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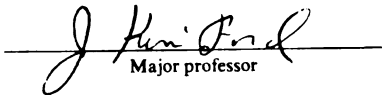
UNDERSTANDING AND IMPROVING TRAINING TRANSFER
MOTIVATION: AN APPLICATION OF RECENT
ADVANCES IN MOTIVATIONAL THEORY

presented by

Karen Renae Milner

has been accepted towards fulfillment
of the requirements for

Ph.D. degree in Psychology


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**UNDERSTANDING AND IMPROVING TRAINING TRANSFER MOTIVATION:
AN APPLICATION OF RECENT ADVANCES IN MOTIVATIONAL THEORY**

By

Karen Renae Milner

A DISSERTATION

**Submitted to
Michigan State University
in partial fulfillment of the requirements
for the degree of**

DOCTOR OF PHILOSOPHY

Department of Psychology

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ABSTRACT

UNDERSTANDING AND IMPROVING TRAINING TRANSFER MOTIVATION: AN APPLICATION OF RECENT ADVANCES IN MOTIVATIONAL THEORY

By

Karen Renae Milner

Training and learning are becoming more critical to organizational success than ever before. However, people are often not able to successfully apply what they learn in training to their work, even when the work environment provides support and opportunity to do so. Drawing from three areas of recent advances in motivational theory – goal hierarchies, approach and avoid goals, and implementation intentions – this study proposed a post-training intervention designed to improve transfer behaviors and performance. The intervention was expected to impact perceived personal relevance, self-regulatory focus, and implementation intentions. These motivational constructs were in turn expected to influence competence valuation, goal variety, and situational cueing, respectively, and transfer behavior and performance. Although no support was found for the manipulability of the motivational constructs, the results did indicate that constructs other than motivation to learn and self-efficacy are valuable in describing and predicting transfer behavior. In particular, the degree to which trainees valued competence in the training content increased their use of the skills following training. Stronger approach-mastery self-regulatory focus was associated with having a wider variety of transfer goals and using a wider variety of trained skills after training. Greater frequency and variety of skill use led to more successful transfer performance.

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INTRODUCTION

Training and learning are becoming more critical to organizational success than ever before. Changes at every level of the organizational system (Katz & Kahn, 1978) are pushing toward an increased need for employee learning and development (as well as learning and development at the team and organizational levels). Globally, technological advances are changing the tools and processes used both within organizations and in the interface of organizations with consumers, and thus changing the competitive environment in which organizations operate. Nationally, fundamental shifts in our understanding of what it means for public-sector organizations to provide public goods and services are causing further changes in organizational competition. At the organizational level, hierarchical, management-heavy, function-based structures are giving way to looser, more horizontal structures focused on self-directed, cross-functional teams. The teams, too, are changing. Increasingly, teams are centered around specific projects rather than membership, shifting both within and between projects to accommodate current objectives and needs for expertise. At the center of it all, individuals are increasingly seeing themselves as marketable service providers, pursuing their career goals by trying to make themselves attractive to top organizations. Singly and in combination, all of these forces are driving an increasing need for effective employee training and development.

Despite the development and growth of training as a full-fledged professional and scientific field, and the advances in training design and delivery, there continues to be a sense that people often are not able to successfully apply what they learn in training to their work. Researchers who have attempted to tackle this problem have developed

prescriptions for training design and for support features embedded into the work environment, producing improvements in training transfer. However, murmurs in organizations about the disappointing impact of training on job performance continue, and researchers find that the constructs and processes implicated in training transfer cannot tell the whole story about why people do not apply training to the extent desired.

More recent work on training transfer has turned to individual motivation as one of the neglected influences on transfer. The two main perspectives on transfer motivation have been applications of expectancy theory and self efficacy approaches. Expectancy theory has contributed little to our understanding of transfer motivation. Self-efficacy theory has led to some success, but has not led to a better understanding of how people translate their self-efficacy beliefs into motivational processes and strategies that help them transfer training successfully to their work. In addition, motivational theory has progressed beyond expectancy constructs. Current advances in motivational theory, self-regulation being at the forefront, center on goals and goal striving. These theories have generated promising empirical results that have not yet been applied to training transfer. This investigation focuses on mining current motivational theories for concepts that could be used to advance our understanding of training transfer and our ability to improve transfer.

The Need for Effective Training

Training is the primary organizational solution when there is a gap between organizational needs and employee attitudes, knowledge, and skills. Thus, training plays a vital role in improving and maintaining organizational productivity. However, training is costly. Recent estimates of training expenditures in organizations suggest that

companies spend approximately \$55 billion on training activities annually (Bassi & VanBuren, 1999). If all of the time employees spend learning or teaching tasks, processes, and perspectives that are not formally trained were included, the amount would grow much larger. And if all of the time that is wasted in organizations on inefficient processes, rework of goods and services, and desired but lost business attributable to lack of attitudes, knowledge, and skills that are trainable could be estimated, the amount that organizations *should* invest in training and development would likely become still larger. The importance of its function and the high cost of training development and delivery demand effectiveness. To be successful, training must deliver on its promise to improve employee attitudes, knowledge, and skills in alignment with organizational needs. Indeed, organizational leaders are increasingly concerned that training investments justify themselves by creating improved organizational performance (Martocchio & Baldwin, 1997).

Transfer of training is the key link between improvement in employee attitudes, knowledge, and skill and improvement in organizational performance. Training transfer involves the application of learned attitudes, knowledge, and skills to job performance tasks, and the maintenance of this application over time. In terms of Kirkpatrick's (1976; 1994) four-level model of training evaluation, transfer equates to behavior. No matter how much attitude, knowledge, and skill improvement results from a training program, there can be no hope of organizational improvement without application of learning to the job. A recent meta-analysis (Colquitt, LePine, & Noe, 2000) supported transfer as a complete mediator of the relationship between skill acquisition and job performance. Noe and Schmitt (1986) also found that behavior *change* significantly affected

performance improvement, though in their study, behavior change was unrelated to measures of learning. Transfer has been supported as the critical link between training and job performance improvements.

The link between individual job performance and organizational performance, particularly following training, has been more difficult to support empirically. Although disappointing scientifically, the lack of evidence on this front is hardly surprising given the complexity of identifying and measuring appropriate representations of both job performance and organizational performance criteria (Austin & Villanova, 1992) and adequately controlling for the many other factors (e.g., the state of the economy) that contribute to organizational performance and are likely to moderate the relationship between individual and organizational productivity (Campbell, 1988). Perhaps the closest inference that can be drawn from empirical work results from MacDuffie's (1995) investigation of the effects of bundles of human resource practices on automotive assembly plant productivity and quality. MacDuffie found that plants providing extensive training (among other human resource and manufacturing practices) consistently outperformed plants using more traditional practices (including less initial and ongoing training for employees). Similarly, Terpstra and Rozell (1993) found that the extent to which organizations used five employee selection practices was positively related to both annual profit and profit growth across a range of industries. Presumably, this positive relationship may have been due at least in part to the contributions that selected individuals were able to make to the organizations through their individual job performance. The results of both of these studies must be interpreted with caution, since they were cross-sectional and correlational in nature, and since neither of them explicitly

examined individual job performance. However, they provide support for the idea that individual performance contributes to organizational performance, and that training interventions that successfully improve individual job performance can lead to improved organizational performance.

In the absence of solid evidence, we must trust that to the extent that job performance ratings may include both subjective components that are linked to the organization's goals, and in some cases objective measures of work output, individual job performance does ultimately influence organizational performance. Thus, training that can improve individual performance ought to lead to improvements in organizational performance as well. Because improvements in individual performance as a result of training depend completely on successful application of learned attitudes, knowledge, and skills to the job, it is essential that we understand how to achieve successful transfer. The purpose of the current study is to further our understanding of how individuals successfully transfer new attitudes, knowledge, and skills to their work.

Transfer of Training

Clearly, training is important, and because training is important, transfer is critical. A variety of learning outcomes can result from training, including affective attitudes and motivation, knowledge, and skills (Kraiger, Ford, & Salas, 1993). However, without subsequent application to the job, this learning is useless. Training transfer involves the application of trained attitudes, knowledge, and skills to job performance tasks, and the maintenance of this application over time.

Training researchers have not been ignorant of our need to understand transfer. According to a review of transfer research by Baldwin and Ford (1988), investigators

have been studying transfer since 1901, although transfer studies were few and far between until a surge of activity in the 1950s, followed by a decade-long lull, and then another bout of activity from the 1970s into the present (Ford & Weissbein, 1997). All of this research activity and the accompanying, though limited, theoretical activity has led to advances in our understanding of how training design, trainee characteristics, and characteristics of the organizational environment influence transfer. However, we still have much to learn about transfer (Baldwin & Ford, 1988; Ford & Weissbein, 1997; Salas & Cannon-Bowers, 2001). In particular, we need to improve our understanding of the role individual learners play in creating transfer, and the motivational influences and processes that enhance or attenuate transfer success.

Conditions of Training Transfer

For decades, training researchers and practitioners have cited three fundamental conditions necessary for transfer of training to occur: training must be designed well so that trainees learn the content; the new knowledge, skills, and attitudes must be relevant to the job and positively reinforced; and trainees must be motivated to apply the content to their jobs (Baldwin & Ford, 1988; Byham, Adams, & Kiggins, 1976; Mosel, 1957; Noe, 1999). Research in the first two areas has flourished; research on the effects of individual motivation on transfer has lagged.

Research on Learning and Training Transfer

With respect to trainee learning, there have been improvements in theory and practice regarding how to design training programs to maximize learning. Drawing from cognitive and instructional psychology theories, training transfer researchers have found support for the impact of training design characteristics such as stimulus variability

(Baldwin, 1992), identical elements (Duncan & Underwood, 1953; Gick & Holyoak, 1987; Underwood, 1951), general principles (Crannell, 1956; Goldbeck, Bernstein, Hillix, & Marx, 1957), whole versus part practice (Briggs & Naylor, 1962; Naylor & Briggs, 1963), massed versus spaced practice (Digman, 1959), overlearning (Atwater, 1953; Gagne & Foster, 1949; Mandler, 1954), and training with problems at various completion levels (Paas, 1992).

Aside from training design, researchers have also found that cognitive ability has a significant positive impact on training transfer (Gordon & Kleiman, 1976; Neel & Dunn, 1960; Tubiana & Shakhar, 1982), particularly when ability is conceptualized as performance on a training sample (Downs, 1970; Gordon, 1955; Gordon & Cohen, 1973; Gordon & Kleiman, 1976; McGehee, 1948). Higher cognitive ability leads to better learning, and eventually to better transfer. However, an important conclusion from research on learning and transfer is that training design and ability do not tell the whole story about trainee learning, and learning does not tell the whole story about transfer (Alliger, Tannenbaum, Bennett, Traver, & Shotland, 1997). We cannot understand and maximize learning and transfer based on training design and trainee ability alone.

Research on Relevance and Reinforcement in Training Transfer

Focus on training relevance has led to advances in how to systematically conduct needs assessments to produce training that is directly connected to the attitudes, knowledge, skills, and abilities required for job performance (Goldstein, 1986; McGehee & Thayer, 1961; Ostroff & Ford, 1989). Emphasis on the importance of the transfer climate (Hand, Richards, & Slocum, 1973; Rouiller & Goldstein, 1993; Tracey, Tannenbaum, & Kavanagh, 1995) and supervisory support (Bates, 2000; Brinkerhoff &

Montesino, 1995; Fleischman, 1953; Huczynski & Lewis, 1980) has led researchers to stress the importance of not only general aspects of the transfer environment, but also specific elements such as opportunity to apply learned skills (Ford, Quiñones, Sego, & Sorra, 1992; Quiñones, Ford, Sego, & Smith, 1996). Fecteau, Dobbins, Russell, Ladd, & Kudisch (1995) argued that it is important to view environmental favorability for transfer as a multidimensional construct, including both task and social support from various sources (i.e., top management, supervisor, peer, and subordinate). Recent efforts have even begun to manipulate work environment characteristics such as supervisor support to further test the impact on transfer (Smith-Jentsch, Salas, & Brannick, 2001).

