conveyed by the thematic model that take precedence over the particular labels applied to name the themes.

The labels may be particular to words used in the participants' accounts; the structure of meanings is likely more generalizable. Consider for example the many ways that the Subtheme of Overcoming Uncertainty could emerge in a participant's experience. In some cases Overcoming Uncertainty could be framed as a challenge that the participant has embraced, in other cases it could be framed as a threat to their decision making process and a potential source

of conflict. It is these sorts of particular meanings that can be addressed in dialogue with trainees concerning the particular thematic aspects of their experience. Trainees will then begin to learn the theme and its variations.

A thematic model presents a broad spectrum view of the meaning of an experience. A thematic model does not represent any particular individual's experience in detail. It specifies the pattern of meanings that are consistent across a set of accounts (Ihde, 1987). The pattern of meanings specifies the ways in which a group of participants reflected on and described how they lived a particular experience. In this case, the thematic model allows us to understand better how these Cadets, as a group, perceived and made sense of ethical decision making situations in their everyday lives.

What benefit does a thematic model like this have for Army training? Within each account, each Cadet exhibited his or her preferences for understanding and describing what he or she experienced. He or she did this in terms of a unique pattern of meanings (the 'themes'). By reading across accounts, the researchers were able to identify the comprehensive set of themes through which these unique patterns of meaning become delineated. By focusing on the similarities and differences between an individual Cadet's pattern and that of the comprehensive thematic model, it becomes possible to determine a Cadet's perceptual and interpretive preferences in that situation. As a diagnostic exercise, a Cadet could do this on his or her own, or with a mentor, using the thematic model as a guide. A trainer may use such a tool to engage Cadets in dialogue about a particular ethical decision making experience, guiding discussion, and providing specific feedback concerning perceptual/interpretive choices Cadets seemed to be making in the situation. The model may also be used to point out alternative ways of making sense of the situation.

In becoming more aware of what he or she does in these types of situations, a Cadet may enhance the flexibility of his or her interpretive skills, having learned to make choices systematically and with greater awareness. The model provides a type of structure to cue the evaluative process, with the Cadet's immediate experience providing the perceptual detail to enrich and deepen the meaning of the structure. Cognitive structure and perceptual detail come together to produce an experience that makes sense to the person who is engaged in ethical decision making within a particular situation. Furthermore, the conceptual model they develop would likely be more comprehensive than that developed based on their immediate experience and their preferred style of perception/interpretation. Once learned, a perceptual/interpretive skill of this sort should be applicable to life situations of ethical decision making and, in particular, to making sense of novel situations. In being able to make sense of novel situations in a disciplined and comprehensive manner, an Officers' adaptability is enhanced. This model may be applied to training that concerns ethical decision making in military settings, operating as scaffolding for building more complex knowledge structures and evaluative skills.

Development of the Ethical Perceptions Scale

What a thematic model does not provide is a way to measure the degree to which individuals and/or groups are applying the meanings identified in the thematic model during their decision making process. Following the development of the thematic model, the research team began work on the Ethical Perceptions Scale (EPS) (see Appendix A for two versions of the scale).

As an application of the thematic model, the researchers developed a way to measure the degree to which participants tended to emphasize particular themes when reading, interpreting, and making decisions about military specific ethical dilemmas. The EPS was developed to provide this type of assessment and measurement capability for researchers and trainers working in an Army Professional Military Ethics training context. Conceptually, the EPS was developed to measure the perceptual/interpretive preferences that may influence the decision making process. With such a scale, it becomes possible to make inferences about the statistical distribution of these meanings across groups of decision makers and to provide personalized feedback to both individuals and groups about their own interpretive processes.

When developing the EPS, the researchers considered a number of alternatives for its format. Rather than structure the scale in terms of a general attitudes questionnaire with an agree-disagree response format, we chose to develop a task/behavior focused instrument that elicited interpretive and sense-making decisions and actions. In this way, we would first elicit the decision making behavior we are interested in measuring, and then we would ask respondents questions about the relevance of particular meanings that they were aware of as they completed the task. We determined that a scenario-based instrument, presenting ethical dilemmas in military specific contexts, would be ideal for this type of measurement.

We had an additional requirement. Because we were researching how decision making situations are made meaningful by decision makers in military specific contexts, the decisions we needed respondents to make had to be similar to the sorts of situations they might reasonably encounter at some point in their military careers. In order to develop scenarios that would maximize the interpretive and sense-making behaviors of the respondents, we specified that the ethical dilemmas presented in the scenarios could not provide a clear and correct resolution. The scenarios had to be written in such as way as to be both compelling and ambiguous, able to elicit sense-making skills and allow us to measure perceptual and interpretive preferences. The scenarios were not written to emphasize or de-emphasize a particular theme or set of themes. To gather source material on which to develop military specific scenarios with these characteristics, we looked to accounts provided in Thomson, Adams, and Sartori (2006) as well as those provided by Army Officers and Non-Commissioned Officers known to the researchers.

Our final consideration with respect to the scenarios concerned how many we would need in order to get a reliable sample of sense making and decision making behavior, without placing a burden on respondents' time and ability to stay focused. We decided on four scenarios, of a moderate level of difficulty. The EPS took approximately 20 to 30 minutes for Cadets to complete, working at a rate of one scenario read and evaluated every 5 to 8 minutes. Please see Appendix A for the four scenarios developed for the EPS.

After each of the four scenarios, four questions were asked to further engage respondents in evaluative and decision making behaviors. We asked them first to rate how easy or difficult it was to imagine themselves in the particular scenario on a five-point scale (Very Easy (1); Somewhat Easy (2); Average (3); Somewhat Difficult (4); Very Difficult (5). Table 3 presents the Cadets rankings.

Table 3

Mean (SD) Difficulty to Imagine Self in Described Scenario

EPS Scenario	Mean	SD
Scenario 2 (Protecting Children from Cholera)	3.02	0.97
Scenario 4 (Shoot/No Shoot a Man with Weapon)	2.93	0.25
Scenario 1 (Contractor Mistakenly Fires on LTC)	2.80	0.96
Scenario 3 (Disarmament Mission with Likely Combat)	2.77	1.11

Note: *N*=96

All scenarios were in the 'somewhat easy' to 'average' range of difficulty, and were not statistically different from each other. We interpreted this finding as the Cadets having viewed the EPS scenarios as plausible and not overly difficult to imagine. Next, we asked the Cadets to "briefly describe the most important ethical dilemma you see in this scenario," "briefly describe how you would respond to this dilemma," and "briefly explain why you believe your response is the correct one." Cadets provided written responses to these questions. The open-ended questions were designed to engage the Cadets in a deeper level of analysis of the scenario and how they would respond to it.

For each scenario, the participants were then presented with a rating scale consisting of 17 items. Each item was designed to focus on a particular meaning identified in the thematic model. Items were developed from a list of approximately 180 items addressing each part of the thematic model. The interpretive group selected the items they felt best captured the meaning of a particular theme/subtheme. To generate the data for the rating scale, Cadets were asked "please rate how relevant each of the following concerns was for you when you read and responded to Scenario [#]." The rating scale was: Not Relevant (1); Somewhat Relevant (2); Relevant (3); Very Relevant (4); Essential (5). Here, the respondents were being asked to reflect on their ethical decision making and to indicate what features of the experience stood out to them and to what degree these features stood out. Table 4 presents the set of 17 items in relation to the thematic meaning they were designed to measure.

Table 4
Ethical Perceptions Scale Items and their Associated Thematic Meaning

Aspect of Model	Theme/Subtheme	EPS Item
Ground	Best Right	Determining the best ethical idea of right to address what is happening
	True Right & Wrong	Maintaining focus on what is truly ethically right and wrong
Theme 1: Choosing to Act	1.1: Overcoming Uncertainty	Feeling confused and/or unsure what I should do
	1.2: Resisting Pressure & Temptation	Needing to respond quickly because pressure was building and/or emotions were escalating
	1.3: Taking Responsibility	Being personally responsible for my decision and what happens as a result of it
	1.4: Taking Charge	Taking control and/or handling effectively my limited power and resources
Theme 2: Assessing the Seriousness of the Problem	2.1: How Common?	Wondering how often this type of situation may happen
	2.2: Who Benefitted/Who Harmed?	Recognizing that this situation is full of tradeoffs and pitfalls for everyone involved
	2.3: Potential Consequences of Actions	Evaluating how good or bad the possible consequences could be
Theme 3: Defining the Ethical Self	3.1: Personal Integrity	Considering how my decision(s) may affect my integrity
	3.2: Consistency & Conviction	Sticking to my beliefs and being consistent in my actions
	3.3: Learning & Change	Incorporating lessons learned from experiences I have had and/or cases I know about
	3.4: Reputation	Concern about what others may say and/or think about what I do
Theme 4: Evaluating Relationships with Others	4.1: Judgment & Evaluation of Others	Evaluating and judging the behavior of others
	4.2: Loyalty & Connectedness to Others	Feeling a sense of connection and loyalty to my colleagues, friends, and peers
Theme 5: Thinking Through Institutional Rules & Laws	5.1: Personal & Shared Obligations to Observe Law	Being obligated to rules and laws to resolve this situation appropriately
	5.2: Enforcement of Rules & Concern with Punishment	Not making myself and my team subject to legal consequences and/or punishments as a result of what we do

Each item in Table 4 was written to be specific to each meaning expressed in the thematic model. By averaging scores for like items across the four scenarios, an average response tendency can be determined, indicating the respondent's current perceptual/interpretive style. This averaged measure is intended to reflect the participants' perceptual and meaning-making preferences by balancing out the effects of any particular scenario on individual ratings. In addition, these scores can be calculated in terms of a set of thematic mean scores that provide a measure of perceptual/interpretive preferences with respect to the overall thematic model. The EPS allows one to measure individual and group preferences in how military ethical dilemmas are perceived and made meaningful in the decision making process.

Discussion of Ethical Perceptions Scale

The wording of the 17 'relevance' items on the EPS was developed to exemplify the meanings described by the thematic model. The EPS is therefore an empirically grounded instrument, designed with reference to the concrete experiential accounts of its target population rather than with respect to an abstract ethical and/or moral theory. There are distinct advantages to this type of starting point for the Army; it gives Army researchers, leaders, and trainers insight into the meaning making processes of the target training population, and it provides a model that is adaptable for training Officer Cadets who have wide-ranging life experiences as well as diverse political, philosophical, and religious beliefs.

The 17 EPS questions were paired with each of four military specific scenarios. These scenarios were developed by researchers to have two central features. First, the scenarios needed to be the types of ethical decision making situations small-unit leaders could encounter in the current operating environment. Second, the scenarios needed to be evocative yet also ambiguous and could not offer a clear and correct resolution. By having this kind of structure, the scenarios balanced both face validity and lifelike complexity with a capability to elicit and challenge Cadets' perceptual and sense making skills.

The pairing of the 17 EPS questions is not limited to these scenarios, however. Scenarios may be adapted, changed, and normed for different initial entry training groups, appropriately addressing the content domain and area of specialization in which Professional Military Ethics is being addressed. Four scenarios were chosen for the EPS in order to provide a sufficient sample of decision making behavior on which to determine perceptual and interpretive preferences. With an equivalent number of scenarios, having similar characteristics to those specified above, a trainer or researcher should be able to get similar measurement results.

Reliability Analysis of the Ethical Perceptions Scale

Method

After developing the EPS, we tested the reliability of the scale. We analyzed the reliability of the scale based on data provided by a sample of 98 USMA Cadets. The analyses were conducted following procedures described in Carmines and Zeller (1979) and Nunnally and Bernstein (1994), consisting of Cronbach's reliability coefficient α.

Participants. A demographic questionnaire and the EPS was administered to 98 Cadets enrolled in PL100 in the Department of Behavioral Sciences and Leadership at the USMA. Testing took place during a 55-minute rest period in the Cadets' daily schedules. Group sizes ranged from five to 40 Cadets per session. Cadets were awarded extra credit in their classes for participating. Table 5 describes the characteristics of the sample group.

Table 5
Demographic Characteristics of the Sample Group in the EPS Reliability Assessment

Demographic Characteristics	N	% of Sample
Total	98	100
Year in School		
Plebes (Freshmen)	95	97
Yearlings (Sophomores)	3	3
Gender		
Males	78	80
Females	20	20
Age (Years)		
18	49	50
19	37	38
20 to 25	12	12
Family Background		
Comes From a Military Family	37	38
Comes From Military Academy Family	28	29
Personal Beliefs		
Is Religious and/or Spiritual	80	82
Has a Personal Moral Philosophy	69	70
Grew Up Familiar with Army Values	33	34

Members of the research team who are affiliated with USMA maintained that this pattern of demographic characteristics is consistent with what they have found in other research efforts.

Procedure. Cadets met in a classroom in the Department of Behavioral Sciences and Leadership at the USMA. Researchers explained to Cadets the rationale for the EPS and for reliability assessment. The researchers then administered informed consent to the Cadets. The Cadets completed and returned the demographic questionnaire and EPS forms to the researchers. Forms were checked for completeness.

Cadets were allowed to ask questions during and following the session. No questions were asked concerning the meaning of specific terms, etc., on the EPS. A number of Cadets commented that the EPS was a challenging self-assessment exercise; others commented on the difficulty of particular scenarios. The researchers felt these comments indicated good face validity for the scenarios and items.