Research on the connection between the work environment and transfer of training has led to the conclusion that training must be relevant to organizational goals and supported in the work environment in order to produce successful transfer. However, these factors also fail to tell the whole story about training transfer. Despite training relevance and supervisory support for transfer, there continues to be unexplained individual variability in transfer success.

Research on Motivation in Training Transfer

In contrast to the attention focused on trainee learning and training relevance and reinforcement, research attention to trainee motivation (the third condition for transfer) has been limited. Only in the past decade have researchers begun to systematically examine the role of this third contributor to transfer, although it has been discussed in passing since the 1950s. Motivation is a force directing behavior; it includes direction, intensity, and persistence as dimensions of this force (Kanfer, 1991). Direction describes the specific behaviors to which effort is invested. Intensity describes the amount of effort

invested in a particular behavior. Persistence describes the continuation of this effort over time. Training transfer, the application of trained knowledge, skills, and attitudes to problems and tasks on the job, clearly involves motivation. The person must specifically *direct* effort toward applying learning to a particular job situation, and must invest a great enough *intensity* of effort and *persist* over a long enough period of time to accomplish the application. Moreover, in order to achieve successful transfer, the person must do all of this not just once but many times, in varying job situations, and most likely in the face of some degree of failure. Despite the trainee's central role in actually *doing* transfer, however, and the increasing expectation in organizations for people to be more proactive in obtaining new skills (e.g., 360° feedback systems, career development programs), we know very little about individual motivational characteristics or strategies that affect training transfer. When Baldwin and Ford reviewed the transfer literature in 1988, they concluded that research on motivational effects on transfer outcomes was not only "quite limited" (p. 68), but also characterized by a "lack of a systematic approach . . . [resulting] in minimal improvements in our understanding of the transfer process" (p. 82).

More recently, Ford and Weissbein (1997) concluded that progress is being made in our understanding of motivational factors involved in training transfer. Some theoretical models of motivation have begun to be enlisted to explain training transfer, and more sophisticated conceptual frameworks are being used to organize the motivational constructs being investigated. Salas and Cannon-Bowers (2001) agreed that researchers are beginning to investigate training motivation in a more synthesized and integrated way, rather than through the piecemeal and imprecise studies representing training motivation research thus far. Expectancy theory (Vroom, 1964) and self-efficacy

(Bandura, 1977) have been two dominant influences on training transfer research from the motivational literature. This section reviews the contributions of these perspectives to our understanding of the influence of motivation on training transfer.

Expectancy theory. Expectancy theory (Vroom, 1964) describes motivation in terms of attempts to achieve desired outcomes. The basic notion of expectancy theory is that people direct, calibrate, and sustain their effort in behaviors that they believe will most likely lead to desired outcomes. There are three central beliefs involved in expectancy theory: expectancy, instrumentality, and valence. Applied to training transfer, these capture (respectively): the trainee's belief about the extent to which effort invested in applying trained knowledge, skills, or attitudes will lead to improvements in performance; the trainee's belief about the extent to which the resulting performance improvements are likely to lead to more distant desired outcomes (e.g., promotion); and the trainee's subjective evaluation of the attractiveness of the more distant outcomes. In general, expectancy theory would predict greater transfer motivation when people believe their efforts to apply trained knowledge, skills, or attitudes will lead to performance improvements that will in turn lead to highly desired outcomes.

Expectancy theory has served as a framework for several investigations of the role of motivation in training transfer. Fecteau, Dobbins, Russell, Ladd, & Kudisch (1995) used an expectancy theory foundation to investigate pretraining motivation. Although they did not discuss a theoretical framework for their study, they focused on antecedents of pretraining motivation that are in line with an expectancy theory view of motivation (e.g., perceived training reputation, training incentives, career exploration and planning, and organizational commitment). Further, their explanations of hypothesized

relationships focus on the trainees' interest in outcomes that might result from training and beliefs about whether training will help them achieve those outcomes. Fecteau et al. found that general pretraining motivation was positively related to perceived transfer of skills from a public sector management training program.

Mathieu, Tannenbaum, and Salas (1992) explicitly used an expectancy theory perspective in their investigation of training motivation. They found that none of the antecedents they hypothesized based on the theory (career planning, job involvement, assignment to training, situational constraints) were significantly related to training motivation for a particular training program. However, they did find that their expectancy theory based construal of training motivation had a significant positive impact on reactions to training. In addition, training motivation was positively related to learning, especially for people who had positive reactions to the training (i.e., reactions moderated the relationship between training motivation and learning). Mathieu, Tannenbaum, and Salas did not directly assess training transfer, but they did measure performance on a work sample, and found that performance was positively predicted by learning. Thus, they found partial, but limited, support for an expectancy theory based notion of training motivation. They concluded by calling for alternate conceptions of training motivation based on other theories.

As a final example, Noe and Schmitt (1986) used an expectancy theory framework to investigate motivation to learn and motivation to transfer. However, they found little support for their operationalizations of motivation based on this theory. Their analyses suggested that post-training motivation to transfer should be dropped entirely from their hypothesized model, and pretraining motivation was retained but not

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significantly related to any of the hypothesized antecedents or to learning. In their study, examining motivation to learn and motivation to transfer from an expectancy theory perspective did not contribute much to our understanding of training motivation, transfer, or individual job performance.

Research based on an expectancy theory framework has provided some insight into the connection between motivation and transfer, and has highlighted the importance of the outcomes available in work roles. This research has led to recommendations for interventions that influence trainees' beliefs about the relationship between their effort to use trained knowledge, skills, and attitudes and their job performance; highlight the potential benefits of using trained knowledge, skills, and attitudes; and emphasize connections between training and organizational rewards such as pay increases or promotions. However, the expectancy theory view of transfer motivation has produced disappointing empirical results. Mathieu and Martineau (1997) proposed that expectancy theory notions of training motivation are better suited for predicting individual choices among training alternatives than for providing information about individual motivation within a training program. Expectancy theory provides little guidance to help us understand the processes involved in the direction, intensity, and persistence of behavior devoted to training transfer, or the motivational strategies engaged to prompt and sustain that attention.

Self-efficacy. Self-efficacy (Bandura, 1977) is at the center of social learning theory's argument that anticipation of future outcomes determines the motivational direction, intensity, and persistence of behavior. Self-efficacy is a person's subjective judgment of whether he or she can successfully perform the behaviors believed to be

required to achieve a particular outcome. Applied to training transfer, self-efficacy describes the person's judgment of whether he or she can reap the benefits of the trained knowledge, skills, or attitudes by successfully applying them on the job. Social learning theory would predict that greater self-efficacy will lead to greater motivation to transfer training to the job.

Research on the role of self-efficacy in training has provided fairly conclusive evidence that greater self-efficacy leads to greater learning and performance, and this construct continues to attract research attention to untangle these relationships more precisely (Mathieu & Martineau, 1997; Salas & Cannon-Bowers, 2001). Marilyn Gist and her colleagues have provided an accumulation of evidence, in both laboratory and field settings. In general, these studies have found that self-efficacy plays a significant positive role in learning and transfer processes. Gist, Schwoerer, and Rosen (1989) found that specific self-efficacy (i.e., self-efficacy regarding particular training content) had a positive relationship with learning how to use a computer software package, even when factors such as education and experience were controlled. In addition, they found that training method can impact development of self-efficacy during training, especially when pretraining self-efficacy is low. In a study comparing two methods for training innovative problem-solving, Gist (1989) again found that training method impacted self-efficacy for being able to achieve various levels of performance. A training method using cognitive modeling with practice and reinforcement led to higher self-efficacy than training with lecture and practice alone, even after controlling for pretraining self-efficacy levels. The cognitive modeling method also led to better performance. Self-efficacy was not evaluated as a mediator of the relationship between training method and

performance, so conclusions cannot be drawn about whether self-efficacy was responsible for the improved performance.

Gist, Stevens, and Bavetta (1991) found that post-training self-efficacy was positively related to performance of negotiation skills both immediately and seven weeks after training. Most recently, Stevens and Gist (1997) found that post-training self-efficacy was significantly related to performance seven weeks after training only in a condition that received a performance-oriented (i.e., focused on using goal setting to achieve the best negotiation outcomes) post-training intervention. Self-efficacy was unrelated to performance in the condition receiving a mastery-oriented intervention (i.e., focused on behavioral modeling to achieve skill improvement). In addition, Stevens and Gist (1997) examined the influences of post-training self-efficacy on trainee cognitions. They found that in the performance-oriented intervention group, higher self-efficacy led to reduced cognitive withdrawal, greater use of analytic strategies, and reduced worry during the delayed performance negotiation task. In the mastery-oriented intervention group, higher self-efficacy was paradoxically related to greater cognitive withdrawal, was unrelated to use of analytic strategies, and was related to reduced worry during the delayed performance negotiation task (as it was in the performance-oriented group). This research highlights the complexity of the relationship between self-efficacy and performance depending on whether learning or performance is emphasized in the training program. The Stevens and Gist study also represents a noteworthy attempt to connect self-efficacy to the trainees' cognitive processes.

Other researchers have also expanded our understanding of the role of self-efficacy in training transfer. In one laboratory study, self-efficacy was considered as an

antecedent of motivation to learn (Quiñones, 1995). Pretraining self-efficacy was positively related to a self-report scale of motivation to learn the material presented in the particular training program tested. Motivation to learn in turn positively affected learning and behavior use following training, though not performance quality nor quantity. Self-efficacy has also been found to be related to opportunity to perform trained skills (Ford, Quiñones, Sego, & Sorra, 1992). Higher levels of self-efficacy were related to increases in two of the three dimensions of opportunity to perform; four months after training, individuals with higher self-efficacy performed more tasks (breadth) and more complex and difficult tasks (task type) than trainees with lower self-efficacy. Self-efficacy was not related to the frequency of performance of trained skills (activity level).

Ford, Smith, Weissbein, Gully, and Salas (1998) found that self-efficacy at the end of training was related to performance on the experimental transfer task (a radar operations simulation). Further, this relationship was evident even after the level of knowledge and skill gained in training was controlled. Self-efficacy was also positively related to metacognitive activity (choice of practice scenarios, self-monitoring of learning, and self-evaluation of progress) and choice to practice the most difficult available scenario, which participants knew was most similar to the transfer task, and was found to mediate the negative relationship between performance goal orientation and transfer performance. Thus, self-efficacy was supported as an important motivational learning outcome that influenced transfer performance. Similar to Quinones' (1995) study described above, self-efficacy was not related to activity level, or the frequency with which participants practiced an important task strategy during the practice exercises.

Other researchers have examined the development of self-efficacy during training, although they have focused on knowledge and skill acquisition rather than transfer. Mathieu, Martineau, and Tannenbaum (1993) proposed a model that described self-efficacy development during training. They found that self-efficacy was partly stable and partly malleable over the course of the training program (a college bowling course), and that self-efficacy assessed midway through the program predicted subsequent performance improvement. Specifically, achievement motivation and choice to participate in the training were positively related to self-efficacy development. Individual-level constraints (i.e., competing demands that would reduce practice time) had a negative impact on self-efficacy. Self-efficacy midway through the training course contributed to performance at the end of the bowling course over and above self-efficacy assessed prior to training and initial performance.

Martocchio (1994) tested the effects of influencing trainees' self-efficacy beliefs by manipulating their beliefs that skills taught in a training program were fixed (entity) versus acquirable (incremental). He found that he was able to affect self-efficacy beliefs as expected. People who received training emphasizing that they could acquire the skills being trained exited the training with higher self-efficacy than they had entered with, whereas trainees who were led to believe that they should already possess the skills needed to succeed and that hard work would not pay off exited the training with lower self-efficacy than they had entered with (the two groups did not differ in pretraining self-efficacy). Self-efficacy, in turn, was positively related to acquisition of declarative knowledge. No measure of transfer was assessed in this study.