Reliability analyses were conducted following standard psychometric techniques (cf. Carmines & Zeller, 1979; Nunnally & Bernstein, 1994). Means and standard deviations were calculated for related items across the four scenarios. This approach allowed us to identify general response tendencies for the themes and to check the distribution characteristics of the

items. A reliability assessment using Cronbach's α allowed us to determine the overall reliability of the EPS (based on the mean item scores) and whether any items were unrelated to the overall ethical sensitivity construct.

Results

The first statistical analysis conducted concerned the means and other distributional characteristics of the EPS themes and subthemes. The results are presented in Table 6.

Table 6
Ranked Mean Relevance of EPS Meanings

Theme	Mean	SD	Min	Max	Kurtosis (+/-1=Good)	Skew (+/-1=Good)
Taking Responsibility	4.24	.62	2.75	5.0	-.62	-.55
Potential Consequences of Actions	4.15	.65	1.75	5.0	.76	-.78
True Right/Wrong	3.90	.84	1.0	5.0	.48	1.25
Taking Charge	3.89	.69	2.0	5.0	.33	-.45
Consistency & Conviction	3.87	.79	2.0	5.0	-.67	-.34
Resisting Pressure & Temptation	3.86	.77	1.0	5.0	.76	-.62
Best Right	3.84	.84	1.5	5.0	.48	.10
Who Benefitted/Who Harmed?	3.64	.92	1.0	5.0	.09	-.67
Loyalty & Connection with Others	3.19	.82	1.0	4.8	.18	-.58
Personal Integrity	3.18	.96	1.0	5.0	-.32	-.02
Obligations to Observe Law	3.17	.95	1.0	5.0	-.39	-.25
Overcoming Uncertainty	3.16	.80	1.0	5.0	.16	-.20
Enforcement & Punishment	3.02	1.05	1.0	5.0	-.67	.09
Learning & Change	2.95	.91	1.0	5.0	-.21	.10
How Common?	2.72	1.06	1.0	4.8	-.93	-.02
Reputation	2.25	.97	1.0	4.5	-.27	.66
Judgment & Evaluation of Others	2.02	.68	1.0	4.0	.11	.46

Note. *N*=98 for all themes. Values that are +/- for kurtosis and skew indicate the direction that the observed distribution differs from a theoretically "normal" distribution. Skew indicates a shift right or left; kurtosis indicates how flat or peaked the observed distribution is.

Table 6 presents the ranked means of Cadets' responses across the four scenarios for each of the EPS themes. The ranked themes indicated that the Cadets focused on **Taking Responsibility**, **Potential Consequences of Actions**, concerns about **True Right/Wrong**, their ability for **Taking Charge** in the situation, **Consistency & Conviction**, **Resisting Pressure & Temptation** to react to the situation, and identifying the **Best Right** solution for the situation were highest ranked. **True Right/Wrong** exhibited a slight skew toward higher relevance scores in its distribution, three outlying cases were deleted to normalize the distribution (with these cases deleted, the True Right/Wrong distributional characteristics were M=3.97; SD=.72; Skew=-.53; Kurtosis=-.18; *N*=95). The outlying cases were identified using the Boxplot technique (Frigge, Hoaglin, & Iglewicz, 1989).

Cronbach's α Assessment. Thematic means were selected for analysis as they are likely the most stable measure of the ethical perceptions construct, with effects of particular scenarios being evened out by statistical averaging. The overall α for the thematic means was α=.86 (17 item means; *N*=95), using the corrected **True Right/Wrong** mean. There was little difference when α was calculated with the three outlying cases included α=.87 (17 items; *N*=99). The skew for **True Right/Wrong** was not large enough to diminish the reliability of the overall scale.

No significant increases in α could be obtained by dropping items. The mean for the overall corrected scale is M=57.49 (SD=8.0; Variance=63.35), and with outliers included, M=57.10 (SD=8.2; Variance=66.38). These findings provide very good provisional evidence that the EPS is a reliable measurement instrument for the construct we identify as ethical sensitivity. For our purposes, however, this overall measure on EPS is less useful than the specific patterns of relationships that can be observed among thematic means. Table 7 presents the thematic means in terms of the overall thematic model, along with Cronbach's coefficient *α* reliabilities reported for each thematic mean.

Table 7
EPS Means, SD, Item-Total Correlations, and Reliabilities (Coefficient α) Organized According to the Thematic Model

Theme	Subtheme/Meaning	Mean	*SD*	Item-Total Correlation	*α* (Items)
Ground		**3.89**	**.76**		**.87**
	Best Right	3.84	.84	.58	**(8)**
	True Right & Wrong	3.97	.72	.47	
Theme 1: Choosing to Act		**3.79**	**.52**		**.81**
	1.1: Overcoming Uncertainty	3.16	.80	.43	**(16)**
	1.2: Resisting Pressure & Temptation	3.86	.77	.53	
	1.3: Taking Responsibility	4.24	.62	.51	
	1.4: Taking Charge	3.89	.69	.59	
Theme 2: Assessing the Seriousness of the Problem		**3.50**	**.65**		**.81**
	2.1: How Common?	2.72	1.06	.55	**(12)**
	2.2: Who Benefitted/Who Harmed?	3.64	.92	.39	
	2.3: Potential Consequences of Actions	4.15	.65	.47	
Theme 3: Defining the Ethical Self		**3.06**	**.62**		**.85**
	3.1: Personal Integrity	3.18	.96	.59	**(16)**
	3.2: Consistency & Conviction	3.87	.79	.59	
	3.3: Learning & Change	2.95	.91	.51	
	3.4: Reputation	2.25	.97	.38	
Theme 4: Evaluating Relationships with Others		**2.61**	**.62**		**.69**
	4.1: Judgment & Evaluation of Others	2.02	.68	.45	**(8)**
	4.2: Loyalty & Connectedness to Others	3.19	.82	.35	
Theme 5: Thinking Through Institutional Rules & Laws		**3.10**	**.90**		**.83**
	5.1: Personal & Shared Obligations to Observe Law	3.17	.95	.62	**(7)**
	5.2: Enforcement of Rules & Concern with Punishment	3.02	1.05	.53	*

Note. The overall mean score for the Ground was calculated using the corrected True Right/Wrong mean. Subtheme 5.2 was in error presented twice on the fourth scenario. Reliability was calculated based

on the first presentation of the item, resulting in a calculation based on 7 rather than 8 items. This did not negatively affect the reliability for Theme 5. On subsequent versions of EPS this was corrected.

Conclusions

The Ethical Perceptions Scale was found to be generally reliable, in accord with customary coefficient alpha ('α') criteria (Schmitt, 1996). For the themes that did not meet our criteria for α reliability (α=.70), there is not yet sufficient evidence to warrant removing the associated items. Additional research may warrant adding or revising one or two items to the **Evaluating Relationships with Others** theme in order to increase coefficient α reliability from α=.69 to above the α=.70 threshold. Revisions to those EPS items may help them to better conform to the meanings of the themes as expressed in the Cadets' accounts.

Confirmatory Factor Analysis of the Relationship between the Thematic Model and the Ethical Perceptions Scale

Method

One question that needed to be addressed in developing the Ethical Perception Scale was whether the scale was measuring in accord with the thematic model. In order to assess the latent factor structure of the EPS, and whether it corresponds to the structure of themes presented by the thematic model, a confirmatory factor analysis was conducted. Kline (2005) was consulted to guide the analysis.

Participants. The confirmatory factor analysis used the combined samples of Cadets who completed the EPS during the reliability and validity phases of this research (*N*=197). The Analysis of Moments Structure (AMOS v. 16) program was used to test the fit of the EPS factor structure with respect to the thematic model and to identify any necessary modifications. The confirmatory factor analysis procedure was necessary given that we are moving from a meaning-centered to measurement-centered model. We expected that the fit would be good between the two models, but that there would also be adjustments needed. The EPS limits measurement to 17 specifically worded items in relation to four specific scenarios; the thematic model is based on an open-ended data collection format.

Procedure. The EPS mean scores for the reliability sample (*N*=98) and the validation sample (*N*=99) were combined into a single database. We applied a strict criterion to case selection, identifying and removing outlying cases using the Boxplot technique. We excluded whole cases if there were any unusual response patterns, reducing the test sample by 16 participants to *N*=181.

Results

A first stage model was designed in AMOS 16, using the Ground and five main themes of the thematic model as latent factors. Analyses were conducted using the Maximum Likelihood estimation algorithm. Models were compared based on the Root Mean Square Error of Approximation (RMSEA; Browne & Cudeck, 1993), Comparative Fit Index (CFI; Bentler, 1990), Bollen's Incremental Fit (IFI Δ^2; Bollen, 1989), the Standardized Root Mean Square

Residual (SRMR), and the Minimum Discrepancy (CMIN/df; Carmines & McIver, 1981). The criteria for adequate fit are RMSEA < .10; CFI>.90; IFI Δ^2>.90; SRMR<.10; CMIN/df < 3. Table 8 presents the model complexity and fit indices for the Confirmatory Factor Analysis test of the fit between the thematic model and the EPS.

Table 8
Confirmatory Factor Analysis Test for Reduced Item Structure

Model*	Removed Items	X^2	RMSEA	CFI	IFI Δ^2	SRMR	CMIN/df
Full	--	274.3 df=104	.091 Lo90=.078 Hi90=.105	.813	.819	.067	2.64
1 Item Removed	Uncertainty	225.6 df=89	.088 Lo90=.074 Hi90=.103	.843	.849	.061	2.54
2 Items Removed	Uncertainty & Prevalence	189.0 df=75	.088 Lo90=.073 Hi90=.104	.864	.869	.053	2.52
3 Items Removed	Uncertainty, Prevalence, & Reputation	129.3 df=62	.074 Lo90=.056 Hi90=.092	.917	.914	.041	2.09

*Note. Based on modification indices, three items were removed to specify the model. Lo90 and Hi90 indicate respectively the lower and upper bounds of the confidence interval for the reported RMSEA index.

Fit was best for the model that was reduced by three items, which retained 14 EPS items to measure the latent constructs. This reduced model allowed us to achieve a balance between the complexity of the thematic model and the parsimony of the EPS factor structure, as the solution was able to adequately measure the latent constructs specified by the thematic model. For this sample, **Overcoming Uncertainty**, **How Common?**, and **Reputation** were the three items found not to be contributing to the measurement of the latent constructs. Each reduction of the model was statistically significant: Full Model – Uncertainty, ΔX^2(df=15)=48.7, p<.0001; Full Model – Uncertainty & Prevalence, ΔX^2(df=29)=85.3, p<.0001; Full Model – Uncertainty, Prevalence, & Reputation, ΔX^2(df=42)=145, p<.0001.

Once observed measures were reduced in the model, we tested the latent factor structure of the model. For the first reduction, the **Choosing to Act** items were combined with each of the latent factors that could be conceptually related based on the Cadets' written accounts of their ethical decision making experiences. The observed measure **Taking Charge** was nested in the latent construct **Defining the Ethical Self**; **Resisting Pressure & Temptation** was nested in **Evaluating Relationships with Others**; and **Personal Responsibility** was nested in **Thinking Through Institutional Rules & Laws**. The second model reduction nested the observed

measures for the **Assessing the Seriousness of the Problem** within the **Ground** of the model. These observed measures were **Who Benefitted/Who Harmed?** and **Potential Consequences of Actions**. The results of these tests are presented in Table 9.

Table 9
Confirmatory Factor Analysis Test for Reduced Factor Structure

Model*	Desc.	X^2	RMSEA	CFI	IFI Δ^2	SRMR	CMIN/df
Reduced Item Model		129.3 df=62	.074 Lo90=.056 Hi90=.092	.917	.914	.041	2.09
-1 Factor	Choosing to Act	178.7 df=67	.092 Lo90=.076 Hi90=.109	.858	.862	.052	2.67
-2 Factors	Choosing to Act & Seriousness of Problem	226.9 df=71	.106 Lo90=.091 Hi90=.121	.802	.807	.067	3.20

We tested reasonable alternative models in order to reduce the factor structure. As we reduced the number of latent constructs in the model, the fit indices indicated worse fit. For instance, beginning with the six construct model (RMSEA=.074; Lo90=.056 to Hi90=.092), removing the Choosing to Act construct reduced fit (RMSEA=.092; Lo90=.076 to Hi90=.109), and again removing the model by the Seriousness of Problem construct in addition to the Choosing to Act construct again reduced fit (RMSEA=.106; Lo90=.091 to Hi90=.121). The tests of reduced structure indicated the models with fewer latent factors had a worse fit than the initial model, indicating that the model consisting of six latent constructs had the best fit. Alternative models based on this specific sample may have better fit, but these models would likely also be less generalizable as they would be modeling characteristics that are specific only to this sample. Based on these findings, we retained the thematic model. Figure 2 presents the factor structure and standardized factor loadings between the latent constructs (the Ground and Themes of the Thematic Model).