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Similarly, Martocchio and Webster (1992) found that positive versus negative feedback influenced development of self-efficacy specific to a software training program. For trainees receiving negative feedback, self-efficacy beliefs lowered during the course of the training, even though the negative feedback was not based on their true learning or performance level. In contrast, self-efficacy beliefs of trainees receiving positive feedback increased. Self-efficacy beliefs were also related to attributions for negative (but not positive) feedback; people with low self-efficacy made internal attributions for their poor performance, while those with high self-efficacy made external attributions. Post-training self-efficacy was also related to performance on the knowledge acquisition test.

In conclusion, research on self-efficacy in training and transfer has provided evidence for the importance of the individual's self-efficacy beliefs before, during, and following training. In addition, this research provides guidance regarding interventions that can be used to increase self-efficacy in training. However, research focusing on a self-efficacy model of motivation in training so far has not provided many leads regarding how people translate their self-efficacy beliefs into processes and strategies that help them to direct, calibrate, and persist in applying trained knowledge, skills, and attitudes to their job successfully.

Limitations. The research that has been done on the role of motivation in training transfer has primarily focused on expectancy theory (Vroom, 1964) and self-efficacy (Bandura, 1977). In addition, research has predominantly viewed motivation as a force that is present prior to training (motivation to learn) and presumably stable, influencing transfer primarily through its influence on learning. Moreover, the person who is actually

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doing the work of transfer has been viewed as remarkably passive, at the mercy of motivational determinants such as information available in the environment to form the basis for expectancy beliefs, the framing of the training, or the type of feedback available. Campbell (1988) argued that individual variables such as trainees' goals, their self-regulatory behavior, and their self-efficacy before, during, and after training could impact the ultimate effectiveness of a training program, encouraging a better understanding of individual-level *processes* involved in training. Uncovering the motivational processes involved in training transfer promises to give us a better understanding of *why* training works or does not work, the question training reviewers have continued to pose to researchers (Ford & Weissbein, 1997; Salas & Cannon-Bowers, 2001).

To understand how successful transfer occurs, we must deepen our understanding of the role motivational processes play in the transfer process, and especially the ways in which people engage those motivational processes. Successful transfer can result only when people choose to attempt transfer of trained knowledge, skills, or attitudes to their job, and bolster that choice with enough effort maintained long enough to result in successful application. We have begun to tap into people's general sense of being motivated and willing to exert effort, but to further our understanding, we need to examine in more detail the motivational processes operating within the transfer process itself. We need to deepen our understanding of how and under what conditions people initiate transfer behaviors. Once the choice to attempt transfer is made, we need to deepen our understanding of the motivational processes involved in allocating adequate effort and persistence to the transfer attempt to make it a transfer success. Research based on expectancy and self-efficacy notions of motivation provide useful information

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regarding how to arouse and increase motivation to transfer. However, studies applying expectancy and self-efficacy constructs provide little evidence about the processes through which motivation operates and the strategies motivated people use to create successful transfer. The purpose of this study is to deepen our understanding of the individual motivational processes involved in training transfer.

New Developments in Motivation Theory

Training researchers have achieved significant advances by turning to cognitive theory for expertise on cognitive components of learning (e.g., memory, information cueing and retrieval; Cannon-Bowers, Tannenbaum, Salas, & Converse, 1991; Howell & Cooke, 1989; Lord & Maher, 1991), as well as by applying cognitive constructs and theory to the entire instructional systems model of training (Covert & Craiger, 1997; Ford & Kraiger, 1995; Goldsmith & Kraiger, 1997; Rogers, Maurer, Salas, & Fisk, 1997). However, there is still much potential in motivational perspectives and theories developed more recently than the much-relied-on expectancy theory and self-efficacy frameworks. Training researchers have remained seemingly oblivious to these advances (as have organizational researchers in general; e.g., see a recent review by Ambrose & Kulik, 1999, which focuses predominantly on seven traditional motivational theories and conspicuously omits new theoretical work from the section on “emerging areas.”).

Self-Regulation

A key emerging area in motivational theory over the past 25 years is self-regulation. Replacing pure behavioral or cognitive models, self-regulation theories have come to be the dominant fundamental frameworks for understanding human behavior. Self-regulation theories attempt to integrate cognitive, motivational, social, and

behavioral perspectives on human behavior, and have been used to explain a wide range of phenomena and contexts, including: our sense of self and personal agency (Zimmerman, 2000), goal commitment and choice of goal strategies (Shah & Kruglanski, 2000), personality (Matthews, Schwean, Campbell, Saklofske, & Mohamed, 2000), societal influence on behavior (Jackson, Mackenzie, & Hobfoll, 2000), health behaviors and coping with illness (Brownlee, Leventhal, & Leventhal, 2000; Maes & Gebhardt, 2000), and learning (Boekaerts & Niemivirta, 2000; Rheinberg, Vollmeyer, & Rollett, 2000). At their core, the self-regulation theories have in common a focus on explaining why and how people direct our behavior toward particular ends. The basic self-regulatory process is a cybernetic control loop, in which some indicator of current performance resulting from behavior is compared against a goal, and behavioral adjustments are made to reduce the discrepancy between performance and the goal (e.g., Carver & Scheier, 2000). With respect to transfer motivation, the key question is how can self-regulation theories help us understand why and how people might successfully direct behavior toward using the skills they learn in training in their work.

It is beyond the scope of this investigation to provide a complete treatment of the numerous and diverse self-regulation theories currently being researched (consult Boekaerts, Pintrich, & Zeidner, 2000 for an overview of these developments) or all of the potential ramifications self-regulation might have for training transfer. Instead, I will focus on three components of self-regulation theory that appear to be especially promising for improving transfer motivation by influencing the intensity, direction, and persistence with which people choose to apply effort to transferring trained skills. The three concepts all involve goals as a critical mechanism for understanding motivation.

Specifically, they include goal hierarchies, goal valence, and implementation intentions. These self-regulation concepts have been only somewhat integrated into training transfer research in the past. In this section, I will review theoretical and empirical developments in each of these areas and discuss the extent to which each concept has been incorporated into training transfer theory and research thus far. In the next section, I present a model of transfer motivation that builds on and extends these connections.

Goal Hierarchies

The first concept from self-regulation theory that could be applied to understanding and improving transfer motivation involves goal hierarchies. A critical assumption in self regulation theories is that human behavior is purposeful. People do things in order to achieve a goal, even if they are not consciously aware of what the goal is or even if the goal is trivial. Applied to training transfer, this assumption implies that if people are going to apply trained skills to their work, they need to have some sort of goal relevant to that application. The new skills must be seen as useful for achieving a goal the individual currently holds, or a new goal must be created to motivate the person to use the new behaviors.

Goal hierarchies describe the relative degree of abstractness of various goals. Powers (1973) argued that feedback loops are hierarchically arranged such that high-level loops provide goals or standards to the loops just below them, providing increasing specificity for discrepancy detection and reduction at each lower level. Similarly, Vallacher and Wegner's (1987; 1989) action identification theory posits that any given behavior can be identified, or described, at a variety of hierarchical levels ranging from abstract representations to specific motor descriptions (e.g., when using a particular

negotiation strategy, a person might claim to be “standing up for my personal rights,” “being assertive,” “trying to get my money back,” “applying the ‘broken record’ technique,” “repeating myself over and over again,” or “using my vocal chords.”) A seemingly infinite set of descriptions can be offered for any particular behavior, but the descriptions reflect very different purposes or goals for engaging in the behavior. Higher-level action identifications describe *why* the behavior is being enacted; lower-level action identifications describe *how* the behavior is being performed. Similarly, Carver and Scheier (1998) distinguish “be” goals, which describe abstract qualities we would like to have, from “do” goals, which describe the concrete strategies and behaviors we engage to reflect those qualities. Higher-order goals provide purpose and give form and meaning to lower-order goals, which serve as measurable targets.

Goal Importance and Motivation

Connecting the concept of a goal hierarchy to motivation, Carver and Scheier (1998) point out that goal importance differs as a function of a goal’s location within a person’s hierarchy and connections to other goals in the hierarchy. Higher-order goals, which are fundamental to a person’s sense of self, have high importance. However, these abstract goals are not held at a level that is useful for directly guiding behavior—a goal to stand up for personal rights can be achieved in any number of ways, only one example of which is being assertive, and being assertive can be achieved in many ways. Although by definition lower-order goals have less importance than higher-order goals, these strategies are vital to the accomplishment of higher-order goals. Their importance relative to competing lower-order goals varies as a result of their connections to the higher-order goals in two ways. First, lower-order goals that are perceived as directly

contributing to the achievement of an important high-level goal have greater importance than those that are not perceived to directly contribute to accomplishment of an important high-level goal. Second, lower-order goals that are perceived to contribute to the accomplishment of more than one higher-order goal are granted more importance than those that are connected to fewer important high-level goals.

Goal importance is relevant to motivation in two ways. First, goal importance influences the choices we make about which goals to invest effort to pursuing at any given moment. We are more likely to pursue lower-level goals that are aligned with one or more important higher-order goals (Maes & Gebhardt, 2000). This could be thought of as influencing the intensity with which we pursue particular goals—we are likely to invest more effort, and thus more behavior, toward goals that are more important to us. Second, goal importance influences our willingness to persist in our efforts to attain a goal. Goals that are higher in our goal hierarchy, and goals that have more importance to us because of their association with one or more higher-order goals, are more difficult to disengage from than goals with less importance. When goals are central to our self-concepts, we cannot disengage from them, ignore them, or tolerate large discrepancies between the goals and our present states without reorganizing our value systems, which is not an impossible option, but is generally less palatable than continuing to persist toward the goal (Greenwald, 1980; McIntosh & Martin, 1992; Millar, Tesser, & Millar, 1988). Carver and Scheier (1998) argue that when goals are very important to us, we will persist longer in trying to achieve them, even when we have doubts about our ability to reach the goal (i.e., low self-efficacy). Thus, because goals that are higher in our goal hierarchy or

are perceived to be firmly connected to higher-order goals have greater importance for us, we are more likely to both engage in goal pursuit and persist in goal pursuit.

Self-Concept and Personal Relevance

Research beyond the realm of self-regulation theories also support the notion that self-concept and relevance to personal goals enhance motivation as well as having other effects such as coloring the way we perceive the world around us. Shamir (1991) argued that work motivation theories had been limited by their lack of attention to self-concept as a central motivating force in human behavior. Researchers have found that congruence or alignment between personal (higher-order) goals and program or organizational (higher-order) goals is significantly related to exercise behaviors over time (Duda & Tappe, 1988) and to job enjoyment (Connelly, 1985). With respect to training transfer, goal congruence would mean that the person would be able to link behaviors learned in training based on the organization's goals to his or her personal higher-order goals, and thus would be expected to be more motivated to use the trained skills.

Others have demonstrated that relevance to our personal goals increases: our interest in feedback related to that goal (Trope & Pomerantz, 1998); our perceptions of the seriousness and personal importance of events, and our affective reactions and self-regulatory responses to those events (Lavalley & Campbell, 1995); our interpretations of and responses to training messages and life situations (Freeman, Hennessy, & Marzullo, 2001; Sanderson & Cantor, 1995). In addition, there are links between connections of information to our self-concepts (personal relevance) and memory. We have better memory for information we have linked to ourselves than for information we link to less familiar people, for whom we have less well-differentiated memory structures (Bower &

Gilligan, 1979). In addition, increased importance resulting from personal relevance can lead to heightened accessibility of attitudes (Bizer & Krosnick, 2001). In fact, evidence from brain injury case studies, split-visual-field research, and positron emission tomography suggests that specialized areas of the brain are active in establishing, maintaining, and processing personally relevant information, and that injury to these areas disrupts and distorts recognition and memory for this information (Maguire & Mummery, 1999; Ohnesorge & VanLancker, 2001; VanLancker, 1991). This basic level of attention and memory for things we perceive as relevant to our selves and our personal goals suggest that personal relevance could have a positive impact on training transfer motivation if training skills could be linked to personal goals and self-concepts of trainees.

Beyond attention and memory, personal relevance has also been found to be connected to: greater stability of opinions and lower receptivity to superficial elements of persuasive communication (Petty & Cacioppo, 1984; Petty, Cacioppo, & Goldman, 1981; Taylor, 1983), harsher interpersonal impressions (Tesser & Campbell, 1982), more accurate information processing (Sanbonmatsu, Shavitt, & Sherman, 1991), deeper and more independent decision-making (Allison, Worth, & King, 1990; Trost & Kenrick, 1994), more systematic processing of risk information (Rothman & Schwarz, 1998), increased information seeking about particular topics (Jemmott, Ditto, & Croyle, 1986), and a stronger relationship between emotional reactions and behavioral intentions (Darley & Lim, 1992). These connections suggest that personal relevance has many implications for how deeply we process information and how we evaluate behaviors. Applied to training transfer motivation, greater personal relevance may make us more likely to

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persist in training-related attitudes and behaviors; judge our transfer attempts to a higher standard than skills we did not find to be particularly relevant or important, motivating discrepancy reduction; think more deeply, carefully, and systematically about ways to use our skills; and feel more emotionally invested in using the skills.

Several of the relationships described above resulted from manipulations of personal relevance. In both organizational and educational fields, personal relevance has been recommended and used as a basis for intervention. Educational researchers have found that teaching techniques that enable students to discover and create connections between what they are learning and themselves improves personal relevance of the information (Neisser, 1975). Bailey and Clarke (2000) recently emphasized the importance of helping managers relate knowledge management to organizational and individual goals if these systems are to be used effectively. In this investigation, I propose that a training transfer intervention that incorporates elements designed to increase the perceived personal relevance of the trained skills will improve motivation to transfer and transfer behavior.

Self-Regulatory Failure and Training Transfer

Successful self-regulation occurs when higher-order goals shape lower-order goals and behavioral goal pursuit in their favor, thus reducing goal-performance discrepancies at the higher level, and allowing us to achieve the abstract qualities we value. In contrast, self-regulation fails when higher-order goals are unable to successfully guide behavior. Baumeister and Heatherton (1996) describe one type of self-regulatory failure—failure that occurs when a higher-order goal is unable to prevent *impulsive action* at a lower level. Carver and Scheier (1998) argue that there is a

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symmetric type of failure that occurs when a higher-order goal is unable to override *inaction* to prompt action in service to the goal. Both of these types of self-regulatory failure can be applied to training transfer. Depending on the extent of prior experience, successful transfer can involve either replacing old skills and strategies with new skills (necessitating prevention of previous or “impulsive” ways to behave in the job) or prompting entirely new behaviors (replacing inaction).

It is also important to revisit the basic assumption in self-regulation theories that behavior is goal-directed. An implication of this assumption is that for training transfer, the so-called impulsive behaviors that must be replaced by new skills have been done in the service of some goal. If those behaviors must be discontinued in order for newly trained behaviors to be successful, previous goals or the trainee’s understanding of those goals must change. For example, if a person formerly engaged in position-based bargaining to achieve a goal to appear strong and focused, one of two things must happen if that person is going to successfully use interest-based bargaining skills. Either the goal to appear strong and focused must be discarded or otherwise take on reduced importance, or the person must believe that the new interest-based bargaining skills are likely to lead to an impression of strength and focus. Failure of transfer goals to drive behavior results in failure to transfer skills.

Although researchers do not prescribe ways to avoid these types of self-regulatory failure, it seems intuitive that one approach would be to maximize the importance assigned to the higher- and lower-order goals involved in transfer and increase their immediate salience to the person. One way to do this might be to encourage the person to draw connections between the training and as many important higher-order goals as

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possible. If connections to higher-order goals and the self can be made as deeply and broadly as possible, and the person perceives alignment among the trained skills and personal goals, self-regulation is likely to be more successful and therefore lead to greater motivation.

Approach and Avoid Motivation

A second area of motivational theory that might better inform our understanding of training transfer motivation are approach and avoid goals. Approach and avoid motivation does not comprise a single, integrated theory of human motivation. Rather, these concepts currently exist as an overarching framework that has influenced a number of areas including self-regulation, self-discrepancy theory, and achievement goal orientation. In general terms, approach and avoid describe a qualitative dimension of the *directional* component of motivation. Traditionally, the direction element of motivation has simply been used to describe the target of individual effort. Approach and avoid motivation add specificity by indicating whether an individual's construal of his or her situation or behavior is one of moving *toward* a desired target (approach) or moving *away from* an undesired target (avoid). This construal is seen as being perceptual, with the potential to be influenced by both individual (trait) and situational (state) factors. Once activated, however, approach and avoidance are hypothesized to be controlled by very different systems (Gray, 1994). In fact, recent EEG research by Davidson and colleagues (Davidson, Ekman, Saron, Senulis, & Friesen, 1990) also suggests that distinct areas of the brain are active in situations linked to approach versus avoidance. Although approach and avoid are often treated as mutually exclusive alternatives, there is allowance for the possibility that they are somewhat independent, perhaps operating

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simultaneously in the same domain (e.g., a person can approach one goal while avoiding another) or mixing across hierarchical levels (e.g., pursuing a desired target (approach) by strategically avoiding substeps believed to lead away from that target). Examining approach and avoid motivation has potential for improving our understanding of training transfer motivation because of their impact on self-regulatory processes.

Approach and Avoid in Self-Regulation Theories

Positive and negative feedback loops. Carver and Scheier (1998; Carver, Lawrence, & Scheier, 1996) highlight approach and avoid as critical for understanding the rational basis of affect. In their model, goals are seen as central to human behavior. Carver and Scheier describe two types of feedback loops that function around goals to produce behavior. The first is a discrepancy-reducing, or negative, feedback loop. A negative feedback loop involves comparing current behavior or results against a desired goal. By definition, negative feedback loops involve *approach* toward the desired goal. When there is a discrepancy between the current and desired states, the person is motivated to take action to reduce the discrepancy and approach the goal. The second type of feedback loop is a discrepancy-amplifying, or positive, feedback loop. A positive feedback loop involves comparing current behavior or results against an undesired quality. Positive feedback loops involve *avoidance* of the undesired quality, or movement as far from that quality as possible. The downside of this type of self-regulation is that moving away from the undesired quality can theoretically result in chaotic behavior (i.e., *anything* that does not approach the undesired quality is a way to prevent it). However, Carver and Scheier propose that in actual human behavior, people typically choose something to move toward to avoid the undesired quality, and thus the

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positive loop becomes bounded by a negative (approach) loop. Avoidance, however, remains the central motivational drive.

Approach and Avoid in Self-Discrepancy Theory

Another self regulation theory in which approach and avoidance play a significant role is Higgins' (1997) self-discrepancy theory. Focusing on conceptions of the self, Higgins delves into approach and avoidance motivation in an effort to better understand the complexities of human behavior and performance and affective outcomes that are poorly explained by the simple hedonic principle that people approach pleasure and avoid pain. Higgins stresses the importance of discussing approach and avoidance at different hierarchical levels of human thought and behavior. Higgins distinguishes three independent concepts necessary to understand how people approach pleasure and avoid pain: regulatory reference, regulatory focus, and regulatory anticipation.

Regulatory reference. At the standard, or goal, level, Higgins (1997) differentiates between self-regulation referenced according to a desired end-state versus an undesired end-state. A desired reference involves approach; whereas an undesired reference involves avoidance. Higgins considers the regulatory reference to describe the system level, or end-state the person is working toward. Approach standards are associated with nurturance needs, ideals and aspirations, and a concern for accomplishment. Avoid standards are associated with security needs, oughts and responsibilities, and a concern for safety. Adoption of approach or avoid standards are influenced by both individual traits preferring approach or avoidance goals, and situational elements that highlight approach or avoidance characteristics (e.g., ideals versus oughts).

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Regulatory focus. Regulatory focus concerns the strategic means the person uses for self-regulation. Higgins conceptualizes actions relevant to the regulatory reference end-states as either congruent with (matching) or discrepant from (mismatching) the reference value. Importantly, matches and mismatches can occur for either type of regulatory reference (see Table 1). Thus, strategies employed to attain a desired-state regulatory reference (i.e., an approach goal) can match, or approach, achievement of the reference. The strategies can also mismatch the reference, or avoid failure to approach the reference. Similarly, strategies employed to avoid an undesired-state regulatory reference (i.e., an avoid goal) can match, or approach, failure to achieve the reference. The strategies can also mismatch the reference, or avoid achievement of the reference.

Table 1

Higgins' (1997) Conceptualization of Regulatory Reference and Regulatory Focus

| Regulatory Focus (Strategy) | Regulatory Reference (Goal) | |
|-----------------------------|--|--|
| | Approach | Avoid |
| Approach | Maximize match to desired end-state (make correct "hits"). e.g., "Engage in behaviors that will make me a good negotiator." | Maximize mismatch to undesired end-state (avoid errors of omission). e.g., "Engage in behaviors that will not make me a poor negotiator." |
| Avoid | Minimize mismatch to desired end-state (make correct rejections). e.g., "Do not engage in behaviors that will not make me a good negotiator." | Minimize match to undesired end-state (avoid errors of commission). e.g., "Do not engage in behaviors that will make me a poor negotiator." |

Irrespective of the nature of the regulatory reference, regulatory focus involves either an approach or avoid orientation to the strategic pursuit of that reference. An approach orientation produces what Higgins labels "promotion focus." Promotion focus involves sensitivity to whether positive outcomes are present or absent and attention to

gains and lack of gain. An avoid orientation produces “prevention focus,” which involves sensitivity to whether negative outcomes are present or absent and attention to loss and non-loss.

Regulatory anticipation. Finally, Higgins (1997) proposes a concept called regulatory anticipation, which isolates approach and avoidance in terms of anticipated consequences of self-regulation. Higgins describes regulatory anticipation as a higher-order concept that describes why a person engages in self-regulation around a particular goal. The two possible motives are to approach an expected positive outcome or to avoid an expected negative outcome. Anticipation of pleasure is linked to perseverance when faced with difficulty, cheerfulness when faced with success, and dejection when faced with failure. Anticipation of pain is linked to quitting when faced with difficulty, calmness when faced with success, and agitation when faced with failure.

Higgins (1997) notes that both trait and state influences determine whether people will choose approach or avoid orientations at any given time. Higgins, Roney, Crowe, and Hymes (1994) found evidence that trait regulatory focus influenced friendship strategies. In another study, they found that simply priming promotion or prevention focus could increase attention to that type of strategy, demonstrating the potential for situational impact on regulatory focus.

Approach and Avoid in Achievement Motivation Theory

Closely related to self-regulatory theories, achievement goal theory focuses on orientations related to the pursuit of achievement goals. Elliot (1999) emphasizes approach and avoidance motivation as critical to understanding how people pursue achievement goals. The prevailing understanding of achievement goal motivation rests

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on a dichotomy between mastery and performance goals (Ames & Archer, 1987; Dweck, 1986; Nicholls, 1984). Elliot argues that the popular distinction between mastery and performance goal orientations cannot account completely for all of the behaviors exhibited in achievement goal striving, particularly with respect to the mixed empirical support for the proposition that performance goals lead to negative processes and outcomes.

Elliot (1999) specifies that the construct of *competence* is at the core of achievement motivation, and argues that there are two dimensions that are integral to defining competence—the standard used to define competence and the valence, or direction, implied by the standard. The dimension of competence standard is represented in the traditional dichotomy between mastery and performance goal orientation. Mastery goals focus on demonstration of task competence; performance goals focus on demonstration of competence relative to others. The valence dimension of competence, however, has not been incorporated explicitly into theories of achievement goals. Elliot defines the valence dimension as either approach or avoid. Approach and avoidance goal distinctions have been discussed in early work on achievement motivation as well as in many other psychological theories (Dweck & Bempechat, 1983; Lewin, Dembo, Festinger, 1954; Nicholls, 1984; see Elliot, 1999, Table 1, for a comprehensive review). However, in achievement motivation theory, approach and avoidance have been subordinated to distinctions of mastery and performance goals.