The differences in the chi-square value for each of the nested models were significant when comparing the Reduced Item Model that retains the latent structure of the factors and alternate models that reduce the number of latent factors. When the subthemes associated with Choosing to Act were nested within related themes and the factor structure was reduced by one, there was a significant increase in the chi-square value indicating a decrease in fit, $\Delta X^2 (df=5)=49.4$, $p<.0001$. When the subthemes for both Choosing to Act and Seriousness of the Problem were nested within the model, reducing the factor structure by two, fit again decreased, $\Delta X^2 (df=9)=97.6$, $p<.0001$.
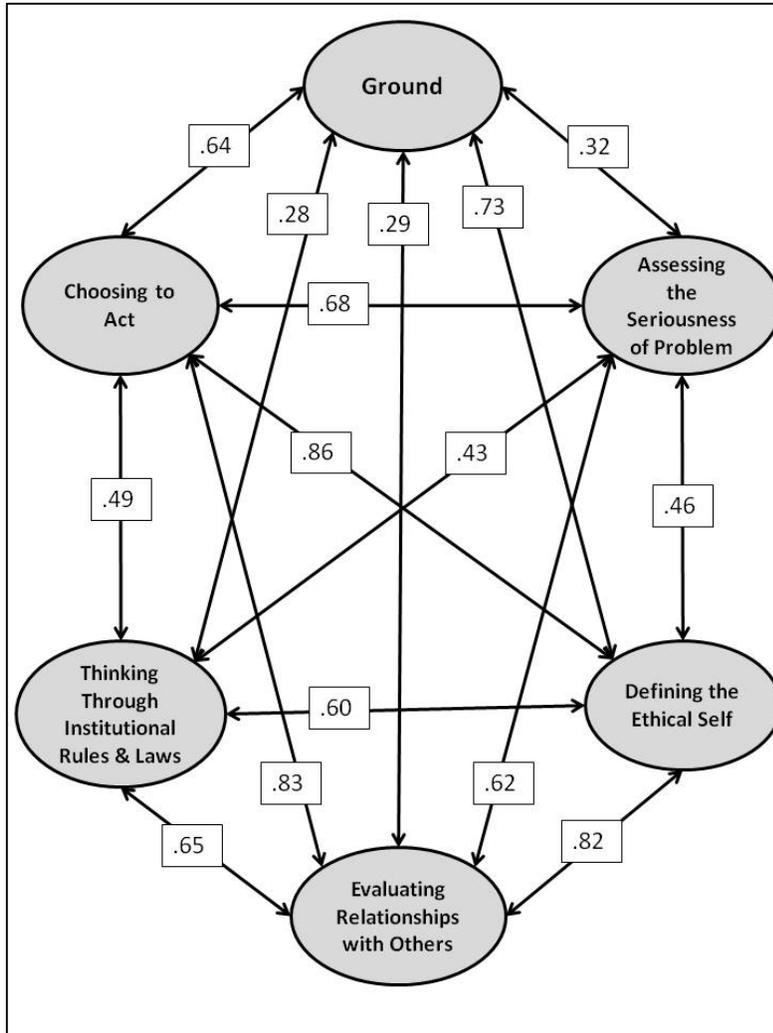
Figure 2. Covariances among the Six Ethical Perception Scale Latent Factors

The covariances between latent factors indicate that factors are correlated (e.g., oblique) rather than independent (e.g., orthogonal). For instance, particular latent factors tended to share high covariance, such as the triad between **Choosing to Act**, **Defining the Ethical Self**, and **Evaluating Relationships with Others**. The **Ground (Right/Wrong)** of the model appeared to share the most variance with **Defining the Ethical Self**, slightly more even than **Choosing to Act**. **Assessing the Seriousness of the Problem** shared its highest variance with **Choosing to Act**, and far less with **Thinking Through Institutional Rules & Laws** and the **Ground** of the model. These relationships are suggestive for those who would pursue additional research with this model and metric in order to modify the instrument or to explore the indicated patterns.

Conclusions

The confirmatory factor analysis supported that the EPS measures are in accord with the six-factor structure hypothesized by the thematic model. Three observed measures were removed from the calculations of the latent factors: **Overcoming Uncertainty**, **How Common?**,

and **Reputation**. It was found that these observed measures did not support an improved factor structure and were redundant in the model for these participants. This may be an artifact present in the data collected on this particular sample. Alternatively, it may indicate that the subthemes indicated by these three items are not relevant to the ethical sensitivity construct, or that the way we wrote these items did not capture the relevant meanings indicated by the thematic model. Even with the reduction in items, the results of the confirmatory factor analysis validated our thematic and measurement models of the ethical decision making experience.

Construct Validity Assessment of the Ethical Perceptions Scale

Following assessment of the reliability and factor structure of the EPS, construct validity was assessed using the Defining Issues Test (Version 2) (Rest et al., 1997) and the Integrity Scale (Schlenker, Miller, & Johnson, 2009) with a sample of 99 Cadets. Both DIT-2 and the Integrity Scale have undergone extensive validation to support their use for behavioral and social science research and assessment in the moral/ethical conceptual domain (Rest et al., 1997; Schlenker, 2008). Neither instrument measures exactly the same construct as the EPS, but both do measure constructs that are conceptually related. In performing the construct validation assessment, we expected to find consistent, although not large, correlations between the EPS thematic means and the related constructs as measured by DIT-2 and the Integrity Scale.

The Defining Issues Test (DIT-2). DIT-2 provides a measure of respondents' preferred moral judgment schemas. The schemas were derived from Kohlberg's (1984) theory of moral development. The DIT-2 presents five scenarios, each followed by 12 issues. Participants are asked to rate each of the issues on a 5-point scale, ranging from 'important' to 'not important.' The issues present different decisions that can be made with respect to each DIT-2 ethical dilemma. Following this, the participants are asked to rank the top four most important issues. The DIT-2 is a measure of the how concepts of social justice develop and are applied. In this research, we used both the standard DIT-2 indices (Personal-Interest, Norms, & Post-Conventional) as well as the raw stage scores on which these indices are calculated.

The Integrity Scale. The second measure we used for comparison was the Integrity Scale (Appendix B presents the Integrity Scale). The Integrity Scale is an 18-item measure with a Likert-type response format that assesses the degree to which individuals feel that they live their lives in a morally uncompromising fashion and that the world demands such universal application of moral principles. Individuals who ascribe to such a personal identity and ideological viewpoint are considered *principled* individuals. Individuals who do not wholeheartedly affirm these beliefs but rather see the world as a place in which moral principles do not need to be applied consistently and compromises must be made, seeing themselves as responding in accord with these demands, are considered *expedient* individuals. Higher scores on the Integrity Scale correspond to principled identities/ideologies and lower scores reflect expedient identities/ideologies. Few people endorse the most expedient viewpoint possible on the Integrity Scale and are "low" scorers by virtue of the lower scores relative to their more principled counterparts.

While we had some difficulty with the DIT-2 for this analysis, it is an instrument that is commonly used in research and training contexts and that has proven to be reliable with other samples (cf. bibliography in Bebeau & Thoma, 2003). Reliability may be low for this sample because of the cognitive demands presented to Cadets by giving them the EPS, DIT-2, and Integrity Scale together. In addition, the USMA Cadets are an exceptional sample, with many more Cadets scoring high on the DIT-2 Post-Conventional measure than would be found in a normal sample of college Freshman and Sophomores (cf. the statistical norms tables in Bebeau & Thoma, 2003).

An advantage to using the DIT-2 for the EPS validation assessment is that the Simon Center for the Professional Military Ethic at West Point uses DIT-2 to assess Cadets' moral development when they enter the USMA and to track their progress through a 4-year course of Professional Military Ethics education. Given DIT-2's current application by the Simon Center at the USMA, establishing a relationship between the EPS and DIT-2 will be useful to the Army. In addition, the Integrity Scale is an instrument that reliably measures attitudes and character traits that are highly valued by the USMA and the Army. It is for these reasons that both these instruments were selected for the validity assessment of the EPS.

Method

Participants. A demographic questionnaire, the EPS, and the Integrity Scale was administered to 99 Cadets enrolled in PL100 in the Department of Behavioral Sciences and Leadership at the USMA. Among this group of 99 Cadets, 72 were also administered the DIT-2.[7] The instruments were presented in order of EPS, Integrity Scale, and then DIT-2. The Cadets participated during a 55 minute rest period in the Cadets' daily schedule. Group sizes were steady at 7 to 10 Cadets per session; Cadets were awarded extra credit in their PL100 classes for participating. Table 10 describes the characteristics of the sample.

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[7] Only 72 USMA Cadets completed the DIT-2. The reason is that the DIT-2 is a proprietary scale, distributed and scored by the University of Alabama Center for the Study of Ethical Development. Due to budgetary constraints, the researchers purchased materials for 72 administrations of the DIT-2. Permission to reproduce and score the Integrity Scale for this research was granted to the authors by Barry Schlenker (University of Florida). Marisa Miller (ARI) has experience scoring and interpreting the Integrity Scale, therefore we were able to administer this scale to all participants (*N*=99 Cadets).

Table 10

Demographic Characteristics of the EPS Validation Sample

Demographic Characteristic	N	% of Sample
Total	99	100
Year in School		
Plebes (Freshmen)	99	100
Gender		
Males	82	83
Females	17	17
Age (Years)		
18	37	37
19	40	40
20 to 23	22	23
Family Background		
Comes From a Military Family	38	38
Comes From Military Academy Family	24	24
Personal Beliefs		
Is Religious and/or Spiritual	79	80
Has a Personal Moral Philosophy	68	68
Grew Up Familiar with Army Values	48	49

The sample for the validation assessment was comparable to the sample for the reliability assessment, with the exception that the Cadets in the validation assessment were all Plebes in their second semester at the USMA. The members of the research team affiliated with the USMA indicated that these age and gender characteristics are in accord with those they have found in other research efforts.

Procedure. Cadets met in a medium sized classroom in the Department of Behavioral Sciences and Leadership at the USMA. Researchers explained the rationale to Cadets for validation assessment of EPS using the Integrity Scale and DIT-2, and administered informed consent. The Cadets then completed the demographic questionnaire, the EPS, and either the Integrity Scale or both the Integrity Scale and DIT-2, and returned their completed forms to the researchers. Cadets were allowed to ask questions during and following the session. No questions were asked concerning the meaning of specific terms on the EPS or Integrity Scale. A few Cadets asked about the meaning of a term on the DIT-2, "Habeas Corpus," which was used in a distractor item on DIT-2.

Construct validation was conducted following standard psychometric techniques (cf. Carmines & Zeller, 1979; Nunnally & Bernstein, 1994). Data were entered in SPSS and checked for errors prior to statistical analysis. Means and standard deviations were calculated for related items across the four scenarios on EPS, and for the Integrity Scale. Means were also calculated for the four factors identified in the reliability research effort. Due to the proprietary formulas used to calculate indices on the DIT-2, the DIT-2 data were entered and scored by The University of Alabama's Office for the Study of Ethical Development, and then returned to Army Research Institute for analysis. Reliability indices were calculated using Cronbach's α for the EPS, the Integrity Scale, and for the DIT-2, following the assessment procedure described in the DIT-2 manual. Factor scores and thematic mean scores were correlated with the Integrity

Scale and the Stage Schema scores from the DIT-2. We used partial correlations to partition out some of the error due to low reliability for the DIT-2 measures.

Results

Thematic means were calculated for the EPS. The thematic mean scores along with their distributional characteristics are presented in Table 11.

Table 11
Ranked Mean Relevance of EPS Themes (Validation Sample)

Theme	Mean	SD	Min	Max	Kurtosis (+/-1=Good)	Skew (+/-1=Good)
Taking Responsibility*	4.37	.58	2.0	5.0	3.30	-1.48
Potential Consequences of Actions*	4.23	.62	2.25	5.0	1.15	-1.03
Taking Charge	4.10	.64	2.5	5.0	-.48	-.31
Resisting Pressure & Temptation	4.07	.75	1.5	5.0	.29	-.80
Best Right	4.00	.80	2.0	5.0	-.64	-.54
True Right/Wrong	3.93	.84	1.0	5.0	.65	-.94
Consistency & Conviction	3.89	.83	2.0	5.0	-.81	-.34
Who Benefitted/Who Harmed?	3.73	.80	2.0	5.0	-.53	-.40
Learning & Change	3.28	.96	1.0	5.0	-.11	-.31
Personal Integrity	3.27	1.08	1.0	5.0	-.88	-.13
Obligations to Observe Law	3.20	.88	1.0	5.0	-.44	-.30
Judgment & Evaluation of Others	3.12	.87	1.25	5.0	-.72	-.20
Loyalty & Connection to Others	3.09	.87	1.0	5.0	-.65	-.06
Enforcement & Punishment	3.05	1.07	1.0	5.0	-.49	-.08
Overcoming Uncertainty	2.45	.78	1.0	4.5	.19	.42
Reputation	2.23	.78	1.0	4.5	-.32	.54
How Common?	1.89	.86	1.0	4.5	.00	.78

*Note. N=99 for all themes presented in the table. To normalize the distribution of the **Taking Responsibility** theme, two extreme outliers were deleted, resulting in M=4.42; SD=.48; Skew=-.73; Kurtosis=-.05; N=97). **Potential Consequences of Actions** was normalized by deleting one extreme outlier, resulting in M=4.25; SD=.59; Skew=-.91; Kurtosis=-.88; N=98). Outliers were identified using the Boxplot technique.

In this sample, kurtosis and skew were extreme for the **Taking Responsibility** theme, and marginally high for the **Potential Consequences of Actions** theme. The distributional characteristics of the other themes were normal. Compared to the reliability sample, **Taking Responsibility** and **Potential Consequences of Actions** remain the two highest-ranking themes on both lists, **Resisting Pressure & Temptation**, **True Right/Wrong**, **Taking Charge**, **Best Right** were retained in the top seven themes for both lists.

Thematic score means and Cronbach's α reliabilities were calculated with respect to the thematic model for the construct validity sample. The results of this analysis are presented in Table 12.

Table 12

EPS Means, SD, Item-Total Correlations, and Reliabilities (Coefficient α) Organized by the Thematic Model (Validation Sample)

Theme	Subtheme/Meaning	Mean	SD	Item-Total Correlation	α (items)
Ground		**3.96**	**.75**		**.86**
	Best Right	4.00	.80	.39	**(8)**
	True Right & Wrong	3.92	.84	.34	
Theme 1: Choosing to Act		**3.48**	**.73**		**.77**
	*1.1: Overcoming Uncertainty** *	*2.45*	*.78*	*.17*	**(12)**
	1.2: Resisting Pressure & Temptation	4.07	.75	.37	
	1.3: Taking Responsibility	4.42	.48	.43	
	1.4: Taking Charge	4.10	.64	.46	
Theme 2: Assessing the Seriousness of the Problem		**3.97**	**.58**		**.73**
	*2.1: How Common?** *	*1.90*	*.86*	*.22*	**(8)**
	2.2: Who Benefitted/Who Harmed?	3.73	.80	.40	
	2.3: Potential Consequences of Actions	4.25	.59	.30	
Theme 3: Defining the Ethical Self		**3.48**	**.73**		**.86**
	3.1: Personal Integrity	3.27	1.08	.61	**(12)**
	3.2: Consistency & Conviction	3.89	.83	.42	
	3.3: Learning & Change	3.28	.96	.43	
	*3.4: Reputation** *	*2.23*	*.78*	*.23*	
Theme 4: Evaluating Relationships with Others		**3.11**	**.67**		**.69**
	4.1: Judgment & Evaluation of Others	3.12	.87	.52	**(8)**
	4.2: Loyalty & Connectedness to Others	3.09	.87	.27	
Theme 5: Thinking Through Institutional Rules & Laws		**3.13**	**.88**		**.86**
	5.1: Personal & Shared Obligations to Observe Law	3.20	.88	.51	**(8)** *
	5.2: Enforcement of Rules & Concern with Punishment	3.05	1.08	.48	

* *Note*. *N*=99 for all themes/subthemes except, Subtheme 1.3 (*N*=97) and Subtheme 2.3 (*N*=98). Means and SD for these subthemes are based on the normalized distributions with outliers excluded. The question associated with Theme 5.2 on Scenario 4 was corrected on this version of EPS.

** Three items were removed for calculation of reliability indices and construct validity, given the findings of the confirmatory factor analysis.

The coefficient α values for the EPS thematic means were similar for the reliability and validation samples. The overall alpha for the EPS thematic means for the validity sample was .80 (15 means; *N*=99). The mean for the overall scale is M=53.55 (SD=6.48; Variance=42.05). Compared with the findings for the reliability sample (α=.87), this provides additional evidence that the EPS is reliable in measuring the overarching ethical sensitivity construct.

Additional data were collected for the validation sample concerning the difficulty of the tasks for each of the EPS scenarios. Cadets were asked to rate each scenario in terms of a five point scale (1=Very Easy; 2=Somewhat Easy; 3=Average; 4=Somewhat Difficult; 5=Very Difficult) in response to four questions concerning imagining themselves in the scenario, identifying the most important ethical dilemma, formulating a response, and explaining to

someone else why they believe their response is correct. Table 13 describes the mean difficulty ratings by EPS scenario and overall.

Table 13
Mean Difficulty Ratings for the Four EPS Scenarios

Question	Scenario 1 Shooting Incident with Contractors	Scenario 2 Children with Cholera	Scenario 3 Disarmament Mission	Scenario 4 Gunman Blocking Egress	Overall
Imagining Self in Scenario	2.46 (SD=0.94)	2.79 (SD=1.1)	2.22 (SD=0.96)	2.10 (SD=1.10)	2.39 (SD=0.76)
Identify Dilemma	2.08 (SD=1.03)	2.57 (SD=1.12)	2.33 (SD=1.06)	1.75 (SD=1.02)	2.18 (SD=0.71)
Formulate Response	2.72 (SD=1.15)	3.32 (SD=1.24)	2.81 (SD=1.20)	2.64 (SD=1.38)	2.87 (SD=0.92)
Explain to Others	2.41 (SD=1.09)	2.79 (SD=1.21)	2.43 (SD=1.14)	2.26 (SD=1.31)	2.47 (SD=0.92)

Note. *N*=99

Difficulty ratings indicated that Cadets found formulating a response to the scenarios the most difficult task, followed by explaining their rationale to others. Scenario 2, which concerned protecting children at risk of death from both cholera and a militia during a civil war, was rated as most difficult for imagining being in the scenario. In addition, Scenario 2 was most difficult to identify the dilemma, to formulate a response, and to explain one's course of action to others. Scenario 4 was rated the least difficult overall, which concerned a shoot/no shoot scenario involving a potentially mentally ill/intoxicated, but armed, noncombatant. These scenarios are described in the section that deals with how we developed the EPS.

The DIT-2 and Integrity Scale comparison measures were also analyzed for standard distributional characteristics. Table 14 presents these results.

Table 14
Mean Ratings for the Integrity Scale and Defining Issues Test (DIT-2)

Scale	Mean	SD	Min	Max	Kurtosis (+/-1=Good)	Skew (+/-1=Good)
Integrity Scale Sum	70.75	8.71	45.00	89.00	.36	-.46
DIT-2						
Stage 2 Schema	2.03	2.69	0.00	14.00	5.26	2.02
Stage 3 Schema	10.43	4.89	2.00	22.00	-.75	.13
Stage 4 Schema	15.36	6.86	2.00	34.00	-.29	.26
Stage 5 Schema	15.14	6.08	1.00	27.00	-.64	-.09
Stage 6 Schema	3.61	2.48	0.00	11.00	.14	.54
Self-Interest (Stage 2 & 3)	25.41	11.59	6.00	50.00	-.83	.06
Norms (Stage 4)	31.22	13.74	5.13	68.00	-.21	.44
Post-Conventional (Stage 5 & 6)	38.67	14.43	2.00	70.00	-.41	-.12

Note. *N*=99 for the Integrity Scale; *N*=72 for the DIT-2 Indices.

Table 14 indicates that, except Stage 2 Schema scores, all items on the DIT-2 and the Integrity Scale exhibited normal distributional characteristics. Based on norms reported in the DIT-2 manual, the USMA Cadets in this sample scored significantly higher on Stage 6 and significantly lower on Stage 2 when compared to a normal sample of College Freshman. In fact, the Plebes (first-year Cadets) in this sample tended to score more in line with average College Seniors (Bebeau & Thoma, 2003).

Table 15 presents the reliability coefficients for the DIT-2 Schema scores and the Integrity Scale.

Table 15
Reliability Ratings for the Integrity Scale and DIT-2

Scale	Reliability	N Items
Integrity Scale	0.84	18
DIT-2		
Stage 2 Schema	0.41	5
Stage 3 Schema	0.41	5
Stage 4 Schema	0.47	5
Stage 5 Schema	0.52	5
Stage 6 Schema	0.52	5
Personal-Interest	0.41	5
Norms	0.47	5
Post-Conventional	0.52	5

The Integrity Scale had comparable reliability to the EPS. However, for this sample, the DIT-2 was less reliable than both EPS and the Integrity Scale. One possible reason for this is that the DIT-2, which is a cognitively challenging instrument, was presented last.

To assess the construct validity of the EPS, the themes/item means were correlated with the Integrity Scale and the DIT-2 Stage Schema scores. To assist in interpreting the DIT Schema scores, the stages on which the scores are based are described below (Bebeau & Thoma, 2003, pp. 18-19).

Stage 2 (Exchange Orientation) considerations focus on the direct advantages to the actor and on the fairness of simple exchanges of favor for favor.
Stage 3 (Approval Orientation) considerations focus on the good or evil intentions of the parties, on the party's concern for maintaining friendships and good relationships, and maintaining approval.
Stage 4 (Norms Orientation) considerations focus on maintaining the existing legal system, maintaining existing roles and formal organizational structure.
Stage 5 (Consensus Orientation) considerations focus on organizing a society by appealing to consensus-producing procedures (such as abiding by majority vote),

insisting on due process (giving everyone his day in court), and safeguarding minimal basic rights.

Stage 6 (Ideals Orientation) considerations focus on organizing social arrangements and relationships in terms of intuitively appealing ideals.

Three standard DIT-2 indices were also studied as part of the validation procedure: Personal-Interest, Norms-Orientation, and Post-Conventional reasoning. The Personal-Interest score is an index calculated based on Stage 2 and 3 items. The Norms-Orientation is based on Stage 4 items. Finally, the Post-Conventional index is based on combined Stage 5 and 6 scores.

The correlations between EPS and DIT-2 were calculated using a reduced sample (N=68), as four DIT-2 cases were indicated to have questionable response patterns by the DIT scorers at the University of Alabama. All cases (N=99) were included for the correlation analyses between EPS and the Integrity Scale. All findings discussed in the conclusion to this section will be based on the significant ($p<0.05$) and marginally significant ($0.051<p<0.10$) partial correlations.

Construct Validity Tests. Using AMOS (v. 16) to control for shared variance among EPS factors, the following hypotheses were tested concerning the relationship between the DIT-2 indices and the EPS thematic scores.

Hypothesis 1: Post-Conventional scores will correlate positively with the **Ground** and **Defining the Ethical Self** theme.

Hypothesis 2: Norms-Orientation scores will correlate positively with the **Ground**, **Defining the Ethical Self**, and the **Thinking Through Institutional Rules & Laws** themes.

Hypothesis 3: Personal-Interest scores will correlate positively with **Evaluating Relationships with Others** and negatively with **Thinking Through Institutional Rules & Laws**.

Hypothesis 4: Integrity Scale scores will correlate positively with the **Ground**, **Choosing to Act**, **Defining the Ethical Self**, and **Thinking Through Institutional Rules & Laws**.

Table 16 presents the results of these analyses.

Table 16

Correlations of EPS Mean Scores with DIT-2 Index Scores and Integrity Scale Score

Themes	DIT Personal-Interest	DIT Norms	DIT Post-Conventional	Integrity Scale
Ground	-.08	.20	-.15	.42
	n.s.	$p=.083$	n.s.	$p<.001$
Theme 1: Choosing to Act	-.17	.15	.05	.38
	n.s.	n.s.	n.s.	$p<.001$
Theme 2: Assessing the Seriousness of Situation	.06	-.27	.235	-.004
	n.s.	$p=.016$	$p=.046$	n.s.
Theme 3: Defining the Ethical Self	-.24	.32	-.14	.42
	$p=.047$	$p=.006$	n.s.	$p<.001$
Theme 4: Evaluating Relationships with Others	.14	-.07	-.04	.017
	n.s.	n.s.	n.s.	n.s.
Theme 5: Thinking Through Institutional Rules & Laws	-.20	.33	-.16	.056
	$p=.083$	$p=.004$	n.s.	n.s.

Note. All covariance models tested: $X^2=10.8$, $df=2$, $p=.005$.

Hypothesis 1 was not supported. None of the predicted correlations were found. However, there was a single significant positive correlation between the DIT Post-Conventional Index and **Assessing the Seriousness of the Situation** from EPS.

Hypothesis 2 was supported. A marginal positive correlation was found between Norm-Orientation and EPS **Ground**, as well as significant positive correlations with EPS **Defining the Ethical Self** and **Thinking Through Institutional Rules & Laws**. In addition to these findings, a significant negative correlation was found between Norms-Orientation and **Assessing the Seriousness of the Situation**.

Hypothesis 3 was partially supported. **Evaluating Relationships with Others** was not significantly correlated with DIT Personal-Interest scores. **Thinking Through Institutional Rules & Laws** was found to be marginally negatively correlated, and **Defining the Ethical Self**, significantly negatively correlated.

Hypothesis 4 was partially supported. Three EPS thematic means—**Ground**, **Choosing to Act**, and **Defining the Ethical Self**—were significantly positively correlated with the Integrity Scale. **Thinking Through Institutional Rules & Laws** was not correlated.

Follow-Up Tests on DIT-2. To further explore relationships between the DIT-2 and the EPS, and to account for effects that may be obscured when only using the DIT-2 Indices (which are calculated as combined subscale percentile scores), we conducted analyses with the EPS

thematic means and the raw DIT-2 Stage Scores, again using the AMOS (v. 16) program to control for shared variance among EPS items. The following hypotheses were proposed:

Hypothesis 5: Stage 2 (Exchange Orientation) will correlate negatively with the **Ground** and positively with **Evaluating Relationships with Others**.

Hypothesis 6: Stage 3 (Approval Orientation) will correlate positively with **Evaluating Relationships with Others**, negatively with **Defining the Ethical Self**, and negatively with **Thinking Through Institutional Rules & Laws**.

Hypothesis 7: Stage 4 (Norms Orientation) will show the same pattern of correlations as for the DIT Norms Index.

Hypothesis 8: Stage 5 (Consensus Orientation) will correlate positively with **Assessing the Seriousness of the Situation** and the **Evaluating Relationships with Others** themes.

Hypothesis 9: Stage 6 (Ideals Orientation) will correlate positively with the **Ground** and with the **Defining the Ethical Self** theme.

Table 17 presents the results of these analyses.