Competence valence as a dimension of achievement goals. Elliot (1999) defines the valence dimension of competence as either approach or avoidance. Approach motivation is directed toward a positive or desirable event or possibility; it is an

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appetitive motivation. Avoidance motivation is directed against a negative or undesirable event or possibility; it is an aversive motivation. Elliot argues that incorporating a distinction between approach and avoidance motivation into the mastery-performance goal orientation framework captures both of the fundamental dimensions of the underlying competence construct (Elliot & McGregor, 2001), and therefore will better explain achievement-related behavior, especially with respect to the unreliable processes and outcomes associated with performance goals. He differentiates mastery-approach, mastery-avoid, performance-approach, and performance-avoid motivations and goals. Each of these is defined by how competence is *defined* and *valenced*. Mastery-approach motivation involves competency defined in terms of personal skills and abilities, and valenced appetitively toward the possibility of a positive outcome (i.e., wanting to improve personal skills and abilities). Mastery-avoid motivation involves competency defined in terms of personal skills and abilities, but valenced aversively away from the possibility of a negative outcome (i.e., wanting to avoid loss of personal skills and abilities, or avoid failing to understand material one is trying to learn). Performance-approach motivation involves competency defined relative to others, and valenced appetitively toward the possibility of a positive outcome (i.e., wanting to be better than others). Performance-avoid motivation involves competency defined relative to others, but valenced aversively away from the possibility of a negative outcome (i.e., not wanting to be worse than others).

Elliot and McGregor (2001) provide empirical evidence supporting the independence and internal consistency of these four achievement goal types. They have been able to validly measure the four constructs, as well as demonstrate fairly consistent

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and distinct patterns of relationships between the achievement goals and several antecedents and consequents. Both exploratory and confirmatory factor analysis of a measure designed to capture the competence definition and competence valence dimensions of achievement goal motivation support the 2 (competence definition: mastery or performance) x 2 (competence valence: approach or avoid) conceptualization of achievement goals. While not perfectly uncorrelated, the achievement goal types are more strongly correlated with those they share one dimension with than with the goal type for which they differ on both dichotomies.

Relationships with several proposed antecedents (all analyses were correlational, precluding firm statements about causality) also support the importance of distinguishing achievement goals along the dimensions of mastery/performance and approach/avoid (Elliot & McGregor, 2001), although the picture of relationships is not entirely clear. In Study 2, Elliot and McGregor found that relationships of achievement goal types with antecedents varied as a function of both the mastery/performance and the approach/avoid dimensions (see Table 2). For instance, need for achievement had significantly positive relationships with both mastery-approach and performance-approach achievement goals. In fact, mastery and performance goal orientations could be differentiated according to the two subdimensions of need for achievement examined. Mastery orientation was significantly related to workmastery; and performance orientation was significantly related to competitiveness. In contrast, need for achievement was not significantly related to either mastery-avoid or performance-avoid achievement goals. Fear of failure was positively related to performance-approach, performance-avoid, and mastery-avoid achievement goals. Elliot (1999) predicted that fear of failure could lead to both

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performance-approach and performance-avoid goals, but did not differentiate mastery approach and avoid goals. The lack of significant relationship between fear of failure and mastery-approach goals in this study supports the need to distinguish between different types of mastery orientation.

Table 2

Summary of Elliot & McGregor (2001) Study 2 and Study 3 (Selected):
Relationships of Antecedents with the Four-Factor Model of Achievement Goals

| | Competence Standard (Goal Orientation) & Valence (Approach or Avoid) | | | |
|----------------------------|--|-------------|-------------|-------------|
| | Mastery | | Performance | |
| | Approach | Avoid | Approach | Avoid |
| Incremental Theory | <i>n.s.</i> | – | <i>n.s.</i> | <i>n.s.</i> |
| Entity Theory | <i>n.s.</i> | + | <i>n.s.</i> | + |
| Need for Achievement | + | <i>n.s.</i> | + | <i>n.s.</i> |
| --Workmastery Subscale | + | <i>n.s.</i> | <i>n.s.</i> | <i>n.s.</i> |
| --Competitiveness Subscale | <i>n.s.</i> | <i>n.s.</i> | + | <i>n.s.</i> |
| Fear of Failure | <i>n.s.</i> | + | + | + |
| Self-Determination | + | – | <i>n.s.</i> | – |
| Perceived Class Engagement | + | + | <i>n.s.</i> | <i>n.s.</i> |
| SAT Scores | <i>n.s.</i> | <i>n.s.</i> | + | – |

+ indicates a significantly positive relationship ($\alpha = .05$).

– indicates a significantly negative relationship ($\alpha = .05$).

n.s. indicates no significant relationship.

Finally, Elliot and McGregor (2001) provide empirical evidence that the four achievement goal types they distinguish have differential effects on cognitive processes (study strategies) and affective outcomes (anxiety; see Table 3). Only a mastery-approach achievement goal orientation was positively related to deep processing of college course material. Mastery-avoid, like performance-avoid, was significantly related to disorganization in studying; performance-avoid was also related to a tendency for

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surface processing of material. In terms of affect, both types of avoidance orientations (mastery and performance) were significantly related to test anxiety, whereas the approach orientations were not significantly related to any of the three test anxiety measures. In terms of exam performance, only performance orientation was a significant predictor: performance-approach goals were a positive predictor of exam grade, and performance-avoid goals were a negative predictor.

Table 3

Summary of Elliot & McGregor (2001) Study 2 and Study 3 (Selected):
Relationships of the Four-Factor Model of Achievement Goals with Consequences

| | Competence Standard (Goal Orientation) & Competence Valence (Approach or Avoid) | | | |
|--------------------|---|-------------|-------------|-------------|
| | Mastery | | Performance | |
| | Approach | Avoid | Approach | Avoid |
| Deep Processing | + | <i>n.s.</i> | (-) | <i>n.s.</i> |
| Surface Processing | <i>n.s.</i> | <i>n.s.</i> | (+) | + |
| Disorganization | <i>n.s.</i> | + | <i>n.s.</i> | + |
| State Test Anxiety | <i>n.s.</i> | (+) | <i>n.s.</i> | + |
| Worry | <i>n.s.</i> | + | <i>n.s.</i> | (+) |
| Emotionality | <i>n.s.</i> | + | <i>n.s.</i> | + |
| Exam Performance | <i>n.s.</i> | <i>n.s.</i> | + | - |

+ indicates a significantly positive relationship ($\alpha = .05$).

- indicates a significantly negative relationship ($\alpha = .05$).

() parentheses indicate a marginally significant relationship ($\alpha = .1$)

n.s. indicates no significant relationship.

Achievement environment. Although the dispositional tendencies of achievement motivation and fear of failure are connected to achievement goal setting, Elliot (1999) stresses that dispositional tendencies are not the sole determinants of the types of achievement goals people will set in a particular situation. In fact, he argues that if the situational demands are strong enough (Caspi & Moffit, 1993), they can overwhelm

dispositions and play a central role in determining the types of goals people will set in that situation. Elliot proposes that this influence can happen at multiple levels of the goal hierarchy. At a deeper level, situational demands can activate achievement motivations by influencing whether people are focused on the possibility of success or the possibility of failure (activating need for achievement and fear of failure, respectively). Even if they are not strong enough to overwhelm a person's dispositional achievement motivation, situational demands of the achievement environment can impact whether these dispositional tendencies become manifested in approach or avoid goals. Like trait goal orientation, achievement motivation as an individual disposition may be somewhat malleable, allowing for training interventions to influence whether people are fundamentally motivated by approach or avoidance regarding implementation of their newly-learned skills in their work.

Goal stability and transfer. Elliot and McGregor (2001) emphasize the importance of goal stability and transfer in understanding achievement motivation and self-regulation around achievement goals over time. While they make no predictions about the stability of the achievement goals, they do present some exploratory empirical results concerning the stability of achievement goals over three measurements one month apart from each other. The patterns indicated by their findings are summarized in Table 4. According to their results, mastery-avoidance is the least stable type of achievement goal orientation. Other goal orientations appear to be stable over time, at least with respect to a single achievement context.

Table 4

Stability of Achievement Goals Over Time (Elliot & McGregor, 2001)

| Initial Goals | Subsequent Goals |
|----------------------|---|
| Mastery-approach | Mastery-approach ($\beta = .69$) (-) Performance-avoid ($\beta = -.16$) |
| Mastery-avoid | Mastery-avoid ($\beta = .67$) Mastery-approach ($\beta = .18$) Performance-approach ($\beta = .13$) |
| Performance-approach | Performance-approach ($\beta = .74$) |
| Performance-avoid | Performance-avoid ($\beta = .67$) |

Elliot (1999) suggests that the achievement situation can have a strong and even disposition-overriding influence on not only single goals a person might set, but also the orientation behind a whole series of goals the person might adopt in that setting. Research has not addressed the potential for achievement goal interventions introduced during training sessions to have lasting influence on learner goal setting and self-regulation once they return to their job with their newly-learned knowledge and skills. However, it does appear that goal orientation may be relatively stable over time, at least with respect to a particular achievement environment (Elliot & McGregor, 2001). An interesting implication of this finding is that if achievement goal orientation can be influenced by interventions introduced in the training session or in the workplace achievement climate, the resultant achievement goal orientations may have lasting impact

on the way the person sets subsequent goals. The intervention proposed in this investigation focuses on pointing people toward approach rather than avoid goals.

Summary of Approach and Avoid Convergence

As discussed above, approach and avoid perspectives play a central role in recent theories of self-regulation, self-discrepancy theory, and goal orientation. The incorporation of approach and avoid notions into these multiple streams of research and theory attest to their usefulness in understanding choice and goal pursuit. Additionally, as reviewed by Elliot (1999), approach and avoid dimensions have been included in a wide range of other theoretical perspectives. The distinction between moving toward a desired possibility versus moving away from an undesired possibility seems to be important for understanding human cognition, affect, behavior, and achievement.

Notions of approach and avoid dimensions have thus far been applied to training transfer in a limited way, with little attention to constructing a solid theoretical foundation for their application. In this investigation, approach and avoidance are incorporated into an intervention designed to influence the self-regulatory orientation in which people leave training and begin transfer. By encouraging people to establish approach goals and bound avoid goals with approach goals, the intervention attempts to sway people to adopt more of an approach orientation toward transfer. As a result, it is expected that people will develop a narrower, more focused set of transfer goals, providing more effective motivational direction for transfer.

Implementation Intentions

A third theoretical advance that has promise for helping us understand and improve transfer motivation is Gollwitzer's (1999; Gollwitzer & Brandstätter, 1997)

work on implementation goals and intentions. Gollwitzer and Brandstätter break the goal striving process down into four main components: predecisional, preactional, actional, and postactional. The predecisional phase involves setting preferences between concurrent wishes and desires, and the outcome of this phase is an intention to pursue a particular goal (e.g., “I intend to use the negotiation skills I learned in this training program.”). The preactional phase involves promoting the initiation of goal-directed actions, and the outcome of this phase is a more specific intention to perform a particular action at a particular time (e.g., “I am going to use the ‘broken record technique’ right now.”). The actional and postactional phases then involve the processes more typically thought of as self-regulation—detecting and reducing discrepancies between actions and the goal (e.g., Carver & Scheier, 1998).

Focusing on the preactional phase of goal striving, Gollwitzer and Brandstätter (1997) highlight a critical self-regulatory problem involved in goal pursuit—the initiation of goal-directed action. We are all familiar with having goals that we value highly (e.g., completing a dissertation), setting goals that provide appropriate direction for our actions (e.g., lists of next steps, focusing on what we are trying to accomplish), and yet having trouble buckling down in pursuit of our goals. Empirical research suggests that this experience is not uncommon; intentions typically account for only 20% to 30% of the variance in behavior (Gollwitzer, 1999). Gollwitzer and Brandstätter point out that trouble with initiating goal-directed behavior is especially problematic when the necessary behaviors for goal accomplishment are not well-practiced or routine. This is likely to be the case for new skills learned in training, making action initiation especially relevant for understanding training transfer.