Table 17
Correlations of EPS Mean Scores with DIT Stage Schema Raw Scores

Themes	DIT Exchange	DIT Approval	DIT Norms	DIT Consensus	DIT Ideals
Ground	-.03	-.09	.20	-.20	.18
	n.s.	n.s.	$p=.090$	$p=.094$	n.s.
Theme 1: Choosing to Act	-.18	-.11	.13	.06	-.04
	n.s.	n.s.	n.s.	n.s.	n.s.
Theme 2: Assessing the Seriousness of Situation	-.05	.09	-.27	.25	.04
	n.s.	n.s.	$p=.016$	$p=.035$	n.s.
Theme 3: Defining the Ethical Self	-.12	-.20	.30	-.12	.05
	n.s.	$p=.095$	$p=.009$	n.s.	n.s.
Theme 4: Evaluating Relationships with Others	.06	.13	-.05	.01	.03
	n.s.	n.s.	n.s.	n.s.	n.s.
Theme 5: Thinking Through Institutional Rules & Laws	.04	-.24	.33	-.15	.02
	n.s.	$p=.044$	$p=.005$	n.s.	n.s.

Note. All covariance models tested: $X^2=10.8$, $df=2$, $p=.005$.

Hypothesis 5 was not supported. There were no significant correlations found between EPS thematic means and the DIT Stage 2 (exchange orientation) raw scores.

Hypothesis 6 was partially supported. There was a marginal negative correlation between DIT Stage 3 (approval orientation) and EPS **Defining the Ethical Self** as well as a significant negative correlation with **Thinking Through Institutional Rules & Laws**. No correlation was found with **Evaluating Relationships with Others**.

Hypothesis 7 was supported. The pattern for the Stage 4 (norms orientation) raw score differed little from the DIT Norms-Orientation Index score.

Hypothesis 8 was partially supported. There was a significant positive correlation between DIT Stage 5 (consensus orientation) raw scores and EPS **Assessing the Seriousness of the Situation**. There was also an unpredicted negative correlation with the EPS **Ground**. No correlation was found between **Evaluating Relationships with Others** and the DIT Stage 5 (Consensus) score.

Hypothesis 9 was not supported. No significant correlations were found between EPS thematic means and DIT Stage 6 raw (ideals orientation) scores.

While not ideal, likely due to the unreliability of the DIT-2 for this sample, the overall results were promising. Even given the very low coefficient α reliability scores for the DIT-2 indices, there were low to moderate correlations noted between EPS and the DIT-2, and good correlations observed between the EPS and the Integrity Scale. The findings indicate that EPS is measuring concepts related to ethics and morality, but is not likely replicating either of the existing measures we tested.

Conclusions

The unreliability of the DIT-2 for this sample presented a challenge to our construct validation assessment of EPS. We were, however, able to observe some meaningful partial correlations that suggest we are measuring in a similar conceptual domain as the DIT-2. Theoretically, moral perception (i.e., sensitivity) and moral cognition (i.e., judgment) should be related psychological phenomena. This relationship seemed to be supported, although the findings were not definitive. Ideally, EPS would have been able to distinguish Stages/Indices on the DIT-2. This is an area of research that requires further exploration.

With respect to the Integrity Scale, however, the results were very good. There were clear patterns of correlation between the EPS subthemes, which indicated an overall thematic pattern in relation to the Integrity Scale scores. It is clear that there is some conceptual overlap between the Integrity Scale and EPS, although the two scales are not measuring precisely the same constructs. The Integrity Scale is focused on ideological and identity aspects of the moral domain, and EPS is focused on how individuals perceive and make sense of particular decision making situations experienced in the moral domain.

Overall, the results of the analysis suggest that the EPS is measuring in the relevant conceptual domain. While additional research is always warranted, we believe that the EPS may be useful as a measure of ethical sensitivity in military specific situations and to identify individual and group perceptual preferences in terms of the thematic model. How the EPS and the thematic model may be revised and/or applied to investigate ethical decision making in non-military contexts is also a potential avenue of future research.

Discussion

Ill-defined domains are on the leading edge of Army training. When Army leaders have identified a domain as relevant to training, but have not yet fully described and defined the characteristics of the identified domain, the method we developed in this research effort can be applied to enhance the process research and training development. Our method can also be used to identify and/or design relevant metrics to assess and track trainees' learning process.

While we have focused here on a single ill-defined domain—the ethical decision making experience—the techniques we have described are applicable to other domains in which many viable solutions to problems are present and there is not a set way to determine whether one solution is better or worse than another. The learning that takes place in these types of domains often occurs from a dialogue between trainer and trainees in which problems are identified and possible solutions are discussed. In that type of training/educational context, each participant challenges and informs the other. The goal for a trainer is to facilitate and enrich the dialogue that is taking place.

What is critical to our approach is its focus on how sense making processes become relevant in real life contexts, allowing researchers and trainers to describe the domain in language that is both specific to the experience and scientifically viable. The method provides a way to structure perception/interpretation, as well as dialogue, and provides a common vocabulary for addressing and measuring concepts within an ill-defined domain. Domains with similar characteristics to ethical decision making, which may benefit from application of these techniques, include negotiation, cultural awareness, problem solving, applications of knowledge, the experience of adaptability, and/or the various outcomes that have been associated with Outcomes-Based Training.

Ethical interpretation, like any type of sense-making activity, is a complex metacognitive skill. In the past, this type of skill was learned based on life experiences of making ethical decisions, taking actions, and observing the result(s). When the skill is learned based on experiences, flexibility may take many years to develop. We developed tools to expedite how a person learns to interpret within situations that he or she recognizes as ethically relevant. Often perception operates passively, as a kind of tacit knowing or intuition in the decision making situation, very much like the moral intuition described by Haidt (2001). When operating passively, what one perceives is largely contingent on where one's attention happens to be focused, with meanings selectively emphasized in terms of what seems to be the most pressing and immediate concerns. Interpretive skills can be learned and can be applied systematically to exert control over one's own perception and sense making in a given situation.

Interpretation is a perspective taking skill that allows the perceiver to work with multiple perspectives to make sense of a situation, and then to apply rationality and judgment to decide the best course of action to solve the problem he or she faces. By using an active, interpretive approach to sense making, a decision maker intentionally considers the different possibilities for understanding his or her situation that he or she may not have otherwise considered. The difference being described here is one of passively receiving versus actively questioning what one is experiencing. The thematic model presents a way to structure how one asks questions about his or her present experience. The Ethical Perception Scale, likewise, is a tool to identify preferences in how one initially perceives situations in order to facilitate the development of an active, questioning approach to sense making. The researchers would hope that learning interpretative skills in one type of situation would then alert the learner to the possibilities of developing and applying similar self-aware interpretive techniques in other situations.

Awareness of the meanings associated with a thematic model confers the possibility for exerting self-aware control over the sense-making process. A decision maker may become a skilled perceiver and interpreter for a particular ill-defined domain. Using the thematic model as a metacognitive guide, individuals can track their perceptual/interpretive process. They might consider how, and for what reason, they have selectively focused on some thematic meanings over others and how their preferences may contribute to their understanding of the problem they are seeking to resolve. The model can cue them to address issues that may not be announcing themselves as loudly as other issues in the situation, but that may nonetheless be essential to consider when making a good decision. A thematic model provides a systematic way to cue how one goes about perceiving and making sense of a situation. It encourages the users of the model to attend carefully to different aspects of their decision making experience in order to build a comprehensive understanding of what is happening and to challenge themselves to focus on the details of how they make sense of their situation, make a decision, and justify that decision. Further, as Duffy and Raymer (2010) have noted, the process of learning is fundamentally a process of making sense of one's experience in a situation. Exposure to a thematic model—and the associated introduction to the interpretive process that it provides to both trainer and trainee—may be very useful in training/educational contexts that are ill-defined and that require problem solving and dialogue about topics that have no clear-cut answers. Interpretive skills are essential to support the learning process.

What implications does this approach have for Army research and training in ill-defined domains? With respect to ethical decision making, we developed tools to facilitate the dialogue between trainers and trainees in which the truly critical issues of Professional Military Ethics are taught. The thematic model is a description of what meaningful possibilities were present for sense making in real life ethical decision making experiences—it seeks to be neither too specific nor too general in its concepts and terminology. The model provides a common language and set of basic, first-person-oriented concepts that can be used to talk about the experience of ethical decision making in both scientific and training contexts. Further, the Ethical Perceptions Scale, based on the thematic model, may be used to assess how individuals and groups tend to choose particular perspectives in military specific ethical decision making situations and to provide feedback about these choices.

One aim of this research was to make ethical perception a topic that can be addressed systematically in Army Professional Military Ethics training in the context of the dialogues that already take place. We used empirical and scientific research methods to give definition and clarity to what was formerly an ill-defined training domain, making this domain more directly accessible to trainers and trainees. These basic techniques should be applicable to other ill-defined domains and yield similar outcomes. Moreover, the mixed method technique we described in this report is highly flexible and may be adapted in novel ways to produce the particular product the researcher and/or trainer is seeking to develop. Even the EPS items may be paired with ethical dilemmas that are specific to different areas of training. In this way, different scenarios may be developed in order to produce an "in-house" metric for use in particular courses, etc., or with particular training populations.

Another goal of this research was to develop a viable research approach that allows for development of new training protocols and metrics to address ill-defined domains in Army training and education. Using the proposed method, the core objectives of this research were realized. We sought to identify, describe, define, and measure the ways in which ethical decision making situations are perceived and interpreted by decision makers. It is a method that focuses first on defining the varieties of experience trainees have had concerning a particular ill-defined domain. Then, the researcher/trainer seeks to describe and measure the consistencies in how individuals and groups make sense of problems they encounter in that domain. As such, the technique expedites much of the supposition involved in hypothesis testing and inferential approaches to applied scientific research. This enables a researcher or trainer to identify central issues and meanings. It allows the researcher and/or trainer to narrow his or her field of possibilities very quickly to those that are most relevant to the ill-defined domain in question.

In this report, we presented a thematic model and a metric that were developed to address how decision makers perceive and interpret ethical decision making situations. We described how we developed the Ethical Perceptions Scale from the thematic model. Further, we tested the fit between the measurement and thematic models using confirmatory factor analysis. EPS was found to measure in accord with the thematic model. The EPS was reliable and correlated adequately at the level of thematic means with established measures. While this is just one psychometrically sound approach, applications of these techniques to other ill-defined domains can be more or less complex in the analytic and statistical techniques a researcher or trainer may apply, depending on the researchers' or trainers' purposes.

Applications of the Thematic Model and EPS Metric to Army Training

The model describes the Ground (or context) of the ethical decision making situation as one in which the decision makers' beliefs about the situation come into direct conflict with what is happening in the situation. What they believe should have happened is what is *right* for them and what they perceive actually to be happening is *wrong* for them. Within this context, five central themes may become salient. These are: (1) Choosing to Act; (2) Assessing the Seriousness of the Situation; (3) Defining the Ethical Self; (4) Evaluating Relationships with Others; (5) Thinking Through Institutional Rules and Laws.[8] Each of these themes are defined in terms of a set of related subthemes.

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[8] The thematic model can be remembered with the acronym CADET.

The most central theme in the model is Choosing to Act. The subthemes of Choosing to Act are Overcoming Uncertainty[9], Resisting Pressure and Temptation, Taking Responsibility, and Taking Charge. These subthemes may be considered as responses to the basic experienced concerns that are present for the decision makers, and based on resolving these concerns each of the other themes/subthemes of the model become salient. For instance, in Choosing to Act, a decision maker may become aware that they do not know all that they feel they need to know about the situation. This awareness relates to being aware that they need to overcome their uncertainty about the situation. When focused on issues related to Overcoming Uncertainty, they may begin Assessing the Seriousness of the Problem in terms of its related subthemes of How Common is the problem, Who is Benefitted/Harmed in the situation, and the Potential Consequences of Actions they may take in the situation. This same pattern of experienced problem/resolution holds for the other three subthemes of Choosing to Act, with the Taking Charge subtheme being related to Defining the Ethical Self, Resisting Pressure and Temptation being related to Evaluating Relationships with Others, and finally, Taking Responsibility being related to Thinking Through Institutional Rules & Laws.

Based on the thematic model, we were able to develop a metric to measure the ways in which respondents perceive and interpret military specific ethical dilemmas and formulate a response to these dilemmas. EPS also allowed us to identify patterns in individual and group responses to these types of dilemmas. Army trainers and researchers may use the EPS to provide USMA, ROTC, or OTC Cadets insight into their interpretive process is a significant step toward articulating the relevant aspects of this ill-defined domain and addressing it in greater depth in training. An awareness of how one makes sense of these types of situations is useful to help one approach novel decision making situations with an open and perceptually sensitive perspective. Various training methods and applications of the thematic model as well as the potential benefits and refinements of the thematic model to be used to facilitate Professional Military Ethics training should be addressed in future research.

The EPS may be useful for providing targeted feedback to enhance Cadets' perceptual sensitivity in ethical decision making situations, enabling trainers to give specific recommendations about sense making processes. The thematic model and the EPS together may be used to facilitate dialogue about the requirements of the Army with respect to how decisions are made in ethically complex situations. The thematic model may also be used to structure training and to structure discussions in After Action Reviews. It provides the trainer a way to track what topics have been covered and what topics remain to be covered in relation to the themes/subthemes of the model. Another possible area of future research concerns whether organized discussions of the type being described here may facilitate transfer of this training/interpretive technique to operational contexts.