Gollwitzer and Brandstätter offer three explanations for why it is sometimes difficult to initiate goal-directed behavior. The first involves conflict over the various options for behavior. Because most goals can be reached through many different behaviors, it can be difficult to decide exactly how to pursue a goal. This difficulty becomes less problematic at lower levels of the goal hierarchy, but even for fairly specific goals there are multiple behaviors consistent with goal accomplishment. The second explanation involves the triggering by the goal pursuit context of habitual behaviors that are not compatible with the new goal. For instance, the work environment in which transfer goal pursuit occurs is likely to trigger previous behaviors—in a negotiation setting, previous negotiation strategies and responses are likely to come to mind and perhaps be put into action before the newly learned strategies are even considered. Third, good opportunities for goal pursuit may escape our attention or be so fleeting that we are unable to seize them even if we notice them. For instance, we may fail to recognize a conflict situation as an opportunity for negotiation, or during a negotiation, we may not be able to react quickly enough when we do recognize an opportunity to use a particular skill, and thus “miss the moment.”

To solve these problems with action initiation and improve our self-regulatory ability to initiate goal-directed behaviors, Gollwitzer and Brandstätter (1997) propose the formation of implementation goals to support higher-order goals. Implementation goals explicitly connect two components: anticipated future situations that will present opportunities for goal pursuit and particular goal-directed behaviors that could be used in those situations. Implementation goals are more specific, lower in the goal hierarchy, or more proximal than the goals they service, but they are also characterized by being linked

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to a particular situation, which makes them a special subset of lower-order, proximal goals. Making the action-situation connection is expected to lead to implementation intentions, or the actual commitment to pursuing the implementation goal (e.g., “When my negotiation opponent does not respond to what I am saying, I will repeat what I said calmly and firmly until they respond.”). Motivation thus becomes linked to both the person’s commitment to their goals and to critical situations for goal accomplishment.

Theoretically, implementation goals and the associated intentions or commitment to those goals are hypothesized to have their effects by impacting memory accessibility and ease of retrieval for the goal pursuit opportunities and goal-directed behaviors (Gollwitzer, 1999; Gollwitzer & Brandstätter, 1997). Mentally linking situations and behaviors for goal pursuit is believed to create a direct connection in memory that mimics the connections for automatic skills (Bargh, 1997). As a result, the goal-directed behaviors take on properties of automaticity when they are activated by the situational cues—ready accessibility from memory (Dellarosa & Bourne, 1984) and rapid retrievability for implementation (Logan, 1988).

In support of these theoretical mechanisms, Aarts, Dijksterhuis, and Midden (1999) found evidence that implementation intentions aided goal accomplishment and that detection of situational opportunities, attention, and memory mediated this success. Empirical research also suggests that implementation intentions can override habits or form “instant habits.” Orbell, Hodgkins, and Sheeran (1997) found that in a control group, previous habit was the best predictor of following through on health behavior goals. In contrast, when implementation intentions were experimentally induced, the predictive power of previous habit disappeared, and implementation intentions led to

increased goal follow-through. Aarts and Dijksterhuis (2000) found that the speed effects of habit formation on action initiation could be matched by forming implementation intentions.

The effectiveness of implementation goals and intentions for improving self-regulation and goal attainment has been borne out in empirical research, particularly for goals people perceive to be difficult (e.g., they require less familiar and more complex action, require more unsuccessful attempts to get started) or when opportunities for goal pursuit present themselves for only a short time (Gollwitzer & Brandstätter, 1997). Gollwitzer and Brandstätter also found that implementation intentions lead to earlier goal completion and improved performance for people with high interest in the goal. This latter point stresses the potential impact of supplementing implementation intentions with high interest and importance of the goal, as covered in the overview of goal hierarchies and personal relevance given previously. In addition, Gollwitzer (1999) emphasizes the importance of learning for subsequent goal accomplishment. If action is initiated but poorly carried out, implementation intentions will not lead to better performance, only increased activity.

Research in health behaviors further supports the effectiveness of goal intentions for promoting various types of goal-directed health behaviors. Orbell, Hodgkins, and Sheeran (1997) found that when goal pursuit requires immediate actions but provides only long-term rewards, implementation intentions improved goal accomplishment even though goal commitment was high. Pairing particular situations with specific actions also has been found to improve chances for accomplishing daily goals such as taking vitamins and eating healthy foods (Sheeran & Orbell, 1999; Verplanken & Faes, 1999).

Milne, Orbell, & Sheeran (2000) found that induced implementation intentions substantially increased compliance with a goal to engage in vigorous exercise for twenty minutes within a week. Voluntarily created (rather than experimentally induced) implementation intentions have also been linked to following through with surgery recovery behaviors (Orbell & Sheeran, 2000). People who formed implementation intentions regarding the specific circumstances and ways in which they would follow the prescribed behaviors were more likely to actually do them than those who did not form implementation intentions, even when commitment to recovery behavior goals was high. Similarly, specific instructions on how, when, and where to engage in health behaviors have been found to increase performance of those behaviors more effectively than fear appeals promoting goal intentions (Leventhal, Singer, & Jones, 1965).

Thus, implementation goals have been found to be an effective self-regulatory strategy between forming a goal and actually acting on it. The research shows that strong intentions to achieve a goal are not always enough to prompt goal-directed behavior. Implementation intentions effectively increase the ability of goals to lead to action. Moreover, implementation goals seem particularly relevant to training transfer situations because of the likelihood that there will be multiple options for goal pursuit, habitual or previous skills used effectively in the transfer context, and fleeting or unnoticed opportunities to use the trained skills.

Summary

To summarize, there is a general consensus among training researchers and practitioners that there is a “transfer problem”—that is, people are not completely successful in applying what they learn in training. Research that has attempted to



discover why this is so has focused primarily on training design to maximize learning and reinforcement in the work environment. However, learning and environmental support have not been able to completely explain variation in transfer performance, nor successfully increase it to desired levels. One possible explanation for low and varied transfer performance despite learning and support is that people are not actually using the skills they learned in training.

Along this line of thought, recent transfer research has turned to individual motivation as a key factor in the training transfer process. Applications of expectancy theory to training transfer have produced disappointing results, failing to shed much light on the “transfer problem.” Self-efficacy theory has been applied to transfer with more success, but without leading to a better understanding of how people translate their self-efficacy beliefs into processes and strategies to help them transfer their skills successfully. Absent from theories of transfer motivation are recent advances in motivational theory related to self-regulation and goal pursuit. Goal setting makes appearances in some of the interventions that have been researched (i.e., self-management and action planning). However, more recent advances in our understanding of the complexities of human goal striving such as goal hierarchies, approach and avoidance motivation, and implementation goals have not yet been incorporated into theories of transfer motivation.

Research and theory in these areas has a great deal to offer in terms of understanding and influencing individual motivational processes during transfer. Drawing from these ideas, this study proposes a model of transfer motivation centered on personal relevance, self-regulatory focus, and implementation intentions. Further, I

design an intervention to improve training transfer motivation by influencing these motivational constructs, with the aim of increasing actual attempts to use the training as well as transfer performance.

Current Applications of Advances in Motivational Theory to a Prevalent Transfer Intervention

Are the advances in motivation theory I have described completely absent from the training transfer literature? No, they are not. As noted earlier, transfer researchers have focused on training design, trainee characteristics, and the work environment as key factors in transfer, and when they have examined transfer motivation, they have predominantly addressed it from perspectives of expectancy and self-efficacy. However, training practitioners, realizing that they cannot fully maximize training transfer through their training design, that they do not have control over selecting trainees based on individual differences linked to transfer, and that they can exert little control over the transfer environment or the supervisor's behavior, have been advocating motivational interventions directed at the trainee (Broad & Newstrom, 1992; Eittington, 1996; Silberman, 1995). These interventions are numerous, but fall under three main categories: action planning (a.k.a. goal setting, behavioral contracting, work statements, self pledges), self management (a.k.a. self-monitoring, follow-up assessment surveys), and relapse prevention (a.k.a. obstacle assessment, resistance forces). The most common of these is action planning; thus, action planning will be focused on as a standard type of transfer intervention in this investigation.

Action planning is “a commitment to engage in a new behavior resulting from the impetus of the training experience” (Eittington, 1996, p. 420). In its simplest forms,

action planning involves a list of what the person intends to do (goals) following the training. Often, it also includes more specific information, including strategies for achieving the goals, deadline dates for achieving the goals, resources required to accomplish each goal, and criteria to determine whether or not goals are being met. (Action planning will be used as a control condition in this investigation; for a prototypical action planning exercise, see Appendix E.) To a limited degree, the motivational concepts discussed in this investigation—personal higher-order goals, approach and avoidance goals, and implementation goals—are embedded in action planning. However, because they are not explicitly incorporated in the intervention, their impact is left to be haphazard and largely dependent on individual predispositions of the trainees using the action planning guides.

Personal Higher-Order Goals in Action Planning

Various levels of goal hierarchies are addressed only minimally in action planning interventions. When people establish their action plan goals, their goals by definition fall at some level of a goal hierarchy. Because action planning interventions often encourage people to set “specific” goals, the goals included in the action plan are typically at a middle level, defining outcomes people would like to achieve or behaviors they intend to use. Many action planning interventions then encourage people to specify lower-level strategies they will employ in order to meet each of their goals. Thus, standard action planning interventions typically push people to establish goals representing several, but fairly low, hierarchical levels, although there is room for quite a bit of variation both between and within people.

From a motivational perspective, drawing on recent research on goal hierarchies, what is missing in standard action planning interventions is a focus on higher-order goals associated with training transfer. Action planning does not address nor acknowledge the importance of higher-order goals in motivating transfer. Action planning interventions implicitly assume that the person desires to apply the training because of either personal motivation or workplace requirements and incentives. Nowhere in the typical action planning exercise is the issue of interest in applying the training raised. Instead, the immediate focus is on setting goals for *how* the person will use the skills, skipping entirely the question of *whether* the person wishes to apply the skills at all or *why* they might wish to do so.

By ignoring the higher-order goals people are pursuing, action planning allows the impact of these goals to be largely accidental, shaped by the “tell-and-sell” ideas that may have been included in the training program to inform trainees about why they *ought* to want to use the skills, and personal dispositions of trainees that may have led them to independently connect some aspect of the training to their own goals. Thus, in typical action planning interventions, some trainees will be likely to set goals that are attached to their higher-order goals and sense of personal accomplishment, while others will be likely to set goals that are much further removed from themselves, anchored instead on training content, specific behaviors, or work goals that are not as likely to be high priorities and can be easily discarded.

Approach and Avoid Goals in Action Planning

Motivational direction encompasses two qualitative aspects of goal striving: the specific targets the person is trying to accomplish, and whether they are moving toward

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(approaching) or away from (avoiding) the targets. In typical action planning interventions, the target content is addressed by having people set specific transfer goals and detail even more specific strategies for achieving those goals. Thus, as long as people have learned the training content reasonably well and receive some guidance on how to formulate their goals, they should benefit from establishing these specific targets. In contrast, the motivational direction, or self-regulatory focus, with which people are moving to accomplish their goals is almost completely ignored in action planning interventions. No explicit attention is given in action planning to influence the direction of goals people set, and the impact on whether people adopt approach or avoidance stances with respect to their goals is probably minimal. One exception may be that action planning interventions influence people to set approach goals at the level of the behavioral or outcome goals that form the items on their action plans. Instructions for action planning typically prompt people to “tell when and how you plan to apply material learned in this course.” The framing of these instructions will most likely lead people to establish approach goals about what they intend to do; however, the possibility still exists for people to state goals in terms of what they intend to stop doing, what they will try not to do, etc.

Moving away from this level in the goal hierarchy, standard action planning interventions pay no attention to whether approach or avoidance is the person’s dominant self-regulatory focus. Moving down to the strategy level, where people indicate smaller sub-steps they will take to accomplish their goals, people are free to set either approach or avoidance strategies. Moving up to the higher-order goal level, which is not included in action planning, people are free to have any number of higher-order goals, approach or

avoid, that they are striving toward through their action planning goals, if they make these connections at all. With limited influence on self-regulatory focus embedded within action planning, people are likely to establish goals that reflect their dispositional tendencies (e.g., achievement motivation or fear of failure), though they may be swayed toward approach goals at the behavioral or outcome level in the context of action planning.

Implementation Goals in Action Planning

Implementation intentions are not addressed directly in action planning. Typical action planning interventions have people set deadlines for goal accomplishment, list required resources to support goal accomplishment, name measures that can be used to assess progress, and indicate specific steps they can take to reach their goals (the behavior side of implementation goals), but make no specific reference to the particular situations in which people will enact the goals or sub-steps they have listed. While some people might naturally create implementation goals (Gollwitzer & Brandstätter, 1997), there is nothing embedded in typical action planning interventions to prompt them to do so. Current research on implementation goals suggests that they are an important and potentially powerful way to make good intentions more effective by forming direct connections between particular situational opportunities for transfer and specific trained behaviors. Typical action planning interventions ignore the potential importance of this aspect of goal striving.

Action planning, one of the most common interventions designed to improve transfer by guiding and directing individual motivational processes, does not explicitly incorporate several recent advances in motivational theory. By ignoring these aspects of

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motivation and allowing them to operate freely, trainers may be missing out on critical factors that could better position people to successfully pursue and achieve their post-training action plans. The purpose of this investigation is to design an intervention that purposefully embeds theoretical advances in our understanding of goal hierarchies and higher-order personal goals, approach and avoid goals, and implementation goals to improve training transfer.

Conceptual Model of Transfer Motivation

The purpose of this study is to design an intervention impacting training transfer motivation, test the intervention's effectiveness compared to a prototypical action planning intervention, and investigate the motivational processes through which these interventions impact transfer behavior and transfer performance. Drawing from advances in motivational research that have not previously been explicitly applied to training transfer, I designed a three-component intervention that focuses on improving transfer by applying three concepts from self-regulation and goal striving theories to increase motivational intensity, hone motivational direction, and strengthen motivational persistence: goal hierarchies, approach and avoidance, and implementation goals.

Figure 1 presents the conceptual model that guides this research. The model focuses on motivational processes through which the intervention leads people to increase their skill transfer attempts. I propose that the intervention, which guides people to form connections between the training skills and their personal higher-order goals, establish approach goals for transfer, and connect the training skills to particular situational opportunities, will shape training participants' motivational states and processes. Further, transfer motivation will increase the extent to which people attempt

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to apply the skills they learned in training. Finally, transfer behaviors will be positively related to transfer performance. Learning and self-efficacy are also expected to play direct and moderating roles in shaping transfer behavior and performance.

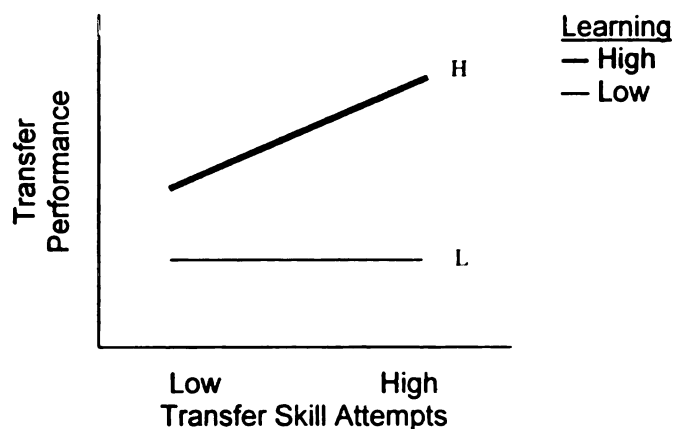
Effects of Transfer Behavior on Transfer Performance

Many training transfer investigations select either transfer behavior or transfer performance as the criterion variable (Baldwin & Ford, 1988; Ford & Weissbein, 1997). In an effort to better understand the relationship between quantitative attempts to transfer and the qualitative performance results of those attempts (and the impact of transfer motivation on both of these areas), this investigation incorporates both of these transfer criteria. Capturing both behavioral and performance criteria will allow a more precise understanding of ways to improve transfer. For instance, how closely connected to high quality of transfer performance are frequency of skill attempts and variety of skill attempts? When transfer performance quality is low, is it because people are doing a poor job applying skills, or are they failing to even try to apply the skills? Do deficits in transfer quality occur when people try to apply too many of the skills they learned?

Ultimately, what is important to people and organizations is effective performance on tasks related to the trained skills (i.e., transfer quality). People do not wish to use their skills to no avail, nor will people who apply trained skills ineffectively contribute positively to the organization. Behavioral application of the trained skills is a necessary condition for effective transfer performance. If the skills are not used, they cannot be used well. In general, people who exhibit more attempts to apply the skills they learned in training are expected to exhibit superior transfer performance.

However, skill *use* is not sufficient to ensure successful transfer performance; the relationship between transfer behavior and transfer performance is expected to be moderated by learning. Specifically, knowledge about how and when to use the skills is expected to impact the quality of transfer performance. People who leave training with higher levels of procedural and conditional knowledge about how and when to use the skills will be more likely to realize successful performance from their transfer attempts than will people with lower levels of knowledge. Thus, the relationship between transfer behavior and transfer performance will be enhanced when learning is high. In contrast, lower levels of learning should weaken the positive relationship between transfer behavior and transfer performance. In this case, use of the trained skills will not always result in improved performance quality.

Figure 2. Expected moderating effect of learning on the relationship between transfer behavior and transfer performance



Hypothesis 1a. Transfer behavior will be positively related to transfer performance. The extent to which people attempt to apply the trained skills will be positively related to their transfer performance scores.

Hypothesis 1b. Learning will moderate the relationship between transfer behavior and transfer performance, such that this relationship will be more positive when learning is high than when learning is low.

Effects of Transfer Motivation on Transfer Behavior

The goal of impacting peoples' motivational states following training is to increase their transfer behavior. Actual instances of transfer behavior are a necessary first step toward successful transfer performance. The model presented in this investigation predicts that the motivational processes affected by the experimental transfer intervention will positively impact the extent to which people make behavioral attempts to use what they have learned in training. To provide some explanation for how the intervention affects transfer motivation, two motivational mechanisms are hypothesized for each intervention component. Each intervention component is specifically designed to impact a particular motivational construct; these constructs are labeled "target motivational constructs." Next, another set of motivational mechanisms are believed to mediate the impact of the primary motivational constructs on transfer behavior; these are labeled "mediating motivational mechanisms." Continuing to work backwards through the conceptual model guiding this research, this section first presents hypotheses concerning the relationship between the mediating motivational mechanisms and transfer behavior, and then turns to hypotheses regarding the impact of the target motivational constructs on the mediating mechanisms.

Transfer Behavior

In this investigation, transfer behavior is defined as an attempt to use skills learned in training. Transfer *behavior* is distinguished from transfer *performance* in that

the former is a description of attempts to use the training, while the latter is an overall assessment of whether or not the behavioral attempts have been successful. Two dimensions of transfer behavior are considered—frequency and variety. Frequency of transfer behavior simply describes the number of times the person tried to use one of the skills learned in training. Variety distinguishes whether a person tried to use multiple skills or selected only a few of the skills to apply.

Self-Efficacy

Because self-efficacy has been a popular and effective motivational construct in training transfer research, it is included in this investigation. As discussed earlier, in the context of training transfer, social learning theory predicts that greater self-efficacy will lead to greater motivation to transfer training. This prediction has been supported by studies showing that post-training self-efficacy has a positive effect on performance of trained skills because it improves motivational persistence as well as having other beneficial consequences (Colquitt, LePine, & Noe, 2000; Gist, Stevens, & Bavetta, 1991; Stevens & Gist, 1997). Ford, Quiñones, Sego, and Sorra (1992) also found that self-efficacy is related to attempts to use a broader array of trained skills and attempts to use the more difficult skills on the job. However, in their study, self-efficacy was not related to the frequency of attempts to use trained skills. In the transfer motivation model proposed in this investigation, self-efficacy is expected to impact transfer behavior attempts. People who leave training with higher self-efficacy regarding their ability to effectively use the trained skills are expected to apply a greater number and variety of the skills in transfer situations. Self-efficacy is expected to be positively related to transfer behavior frequency despite the nonsignificant findings in the Ford et al. study because the

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behaviors in this study are more discretionary than the basic technical skills taught to Air Force airmen, and the transfer period used in this investigation is shorter-term than the four month period Ford et al. measured. Thus, behavior frequency is expected to be more susceptible to the influences of self-efficacy.

Hypothesis 2. Self-efficacy will be positively related to the frequency and variety of transfer behavior.

Effects of the Mediating Motivational Mechanisms

The first set of hypotheses relevant to the constructs targeted by the experimental transfer motivation intervention proposed in this study regard the effects of the hypothesized mediating motivational mechanisms on transfer behavior. These constructs are expected to have a more proximal impact on transfer behavior than the motivational constructs targeted by the intervention. The mediating constructs represent the processes through which the target constructs are expected to have their effect on transfer behavior. They include competence valuation, goal variety, and situational cueing.

Competence Valuation

Competence valuation is a construct that represents motivational intensity, or the quantity of achievement motivation. Competence valuation has been defined as the degree to which a person feels that competence on a particular task is important (Elliot et al., 2000; Harackiewicz, 1989). Similar in some senses to the valence component of valence-instrumentality-expectancy theory (VIE theory; Vroom, 1964), competence valuation describes the value the person places on skill competence rather than the value placed on particular outcomes believed to be achievable through competent use of the skill. Competence valuation thus highlights intrinsic rather than extrinsic motivation

(Deci, 1975; Elliot, Faler, McGregor, Campbell, Sedikides, & Harackiewicz, 2000). In the case of training transfer, competence valuation is the degree to which the person values acquiring competence at what he or she learned in training. For example, with respect to negotiation training, competence valuation describes the degree to which a trainee feels that it is important to be good at negotiation.

Competence valuation has been found to be positively connected to achievement goal striving; Elliot and McGregor (2001) found that higher competence valuation was connected to stronger endorsements of achievement goals of all types (mastery-approach and -avoid and performance-approach and -avoid). Based on the connection between goals and behavior, increases in goal striving can be expected to lead to increases in transfer behavior. People are more likely to invest effort in developing and using skills that are important to them. Thus, competence valuation should be positively associated with transfer behavior attempts.

Hypothesis 3a. Competence valuation for the training content will be positively related to frequency and variety of transfer behavior.

Goal Variety

Establishing goals for training transfer is a motivational mechanism or strategy that provides direction and focus to channel attempts to use trained skills. Goals can be described according to many attributes (e.g., difficulty, specificity, mastery or performance orientation; Austin & Vancouver, 1996). Goal variety reflects the breadth of newly learned skills the person intends to try to apply. Rather than focusing on intra-goal characteristics, goal variety is an attribute of a person's entire set of transfer goals, describing the extensiveness of the person's goal content. Goal variety can be thought of

in a motivational sense, because it quantifies the targets toward which the person intends to exert effort.

Because goals exert a guiding force on behavior (Austin & Vancouver, 1996; Carver & Scheier, 1998), goal variety is expected to be positively related to transfer behavior. Having a variety of transfer goals should lead to a greater variety of transfer skill attempts, because each goal will demand use of a particular skill in order to reduce the performance-goal discrepancy. Repeated use of just one or two skills would not be sufficient to meet multiple goals for using a variety of skills. Assuming the person is committed to all of the transfer goals, successful self-regulation for a wide variety of goals will require use of a wide variety of skills. In contrast, if transfer behavior efforts are focused on a narrow set of transfer goals, the person is likely to be motivated to try to use only the narrow set of behaviors required to meet those goals, ignoring the other skills learned in training.

In essence, goal variety also captures the total number of transfer goals a person sets, since it is unlikely that people will set numerous redundant goals. Thus, goal variety should also lead to a greater frequency of transfer attempts. When there are more goals to strive for, the person will have more discrepancies to reduce, and therefore will need to engage in more transfer behaviors in order to successfully achieve the goals. Whereas a person with only a couple of transfer goals might be satisfied after only a couple of transfer attempts, a person with a greater number of transfer goals (varied or not) will find it impossible to successfully meet all of his or her goals after only a few transfer attempts. In sum, the more transfer goals a person has, and the greater the number of skills targeted by those goals, the more likely the person is to display many and varied

training behaviors. People with few goals or with goals representing only a small set of the skills learned in training are likely to show less frequent and less varied attempts to apply the training.