The EPS, developed based on the thematic model, indicated that overall Cadets are very sensitive to issues concerning Personal Responsibility and Potential Consequences of Actions when making ethical decisions in military specific situations. Even so, Cadets will vary in how

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[9] This subtheme was not found to be contributing to the measurement model, yet it may still be important to consider in future evaluations using the thematic model for different research/training contexts. Using different scenarios or applying the EPS in a different training context may elicit this theme for trainees.

they individually make sense of these types of dilemmas. The EPS may be used to provide feedback to Cadets concerning how they are similar to and different from their peers with respect to interpretive preferences. It allows a trainer to specify the themes a trainee emphasizes with respect to his or her own average thematic response as well as with respect to his or her peers. This type of approach helps a trainer to describe those differences to Cadets in such a way that the Cadet may develop targeted plans for self-development.

Refer to Figure 3 and consider the following example of feedback that could be given to two anonymous Cadets based on their EPS thematic score patterns. Figure 3 presents a relationship between two randomly selected Cadets' EPS score patterns in comparison to the thematic score pattern for their peers.
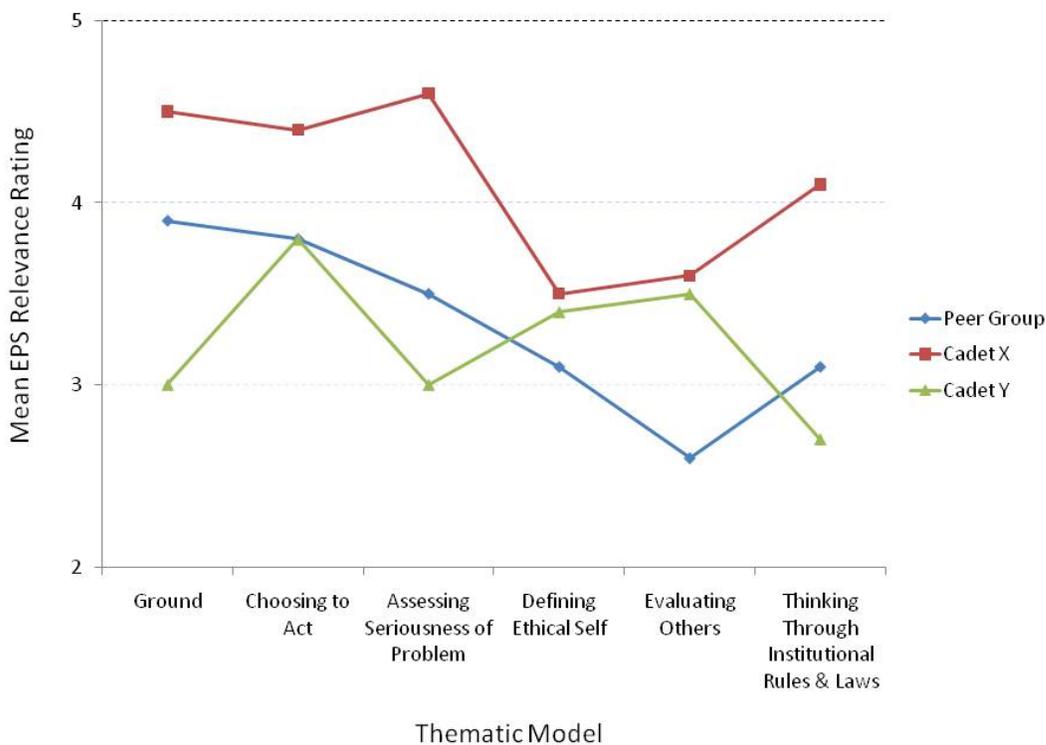
Figure 3. Hypothetical Thematic Score Patterns Used to Compare Cadets X and Y to their Peer Group

The mean relevance ratings for Cadet X tend to be higher overall compared to those of his or her peer group. A trainer could explore with this Cadet the trend indicated by his or her pattern of higher than average scores and what it is about the particular scenarios that were highly salient to him or her. It may also be useful to explore the themes that are emphasized and de-emphasized relative to the Cadet's own average response trend. Comparing this Cadet to his or her own trend, it appears that Defining the Ethical Self is his or her least emphasized theme, and it has a similar level to Evaluating Relationships with Others. The trainer could target meanings associated with these themes to explore how this Cadet might come to consider himself or herself as more salient in the decision making situation. The trainer could emphasize meanings associated with personal

integrity, consistency and conviction, and learning and change in evaluating a hypothetical ethical dilemma with Cadet X in order to demonstrate the perceptual and evaluative process associated with this theme and set of subthemes. The trainer and trainee could also discuss how the decision making process can be influenced by others, and encourage the Cadet to consider more often how others can affect and/or influence his or her decision making process.

As a second example, Cadet Y scored lower on the Ground as well as on themes related to Assessing the Seriousness of the Problem, and Thinking Through Institutional Rules & Laws when compared to his or her peer group. As with Cadet X, the trainer could focus on these themes in evaluating an ethical dilemma with Cadet Y to demonstrate how these themes are important to the perceptual and evaluative process. In addition, Cadet Y scored much higher on the theme for Evaluating Relationships with Others. A trainer might also want to explore what it was about the dilemmas that encouraged Cadet Y to place so much emphasis on this theme. In doing so, the trainer would not want to discourage this perspective unless discussion with the Cadet indicated that the emphasis he or she places on the theme could be detrimental to a good ethical decision making process, i.e., he or she might be susceptible to pressures from others, etc.

The thematic model and EPS together provide a set of tools to open and facilitate a dialogue between Cadets and trainers. They provide a common set of terms with which to discuss issues related to how situations can be perceived and interpreted and how our interpretive choices can influence our decision making process. This dialogue can be developed in such a way as to reinforce principles of Professional Military Ethics and to motivate Cadets to practice different styles of interpretation in everyday life ethical decision making situations. Having developed facility with the model and an understanding of their own interpretive preferences, Cadets will be better prepared to adapt to the challenges of novel and unpredictable circumstances they will encounter in their careers as Army Officers and to make well-considered ethical decisions in those situations.

The Broader Context of the Approach

This research used a technique that finds its starting point in human perceptual and interpretive experiences, rather than in cognitive processes. That said, however, in everyday decision making situations, a person's processes of perception and cognition are indivisible, and are always mutually influencing each other. A psychological research technique that focuses on perception and interpretation is significant to Army training when we consider it as a technique to focus on how trainees make sense of the training context and the meaning of what is being trained. Such an approach stays very close to the matter at hand, and does not propose a mechanistic theory that is distant from the ways in which trainees experience making sense of ill-defined domains and associated problems. It is an approach that can help us to identify the relevant characteristics of the domain that allow trainees to identify the structure of meanings that are essential to facilitate in-depth processing of information, that is, to interpret their situation in a personally meaningful way (cf. Craik & Lockhart, 1972).

There are many complexities present in a training situation that focuses on ethical decision making in Professional Military Ethics contexts, or any ill-defined domain in which a significant degree of ambiguity exists with respect to what counts as a viable solution to a

problem. Good training requires engagement with problems that have a particular character. For example, Duffy and Raymer (2010) have noted that good problems to use for training have five common characteristics: (1) sufficient complexity, (2) clarity of requirements, (3) able to engage learners in the key concepts, (4) authenticity (i.e., drawn from real world experiences), and (5) presentation as a real problem requiring a novel solution and not just an academic exercise.

Various approaches to training can help to prepare a trainee to decide in high stakes situations. For example, they can be exposed to case studies or hypothetical descriptions of what others have done and what happened as a result. Even better, trainees can role play situations and learn from mistakes in a context that lessens the severity of consequences and that provides detailed expert feedback (e.g., After Action Reviews). An experienced trainer may engage in the extraordinarily difficult task of trying to anticipate all that trainees could encounter in combat or peacekeeping operations, exposing trainees to unfamiliar situations, and working with them to provide reasonable solutions before they have to face these situations operationally. A trainer can work to train precisely what the doctrine and law requires and how trainees can adapt to and decide in unexpected and unpredictable circumstances.

Nonetheless, the fact remains that the circumstances in which these new Officers will ultimately demonstrate their abilities are going to be unpredictable. To apply well what they have learned will require them to have highly developed perceptual and interpretive skills, a critical component of what it means to be an adaptive decision maker and problem solver. Their knowledge will need to be both practical and founded on general principles that can help them begin to apply their understandings to situations that are different in scope and content from those addressed in class. It was our goal here to develop a method to identify, describe, define, and measure what is involved in the interpretive process that allows trainees to make sense of novel situations and to apply their knowledge in these situations. Understanding the interpretive process trainees engage in is essential to research and practice in Army training and may contribute to the Army's ability to develop and execute training concerning ethical decision making and other similarly ill-defined domains.

In a follow-on experiment, which will be presented in a forthcoming report, we tested the viability of the thematic model and metric to enhance ethical awareness in the USMA West Point Negotiation Project Course. The findings are promising. Results suggest that training is ideal when it can go beyond an abstract presentation of information and produce, for both trainer and trainee, a memorable and compelling personal and shared experience. Scenario based training with clear and concrete examples, open-discussions, and expert feedback is essential to facilitate learning; when this approach is combined with an understanding of how situations are perceived, interpreted, and made sense of, the learning may be strengthened through clear and consistent feedback and well guided discussions. Army leaders know it is important that training experiences should accurately trace the shape of lived experiences. It is the basis of the Army's motto: *train as we fight*. Here we developed a method, model, and metric for Army research and training that would trace as closely as possible the core experiences and understandings defining what was an ill-defined domain: the sense making process that decision makers engage in when making ethical decisions in both everyday life and in military specific situations.

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Acronyms

AK-47	Avtomat Kalashnikova (Soviet 7.62mm assault rifle)
AMOS	Analysis of Moment Structures (SPSS software)
CFI	Comparative Fit Index; a statistical index
CMIN/df	Chi-Square to Degree of Freedom Ratio; a statistical index
DIT-2	Defining Issues Test (Version 2)
EPS	Ethical Perceptions Scale
Hi90	Upper bound of confidence interval for reported RMSEA statistic
HQ	Headquarters
IFI Δ^2	Incremental Fit Index; a statistical index
Lo90	Lower bound of confidence interval for reported RMSEA statistic
M	Mean; a statistical index
N	Number of participants (sample size)
P #	Participant number
PL100	Introductory course in Behavioral Sciences and Leadership (USMA)
ROE	Rules of Engagement
RMSEA	Root Mean Square Error of Approximation; a statistical index
RPG-29	Vampir Russian Rocket Propelled Grenade launcher
SD	Standard Deviation; a statistical index
SPSS	Statistical Package for the Social Sciences
SRMR	Standardized Root Mean Square; a statistical index
USMA	United States Military Academy

APPENDIX A

ETHICAL PERCEPTIONS SCALE

Versions: 3 December 2009 & 11 February 2010

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ETHICAL PERCEPTIONS SCALE
(Version: 3 DEC 09)

Participant Identifier:_____   **Date:**_____

INSTRUCTIONS: Please read the following four scenarios and respond to the questions following each scenario. When you read each scenario, do your best to imagine yourself in the situation described.

SCENARIO 1

You lead a training team that works with local national Soldiers; you and your team have developed strong relationships with them over time. They trust you and depend on you for equipment, money, and supplies. One day, a serious call comes in from an American trainer working with the civilian police. A European civilian security group, contracted to escort convoys, had been travelling through your area at high speed with loaded weapons. They were travelling from a very hostile into a less hostile area, but had not called ahead to coordinate their movements with the local authorities. Some national Army officers attempted to approach the contractors' vehicle and were fired on by the contractors. A LTC in the national Army was hit and is in critical condition. The national Army officers contacted the civilian police who took the contractors into custody and moved them to a police training compound. When your team arrives at the compound, approximately 300 local citizens and Soldiers are outside demanding "justice," many of whom are friends and family of the LTC who was shot. You know some of them and they know you. Inside, a group of Soldiers from the national Army is pressuring the police to turn over the contractors. The police are resisting their demands, and insist that they first need detailed statements from everyone involved before making any decisions regarding custody. Emotions are running high all around and you know the contractors will probably be executed if they are turned over.

(1) Please rate how easy/difficult it was for you to imagine yourself in this scenario:

Very Easy	Somewhat Easy	Average	Somewhat Difficult	Very Difficult
1	2	3	4	5

(2) Briefly describe the most important ethical dilemma you see in this scenario (in 1 to 3 sentences).

(3) Briefly describe how you would respond to this dilemma (in 1 to 3 sentences).

(4) Briefly explain why you believe your response is the correct one (in 1 to 3 sentences).

PLEASE CONTINUE ON FOLLOWING PAGE

A-2

INSTRUCTIONS: Please rate how relevant each of the following concerns was for you when you read and responded to Scenario 1.

		Not Relevant	Somewhat Relevant	Relevant	Very Relevant	Essential
1	Feeling confused and/or unsure of what I should do	1	2	3	4	5
2	Taking control and/or handling effectively my limited power and resources	1	2	3	4	5
3	Evaluating how bad or good the possible consequences could be	1	2	3	4	5
4	Incorporating lessons learned from experiences I have had and/or cases I know about	1	2	3	4	5
5	Feeling a sense of connection and loyalty to my colleagues, friends, and peers	1	2	3	4	5
6	Maintaining focus on what is truly ethically right and wrong	1	2	3	4	5
7	Needing to respond quickly because pressure was building and/or emotions were escalating	1	2	3	4	5
8	Wondering how often this type of situation may happen	1	2	3	4	5
9	Considering how my decision(s) may affect my integrity	1	2	3	4	5
10	Concern about what others may say and/or think about what I do	1	2	3	4	5
11	Being obligated by rules and laws to resolve this situation appropriately	1	2	3	4	5
12	Determining the best ethical idea of *right* to address what is happening	1	2	3	4	5
13	Being personally responsible for my decision and what happens as a result of it	1	2	3	4	5
14	Recognizing that this situation is full of trade-offs and pitfalls for everyone involved	1	2	3	4	5
15	Sticking to my beliefs and being consistent in my actions	1	2	3	4	5
16	Evaluating and/or judging the behavior of others	1	2	3	4	5
17	Not making myself and my team subject to legal consequences and/or punishments as a result of what we do	1	2	3	4	5

PLEASE CONTINUE ON FOLLOWING PAGE

It is the first days of a civil war. You are rescuing and protecting displaced noncombatants at risk of being slaughtered by roving militias. ROE states that you may use deadly force only if you are being directly attacked. Due to communications problems and blocked resupply routes, you are effectively cut off from HQ. They had promised you support in 7 to 10 days, but it may take longer. You set up an area behind your camp to protect noncombatants, especially families with children, and can maintain a good defensive perimeter around that area. However, as the number of individuals you rescue grows, food and water supplies run short, and sanitation is poor. At 72 hours, the camp has become crowded and cholera breaks out. The medical specialists are equipped only to handle acute traumatic injuries, such as broken bones or gunshot wounds. While planning your next rescue mission, a medical specialist warns you: "Sir/Ma'am, the children, particularly the infants, are dying from dehydration faster than the adults. They are only able to survive about 36 hours under these conditions. Five have died in the past hour." The news is chilling. The specialist continues "…so that they do not die of cholera, we may need to consider hiding the healthy children outside the protected area."

(1) Please rate how easy/difficult it was for you to imagine yourself in this scenario:

Very Easy	Somewhat Easy	Average	Somewhat Difficult	Very Difficult
1	2	3	4	5

(2) Briefly describe the most important ethical dilemma you see in this scenario (in 1 to 3 sentences).

(3) Briefly describe how you would respond to this dilemma (in 1 to 3 sentences).

(4) Briefly explain why you believe your response is the correct one (in 1 to 3 sentences).

PLEASE CONTINUE ON FOLLOWING PAGE

INSTRUCTIONS: Please rate how relevant each of the following concerns was for you when you read and responded to Scenario 2.

		Not Relevant	Somewhat Relevant	Relevant	Very Relevant	Essential
1	Being personally responsible for my decision and what happens as a result of it	1	2	3	4	5
2	Concern about what others may say and/or think about what I do	1	2	3	4	5
3	Needing to respond quickly because pressure was building and/or emotions were escalating	1	2	3	4	5
4	Taking control and/or handling effectively my limited power and resources	1	2	3	4	5
5	Incorporating lessons learned from experiences I have had and/or cases I know about	1	2	3	4	5
6	Evaluating and/or judging the behavior of others	1	2	3	4	5
7	Feeling confused and/or unsure of what I should do	1	2	3	4	5
8	Wondering how often this type of situation may happen	1	2	3	4	5
9	Sticking to my beliefs and being consistent in my actions	1	2	3	4	5
10	Feeling a sense of connection and loyalty to my colleagues, friends, and peers	1	2	3	4	5
11	Not making myself and my team subject to legal consequences and/or punishments as a result of what we do	1	2	3	4	5
12	Determining the best ethical idea of *right* to address what is happening	1	2	3	4	5
13	Recognizing that this situation is full of trade-offs and pitfalls for everyone involved	1	2	3	4	5
14	Considering how my decision(s) may affect my integrity	1	2	3	4	5
15	Being obligated by rules and laws to resolve this situation appropriately	1	2	3	4	5
16	Understanding the ways in which this scenario is similar to and different from the previous one	1	2	3	4	5
17	Maintaining focus on what is truly ethically right and wrong	1	2	3	4	5
18	Evaluating how bad or good the possible consequences could be	1	2	3	4	5

PLEASE CONTINUE ON FOLLOWING PAGE

SCENARIO 3

You are on a peace-keeping mission, setting up a demilitarized zone in accord with a ceasefire and disarmament agreement signed between combatant groups. You are to enforce the ceasefire and to remain neutral. ROE for the mission allows deadly force, but only in self-defense. Your job is to look for anyone with a weapon and seize the weapon. You begin a cordon and search of a small village. A Soldier radios in and reports that he has observed 10 possible combatants all armed with AK-47s and three of whom also have very advanced Russian RPG-29s. You do not have enough Soldiers in the perimeter to fend off a coordinated attack, especially if the combatant group gets any larger. The village leader follows alongside you, pleading that you not take the weapons until you can assure their security. You call in for authorization to defend the villagers in case something happens. The authorization is given, but HQ insists that you to continue with the disarmament mission.

(1) Please rate how easy/difficult it was for you to imagine yourself in this scenario:

Very Easy	Somewhat Easy	Average	Somewhat Difficult	Very Difficult
1	2	3	4	5

(2) Briefly describe the most important ethical dilemma you see in this scenario (in 1 to 3 sentences).

(3) Briefly describe how you would respond to this dilemma (in 1 to 3 sentences).

(4) Briefly explain why you believe your response is the correct one (in 1 to 3 sentences).

PLEASE CONTINUE ON FOLLOWING PAGE

A-6

INSTRUCTIONS: Please rate how relevant each of the following concerns was for you when you read and responded to Scenario 3.

		Not Relevant	Somewhat Relevant	Relevant	Very Relevant	Essential
1	Evaluating how bad or good the possible consequences could be	1	2	3	4	5
2	Considering how my decision(s) may affect my integrity	1	2	3	4	5
3	Recognizing that this situation is full of trade-offs and pitfalls for everyone involved	1	2	3	4	5
4	Sticking to my beliefs and being consistent in my actions	1	2	3	4	5
5	Wondering how often this type of situation may happen	1	2	3	4	5
6	Incorporating lessons learned from experiences I have had and/or cases I know about	1	2	3	4	5
7	Taking control and/or handling effectively my limited power and resources	1	2	3	4	5
8	Concern about what others may say and/or think about what I do	1	2	3	4	5
9	Understanding the ways in which this scenario is similar to and different from the previous two	1	2	3	4	5
10	Maintaining focus on what is truly ethically right and wrong	1	2	3	4	5
11	Being personally responsible for my decision and what happens as a result of it	1	2	3	4	5
12	Evaluating and/or judging the behavior of others	1	2	3	4	5
13	Determining the best ethical idea of *right* to address what is happening	1	2	3	4	5
14	Needing to respond quickly because pressure was building and/or emotions were escalating	1	2	3	4	5
15	Feeling a sense of connection and loyalty to my colleagues, friends, and peers	1	2	3	4	5
16	Feeling confused and/or unsure of what I should do	1	2	3	4	5
17	Being obligated by rules and laws to resolve this situation appropriately	1	2	3	4	5
18	Not making myself and my team subject to legal consequences and/or punishments as a result of what we do	1	2	3	4	5

PLEASE CONTINUE ON FOLLOWING PAGE

SCENARIO 4

You and four Soldiers are manning a checkpoint, surrounded on two sides by high-rise apartment buildings. A man comes into your area and he is staggering and seems lost, which strikes you as very odd. He is carrying a semi-automatic rifle. After a few minutes of chatting with other civilians in the area, the locals clear out and he begins waving his weapon in the air and yelling. He is not flagging you, but he is being reckless and you feel threatened. You order him to stop and to lay down his weapon. He yells something at you, and continues with his antics. Just as you are preparing to fire a warning shot, you begin taking fire from the left and two of your Soldiers are hit. "GET DOWN! STAY DOWN!" you order. You are having trouble locating where the fire is coming from, and you do not want to return fire randomly into a civilian apartment building. Your only egress route to safety is being blocked by the man, who, seeming too drunk or crazy to understand that you are in fact taking fire and have been hit, begins firing his own weapon into the air. ROE has authorized you to kill in self-defense only, but the man who blocks your way to safety may or may not be intending to do you harm. He is putting your life in danger by being in the wrong place at the wrong time. He may just be drunk or mentally ill; yet it seems strange that he is not taking fire as well. If you and your men charge him, he will have a direct, close-range shot on any one of you. The Soldiers that were hit were being administered buddy aid; the reality is that you won't be able to move very fast once you get going. You yell at the man that he will be shot if he does not get out of the way and you take aim. He doesn't seem to notice or to care, and you are still taking fire.

(1) Please rate how easy/difficult it was for you to imagine yourself in this scenario:

Very Easy	Somewhat Easy	Average	Somewhat Difficult	Very Difficult
1	2	3	4	5

(2) Briefly describe the most important ethical dilemma you see in this scenario (in 1 to 3 sentences).

(3) Briefly describe how you would respond to this dilemma (in 1 to 3 sentences).

(4) Briefly explain why you believe your response is the correct one (in 1 to 3 sentences).

PLEASE CONTINUE ON FOLLOWING PAGE

A-8

INSTRUCTIONS: Please rate how relevant each of the following concerns was for you when you read and responded to Scenario 4.

		Not Relevant	Somewhat Relevant	Relevant	Very Relevant	Essential
1	Needing to respond quickly because pressure was building and/or emotions were escalating	1	2	3	4	5
2	Evaluating and/or judging the behavior of others	1	2	3	4	5
3	Feeling confused and/or unsure of what I should do	1	2	3	4	5
4	Being personally responsible for my decision and what happens as a result of it	1	2	3	4	5
5	Concern about what others may say and/or think about what I do	1	2	3	4	5
6	Feeling a sense of connection and loyalty to my colleagues, friends, and peers	1	2	3	4	5
7	Determining the best ethical idea of *right* to address what is happening	1	2	3	4	5
8	Taking control and/or handling effectively my limited power and resources	1	2	3	4	5
9	Incorporating lessons learned from experiences I have had and/or cases I know about	1	2	3	4	5
10	Being obligated by rules and laws to resolve this situation appropriately	1	2	3	4	5
11	Maintaining focus on what is truly ethically right and wrong	1	2	3	4	5
12	Wondering how often this type of situation may happen	1	2	3	4	5
13	Sticking to my beliefs and being consistent in my actions	1	2	3	4	5
14	Not making myself and my team subject to legal consequences and/or punishments as a result of what we do	1	2	3	4	5
15	Recognizing that this situation is full of trade-offs and pitfalls for everyone involved	1	2	3	4	5
16	Considering how my decision(s) may affect my integrity	1	2	3	4	5
17	Understanding the ways in which this scenario is similar to and different from the previous three	1	2	3	4	5
18	Evaluating how bad or good the possible consequences of this situation could be	1	2	3	4	5

THANK YOU FOR YOUR PARTICIPATION

ETHICAL PERCEPTIONS SCALE
(Version: 11 FEB 10)

Participant Identifier:_____   **Date:**_____

INSTRUCTIONS: Please read the following four scenarios and respond to the questions following each scenario. When you read each scenario, do your best to imagine yourself in the situation described.

SCENARIO 1

You lead a training team that works with local national Soldiers; you and your team have developed strong relationships with them over time. They trust you and depend on you for equipment, money, and supplies. One day, a serious call comes in from an American trainer working with the civilian police. A European civilian security group, contracted to escort convoys, had been travelling through your area at high speed with loaded weapons. They were travelling from a very hostile into a less hostile area, but had not called ahead to coordinate their movements with the local authorities. Some national Army officers attempted to approach the contractors' vehicle and were fired on by the contractors. A LTC in the national Army was hit and is in critical condition. The national Army officers contacted the civilian police who took the contractors into custody and moved them to a police training compound. When your team arrives at the compound, approximately 300 local citizens and Soldiers are outside demanding "justice," many of whom are friends and family of the LTC who was shot. You know some of them and they know you. Inside, a group of Soldiers from the national Army is pressuring the police to turn over the contractors. The police are resisting their demands, and insist that they first need detailed statements from everyone involved before making any decisions regarding custody. Emotions are running high all around and you know the contractors will probably be executed if they are turned over.

In response to this scenario, please rate how <u>easy/difficult</u> it is (or would be) to:

		Very Easy	Somewhat Easy	Average	Somewhat Difficult	Very Difficult
1	Imagine yourself in this scenario	1	2	3	4	5
2	Identify the most important ethical dilemma	1	2	3	4	5
3	Formulate a response to the dilemma you identified	1	2	3	4	5
4	Explain to someone else why you believe this response is the correct one for the scenario	1	2	3	4	5

PLEASE CONTINUE ON FOLLOWING PAGE

INSTRUCTIONS: Please rate how relevant each of the following concerns was for you when you read and responded to Scenario 1.

		Not Relevant	Somewhat Relevant	Relevant	Very Relevant	Essential
1	Feeling confused and/or unsure of what I should do	1	2	3	4	5
2	Taking control and/or handling effectively my limited power and resources	1	2	3	4	5
3	Evaluating how bad or good the possible consequences could be	1	2	3	4	5
4	Incorporating lessons learned from experiences I have had and/or cases I know about	1	2	3	4	5
5	Feeling a sense of connection and loyalty to my colleagues, friends, and peers	1	2	3	4	5
6	Maintaining focus on what is truly ethically right and wrong	1	2	3	4	5
7	Needing to respond quickly because pressure was building and/or emotions were escalating	1	2	3	4	5
8	Wondering how often this type of situation may happen	1	2	3	4	5
9	Considering how my decision(s) may affect my integrity	1	2	3	4	5
10	Concern about what others may say and/or think about what I do	1	2	3	4	5
11	Being obligated by rules and laws to resolve this situation appropriately	1	2	3	4	5
12	Determining the best ethical idea of *right* to address what is happening	1	2	3	4	5
13	Being personally responsible for my decision and what happens as a result of it	1	2	3	4	5
14	Recognizing that this situation is full of trade-offs and pitfalls for everyone involved	1	2	3	4	5
15	Sticking to my beliefs and being consistent in my actions	1	2	3	4	5
16	Evaluating and/or judging the behavior of others	1	2	3	4	5
17	Not making myself and my team subject to legal consequences and/or punishments as a result of what we do	1	2	3	4	5

PLEASE CONTINUE ON FOLLOWING PAGE

SCENARIO 2

It is the first days of a civil war. You are rescuing and protecting displaced noncombatants at risk of being slaughtered by roving militias. ROE states that you may use deadly force only if you are being directly attacked. Due to communications problems and blocked resupply routes, you are effectively cut off from HQ. They had promised you support in 7 to 10 days, but it may take longer. You set up an area behind your camp to protect noncombatants, especially families with children, and can maintain a good defensive perimeter around that area. However, as the number of individuals you rescue grows, food and water supplies run short, and sanitation is poor. At 72 hours, the camp has become crowded and cholera breaks out. The medical specialists are equipped only to handle acute traumatic injuries, such as broken bones or gunshot wounds. While planning your next rescue mission, a medical specialist warns you: "Sir/Ma'am, the children, particularly the infants, are dying from dehydration faster than the adults. They are only able to survive about 36 hours under these conditions. Five have died in the past hour." The news is chilling. The specialist continues "…so that they do not die of cholera, we may need to consider hiding the healthy children outside the protected area."

In response to this scenario, please rate how easy/difficult it is (or would be) to:

		Very Easy	Somewhat Easy	Average	Somewhat Difficult	Very Difficult
1	Imagine yourself in this scenario	1	2	3	4	5
2	Identify the most important ethical dilemma	1	2	3	4	5
3	Formulate a response to the dilemma you identified	1	2	3	4	5
4	Explain to someone else why you believe this response is the correct one for the scenario	1	2	3	4	5

PLEASE CONTINUE ON FOLLOWING PAGE

A-12

INSTRUCTIONS: Please rate how relevant each of the following concerns was for you when you read and responded to Scenario 2.

		Not Relevant	Somewhat Relevant	Relevant	Very Relevant	Essential
1	Being personally responsible for my decision and what happens as a result of it	1	2	3	4	5
2	Concern about what others may say and/or think about what I do	1	2	3	4	5
3	Needing to respond quickly because pressure was building and/or emotions were escalating	1	2	3	4	5
4	Taking control and/or handling effectively my limited power and resources	1	2	3	4	5
5	Incorporating lessons learned from experiences I have had and/or cases I know about	1	2	3	4	5
6	Evaluating and/or judging the behavior of others	1	2	3	4	5
7	Feeling confused and/or unsure of what I should do	1	2	3	4	5
8	Wondering how often this type of situation may happen	1	2	3	4	5
9	Sticking to my beliefs and being consistent in my actions	1	2	3	4	5
10	Feeling a sense of connection and loyalty to my colleagues, friends, and peers	1	2	3	4	5
11	Not making myself and my team subject to legal consequences and/or punishments as a result of what we do	1	2	3	4	5
12	Determining the best ethical idea of *right* to address what is happening	1	2	3	4	5
13	Recognizing that this situation is full of trade-offs and pitfalls for everyone involved	1	2	3	4	5
14	Considering how my decision(s) may affect my integrity	1	2	3	4	5
15	Being obligated by rules and laws to resolve this situation appropriately	1	2	3	4	5
16	Understanding the ways in which this scenario is similar to and different from the previous one	1	2	3	4	5
17	Maintaining focus on what is truly ethically right and wrong	1	2	3	4	5
18	Evaluating how bad or good the possible consequences could be	1	2	3	4	5

PLEASE CONTINUE ON FOLLOWING PAGE

SCENARIO 3

You are on a peace-keeping mission, setting up a demilitarized zone in accord with a ceasefire and disarmament agreement signed between combatant groups. You are to enforce the ceasefire and to remain neutral. ROE for the mission allows deadly force, but only in self-defense. Your job is to look for anyone with a weapon and seize the weapon. You begin a cordon and search of a small village. A Soldier radios in and reports that he has observed 10 possible combatants approaching the perimeter of the cordon. The possible combatants are armed with AK-47s and three have very advanced Russian RPG-29s. You do not have enough Soldiers in the perimeter to fend off a coordinated attack, especially if the combatant group gets any larger. The village leader follows alongside you, pleading that you not take the weapons until you can assure their security. You call in for authorization to defend the villagers in case something happens. The authorization is given, but HQ insists that you continue with the disarmament mission.

In response to this scenario, please rate how <u>easy/difficult</u> it is (or would be) to:

		Very Easy	Somewhat Easy	Average	Somewhat Difficult	Very Difficult
1	Imagine yourself in this scenario	1	2	3	4	5
2	Identify the most important ethical dilemma	1	2	3	4	5
3	Formulate a response to the dilemma you identified	1	2	3	4	5
4	Explain to someone else why you believe this response is the correct one for the scenario	1	2	3	4	5

PLEASE CONTINUE ON FOLLOWING PAGE

INSTRUCTIONS: Please rate how relevant each of the following concerns was for you when you read and responded to Scenario 3.

		Not Relevant	Somewhat Relevant	Relevant	Very Relevant	Essential
1	Evaluating how bad or good the possible consequences could be	1	2	3	4	5
2	Considering how my decision(s) may affect my integrity	1	2	3	4	5
3	Recognizing that this situation is full of trade-offs and pitfalls for everyone involved	1	2	3	4	5
4	Sticking to my beliefs and being consistent in my actions	1	2	3	4	5
5	Wondering how often this type of situation may happen	1	2	3	4	5
6	Incorporating lessons learned from experiences I have had and/or cases I know about	1	2	3	4	5
7	Taking control and/or handling effectively my limited power and resources	1	2	3	4	5
8	Concern about what others may say and/or think about what I do	1	2	3	4	5
9	Understanding the ways in which this scenario is similar to and different from the previous two	1	2	3	4	5
10	Maintaining focus on what is truly ethically right and wrong	1	2	3	4	5
11	Being personally responsible for my decision and what happens as a result of it	1	2	3	4	5
12	Evaluating and/or judging the behavior of others	1	2	3	4	5
13	Determining the best ethical idea of *right* to address what is happening	1	2	3	4	5
14	Needing to respond quickly because pressure was building and/or emotions were escalating	1	2	3	4	5
15	Feeling a sense of connection and loyalty to my colleagues, friends, and peers	1	2	3	4	5
16	Feeling confused and/or unsure of what I should do	1	2	3	4	5
17	Being obligated by rules and laws to resolve this situation appropriately	1	2	3	4	5
18	Not making myself and my team subject to legal consequences and/or punishments as a result of what we do	1	2	3	4	5

PLEASE CONTINUE ON FOLLOWING PAGE

SCENARIO 4

You and four Soldiers are manning a checkpoint, surrounded on two sides by high-rise apartment buildings. A man comes into your area and he is staggering and seems lost, which strikes you as very odd. He is carrying a semi-automatic rifle. After a few minutes of chatting with other civilians in the area, the locals clear out and he begins waving his weapon in the air and yelling. He is not flagging you, but he is being reckless and you feel threatened. You order him to stop and to lay down his weapon. He yells something at you, and continues with his antics. Just as you are preparing to fire a warning shot, you begin taking fire from the left and two of your Soldiers are hit. "GET DOWN! STAY DOWN!" you order. You are having trouble locating where the fire is coming from, and you do not want to return fire randomly into a civilian apartment building. Your only egress route to safety is being blocked by the man, who, seeming too drunk or crazy to understand that you are in fact taking fire and have been hit, begins firing his own weapon into the air. ROE has authorized you to kill in self-defense only, but the man who blocks your way to safety may or may not be intending to do you harm. He is putting your life in danger by being in the wrong place at the wrong time. He may just be drunk or mentally ill; yet it seems strange that he is not taking fire as well. If you and your men charge him, he will have a direct, close-range shot on any one of you. The Soldiers that were hit were being administered buddy aid; the reality is that you won't be able to move very fast once you get going. You yell at the man that he will be shot if he does not get out of the way and you take aim. He doesn't seem to notice or to care, and you are still taking fire.

In response to this scenario, please rate how <u>easy/difficult</u> it is (or would be) to:

		Very Easy	Somewhat Easy	Average	Somewhat Difficult	Very Difficult
1	Imagine yourself in this scenario	1	2	3	4	5
2	Identify the most important ethical dilemma	1	2	3	4	5
3	Formulate a response to the dilemma you identified	1	2	3	4	5
4	Explain to someone else why you believe this response is the correct one for the scenario	1	2	3	4	5

PLEASE CONTINUE ON FOLLOWING PAGE

INSTRUCTIONS: Please rate how relevant each of the following concerns was for you when you read and responded to Scenario 4.

		Not Relevant	Somewhat Relevant	Relevant	Very Relevant	Essential
1	Needing to respond quickly because pressure was building and/or emotions were escalating	1	2	3	4	5
2	Evaluating and/or judging the behavior of others	1	2	3	4	5
3	Feeling confused and/or unsure of what I should do	1	2	3	4	5
4	Being personally responsible for my decision and what happens as a result of it	1	2	3	4	5
5	Concern about what others may say and/or think about what I do	1	2	3	4	5
6	Feeling a sense of connection and loyalty to my colleagues, friends, and peers	1	2	3	4	5
7	Determining the best ethical idea of *right* to address what is happening	1	2	3	4	5
8	Taking control and/or handling effectively my limited power and resources	1	2	3	4	5
9	Incorporating lessons learned from experiences I have had and/or cases I know about	1	2	3	4	5
10	Being obligated by rules and laws to resolve this situation appropriately	1	2	3	4	5
11	Maintaining focus on what is truly ethically right and wrong	1	2	3	4	5
12	Wondering how often this type of situation may happen	1	2	3	4	5
13	Sticking to my beliefs and being consistent in my actions	1	2	3	4	5
14	Not making myself and my team subject to legal consequences and/or punishments as a result of what we do	1	2	3	4	5
15	Recognizing that this situation is full of trade-offs and pitfalls for everyone involved	1	2	3	4	5
16	Considering how my decision(s) may affect my integrity	1	2	3	4	5
17	Understanding the ways in which this scenario is similar to and different from the previous three	1	2	3	4	5
18	Evaluating how bad or good the possible consequences of this situation could be	1	2	3	4	5

THANK YOU FOR YOUR PARTICIPATION

APPENDIX B

SCHLENKER'S INTEGRITY SCALE

Scale Presented with Permission of Barry Schlenker, Ph.D.
(Professor Emeritus, University of Florida, Gainsville, FL)

Requested Citations:

Schlenker, B.R. (2008). Integrity and character: implications of principled and expedient
ethical ideologies. *Journal of Social and Clinical Psychology, 27 (10),* 1078-1125.

Schlenker, B.R., Miller, M.L., & Johnson, R.M. (2009). Moral identity, integrity, and personal
responsibility. In D. Narváez & D.K. Lapsley (Eds.), *Moral self, identity and character*.
New York: Cambridge University Press.

* Indicates reverse scored items. Score is based on sum of item ratings. Higher scores indicate
more Principled Ideology; Lower scores indicate more Expedient Ideology.

ATTITUDES AND OPINIONS INVENTORY

Cadet X Number:_____   **Date:**_____

INSTRUCTIONS: The following questions ask about your preferences, perceptions, opinions, and actions. There are no right or wrong answers, and people differ in their opinions. Please answer each of the items by circling your response using the provided response options:

		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1*	It is foolish to tell the truth when big profits can be made by lying.	1	2	3	4	5
2	No matter how much money one makes, life is unsatisfactory without a strong sense of duty and character.	1	2	3	4	5
3*	Regardless of concerns about principles, in today's world you have to be practical, adapt to opportunities, and do what is most advantageous for you.	1	2	3	4	5
4	Being inflexible and refusing to compromise are good if it means standing up for what is right.	1	2	3	4	5
5*	The reason it is important to tell the truth is because of what others will do to you if you don't, not because of any issue of right and wrong.	1	2	3	4	5
6	The true test of character is a willingness to stand by one's principles, no matter what price one has to pay.	1	2	3	4	5
7*	There are no principles worth dying for.	1	2	3	4	5
8	It is important to me to feel that I have not compromised my principles.	1	2	3	4	5
9	If one believes something is right, one must stand by it, even if it means losing friends or missing out on profitable opportunities.	1	2	3	4	5
10	Compromising one's principles is always wrong, regardless of the circumstances or the amount that can be personally gained.	1	2	3	4	5
11	Universal ethical principles exist and should be applied under all circumstances, with no exceptions.	1	2	3	4	5
12*	Lying is sometimes necessary to accomplish important, worthwhile goals.	1	2	3	4	5
13	Integrity is more important than financial gain.	1	2	3	4	5
14	It is important to fulfill one's obligations at all times, even when nobody will know if one doesn't.	1	2	3	4	5
15*	If done for the right reasons, even lying or cheating are ok.	1	2	3	4	5
16	Some actions are wrong no matter what the consequences or justification.	1	2	3	4	5
17	One's principles should not be compromised regardless of the possible gain.	1	2	3	4	5
18	Some transgressions are wrong and cannot be legitimately justified or defended regardless of how much one tries.	1	2	3	4	5

THANK YOU FOR COMPLETING THIS INVENTORY