Hypothesis 3b. Transfer goal variety will be positively related to frequency and variety of transfer behavior.

Situational Cueing

Situational cueing describes the extent to which particular situations prompt recall of particular behaviors relevant to that situation. Gollwitzer (1999) implicates the mental link between effective goal-directed behaviors and suitable opportunities for enacting those behaviors as the critical mechanism through which implementation goals affect behavior. The link is formed when a person establishes an implementation goal, and later helps the person to follow through and enact the behavior with the situation arises. The identification of appropriate situational opportunities is expected to make it easier for a person to remember when and where he or she wanted to begin goal pursuit, and also make the selected situation more easily recognizable when it arises, even when the person is engaged in other activities. In addition, Gollwitzer (1999) argues that the connection of the situation with a particular behavior is crucial for prompting actual goal pursuit. Simply recognizing the situation when it arises is not enough if the person cannot remember what he or she is supposed to do in that situation. Fortunately, using transfer situations as cues for behavior has an advantage over the old “string around your finger” trick¹ because situations have meaningful associations with particular sets of potential behaviors. Still, the situational cue must be able to isolate the *desired* behavior in

¹ “Tying a string around your finger originated from the Anglo-Saxons...who thought that tying a string around one’s finger kept an idea from escaping—in effect, tying the idea to one’s self.” (Midhnott Sol Regintroth, 2001).

memory to be optimally effective (as if you were tying a blue string around your finger to remind yourself to knit a blue mitten).

When situational cues are strongly linked to particular behaviors, Gollwitzer (1999) argues that their connection acquires features of automaticity. In other words, the tendency to exhibit the linked behavior when the situation arises will be similar to that of a habit or a well-learned automatic skill (Bargh, 1997). Automatic skills are characterized by improved and involuntary accessibility (Dellarosa & Bourne, 1984; Treisman, Vieira, & Hayes, 1992), rapid memory retrieval (Logan, 1988) and direct access to long-term memory rather than retrieval of a representation for working memory (Strayer & Kramer, 1990), improved short-term and long-term retention, applicability of skills, and endurance on tasks (Dougherty & Johnston, 1996), speeded initial processing (Ahissar, Laiwand, & Hochstein, 2001), and immunity to across-task interference or ability to perform simultaneously with other tasks (Treisman, Vieira, & Hayes, 1992). Initiation of automatic skills is hypothesized to be relatively easy, because few cognitive resources are required due to automatic rather than controlled processing. As a result of reducing the cognitive load of simple steps, performance at higher levels can be improved (Condino, Im-Humber, & Stark, 1990). Gollwitzer and Brandstätter (1997) argue that the stimulus recognition and memory enhancements afforded by skill automaticity should make behavioral enactment easier even when embedded in a complex environment full of distractions (e.g., a work environment). Situational cueing of training behaviors should therefore improve transfer behavior by making it easier for trainees to remember to use their skills in transfer environments.

Situational cueing, or the extent to which transfer situations bring to mind trained skills, is expected to increase transfer behavior attempts. Situational cueing, and its association with skill automaticity, should make opportunities to perform trained skills (Ford, Quiñones, Sego, & Sorra, 1992) more salient to people and the associated transfer skills more readily available in memory. In addition, because people should be able to access knowledge about the skills more quickly and easily, they will be more likely to be able to actually implement the skills rather than missing opportunities to do so because “the moment has passed” (Gollwitzer, 1999). Both transfer behavior frequency and transfer behavior variety are expected to be impacted by situational cueing. Frequency will be increased due to the ready availability of trained skills to put into action. Variety is also likely to increase as a result of situational cueing, although this relationship is expected to be influenced by both the person’s goal variety and the variety of situational opportunities that present themselves to the person in a given time period. Low situational cueing will cause people to have difficulty recalling the skills at appropriate moments during transfer opportunities, and cause confusion or delays regarding how to put the skills to use. This lack of readiness to act will result in reduced frequency and variety of transfer behavior attempts.

Hypothesis 3c. Situational cueing of transfer skills will be positively related to frequency and variety of transfer behavior.

Effects of the Target Motivational Constructs

The second set of hypotheses relevant to the constructs targeted by the experimental transfer motivation intervention proposed in this study regard the effects of the target motivational constructs on the mediating motivational mechanisms. The target

constructs are expected to be influenced by the intervention and to set in motion motivational processes that in turn influence transfer behavior as described above. The target constructs include perceived personal relevance, self-regulatory focus, and implementation intentions.

Perceived Personal Relevance

Perceived personal relevance describes the extent to which a person sees connections between the trained skills and his or her personal goals. Note that it is the perception of relevance, and not actual relevance, that is believed to be important in transfer motivation. The links between training skills and personal goals that create the sense of relevance connect the training to the person's values or sense of self. The ability of the trained skills to aid discrepancy reduction and goal accomplishment lends value to the skills. If these connections to higher-order personal goals are perceived to be fairly direct or can be made to multiple goals, the value of the trained skills should increase even further (Carver & Scheier, 1998). It follows that if the skills are valued, a person's interest in becoming competent in their use should increase. Competence valuation describes the degree of interest a person has in becoming good at a particular area.

Competence valuation would be expected to be high when the training is connected to a value the person holds or to his or her sense of self. Competence valuation can be thought of as representing the extent to which the person holds competence on the task as a higher-order goal. In this study, competence valuation is assumed to be malleable. The intervention attempts to increase competence valuation by guiding people to think about important personal situations and goals which negotiation skills might help them achieve. People who see the trained skills as more personally

relevant or related to their sense of self and personal goals are expected to have higher competence valuation for the skills they learn in training.

Hypothesis 4. Perceived personal relevance of trained skills will be positively related to competence valuation.

Self-Regulatory Focus

Regulatory focus (Higgins, 1997) is a construct that describes the valence of the strategies a person uses in goal pursuit. A person with an approach, or promotion, regulatory focus uses active strategies for goal accomplishment. For an approach, or “do” goal, an approach focus leads people to try to do behaviors that will lead toward the goal. For an avoid, or “do not” goal, an approach focus leads people to try not to miss opportunities to do things that will lead away from the goal. In either case, the focus is one of action to promote goal attainment. In contrast, a person with an avoid, or prevention, regulatory focus attempts to avoid strategies that counteract goal attainment. For approach goals, an avoid focus will lead people to try not to do behaviors that will lead away from the goal. For avoid goals, an avoid focus will lead people to try not to do behaviors that bring the goal closer. The focus of avoid orientation is inaction to prevent failure to reach the goal.

In the training transfer context, people with an approach regulatory focus should be interested in taking advantage of opportunities to use the trained skills or achieve positive outcomes when they are pursuing approach goals. When pursuing avoid goals, people with an approach focus should be interested in not letting opportunities to use their skills or achieve positive outcomes pass them by. Wishing to avoid errors of omission (Higgins, 1997), approach-focused people may also be interested in not leaving

out any of the skills they have learned in training. Thus, approach regulatory focus is expected to increase transfer goal variety. People who are focused on taking advantage of opportunities, not letting opportunities for discrepancy-reduction slip away, and not leaving out skills that could help them achieve their goals are expected to think about using a wider variety of the skills learned in training.

In contrast, people entering transfer situations with an avoid regulatory focus should be interested in leaving out behaviors that might not bring their goals to use their skills or achieve positive outcomes closer. When pursuing avoid goals, people with an avoid focus should be interested in making sure they do not work against themselves by using the skills incorrectly, using old skills the training is meant to replace, or doing something to limit their chances of achieving more positive outcomes. Thus, avoid regulatory focus is expected to lead people to have less varied transfer goals. People who are focused on making good choices about when and how not to act, and not messing up when they do act, are expected to think about using a more limited variety of the skills learned in training.

Hypothesis 5. Self-regulatory focus will significantly influence goal variety. An approach focus will be positively related to goal variety. An avoid focus will be negatively related to goal variety.

Implementation Intentions

Implementation intentions are the willful desire to perform particular actions in particular situations (Gollwitzer, 1999). This commitment to pursuit of situationally-embedded goals that will lead to higher-order goals is hypothesized to improve goal attainment rates. One of the key mechanisms through which implementation goals are

believed to have their effect on behavior is the formation of and commitment to mental connections between specified situational cues and the relevant goal-directed behaviors. People selectively perceive their environments according to various mental sets (Pashler, Johnston, & Ruthruff, 2000), such that some features are more salient than others. The mental representation of anticipated situations for goal pursuit in advance of their occurrence should make those situations more salient and recognizable when they occur. Once these situations become salient, they should also promote accessibility from memory of the goal-directed behaviors with which they were encoded in memory. Thus, the situations will act as cues for the behaviors when they are encountered.

In a training transfer context, situational cueing should be apparent through increased perceptions of opportunities to use the trained skills, and perceptions that the trained skills are easily accessible from memory while the person is in situations involving opportunities to use the trained skills. The relevant trained skill may not always be enacted when cued by the situation, but will be brought to mind for consideration. Situational cueing is expected to be higher when people have formed strong implementation intentions. By forming action-situation connections mentally, and committing to them motivationally, people should create a strong tendency for the relevant situations to cue the relevant behaviors when encountered. In contrast, situational cueing is expected to be weaker when people have not previously made direct connections between situations and behaviors and committed to performing the behaviors when the situation arises.

Hypothesis 6. Intentions to implement particular trained skills in particular situations will be positively related to situational cueing.

Effects of the Transfer Intervention on Transfer Motivation

Most importantly, this model predicts that the motivational components embedded in the experimental transfer intervention (personal higher-order goals, approach goals and bounded avoid goals, and implementation goals) will positively impact the extent to which people are motivated to attempt to use the skills they have learned. The motivational states and processes that the intervention surfaces and puts in motion are the key mechanisms through which the intervention is ultimately expected to increase transfer behavior and performance.

Personal Higher-Order Goals

One requirement for motivation to transfer is a basic level of caring about the knowledge, skills, and attitudes learned in training and a desire to use them. This caring and desire provides motivational intensity directed toward achieving transfer. As discussed above, the extent to which people feel that the training is personally relevant to them is expected to increase their competence valuation, or how much they care about being good at the skills. By influencing the amount of energy and effort the person is willing to direct at transfer, competence valuation is expected to increase transfer behavior. If people do not feel that the training is personally relevant to them, they are likely to dismiss it as useless without even trying to use the skills.

Current training programs typically address this challenge through training design or workplace environment interventions. Attempts to increase peoples' motivational intensity are embedded in training content as attention-grabbing examples of successes achieved when training content is used or stories of common failures that could be prevented through use of the training. Some organizations set expectations and reward

contingencies to specifically encourage people to use trained skills. Some companies make sure supervisors are involved in helping people plan to use new skills or providing opportunities for skill use. Apparently content with these options, developers of action planning guides have not incorporated specific elements to increase motivational intensity. Rather, this basic desire to apply the training is assumed to already exist in trainees when they write action plans.

Advances in self-regulation theories related to goal hierarchies, self-concept, and personal relevance suggest another alternative for impacting motivational intensity—direct intervention to help people discover and define why the training is personally relevant and meaningful to them in light of their individual situations and goals. The existence of goal hierarchies suggests that there are multiple ways to link trained skills and behaviors to learners' goals. However, Carver, Lawrence, and Scheier (1996) argue that goals at more abstract hierarchical levels are more important to a person's overall sense of self, contribute more strongly to the person's emotional states, and are less easily discarded than goals at more specific levels. Linked to a person's sense of self, higher-order goals encourage people to act not only to accomplish specific achievements, but also to choose activities that support their definition of who they are or wish to become (Markus & Nurius, 1986; Markus & Wurf, 1987). This implies that abstract goals are, ultimately, the most important and motivating forces on behavior. Thus, it follows that transfer will be greater when trained skills are linked to the accomplishment of fundamental values the person holds, rather than only linked to goals lower in the goal hierarchy. Trained skills linked to the person's sense of self and self-worth are likely to

result in greater transfer than those that do not appear to be connected to values the person holds.

Approaching the challenge of encouraging people to *want* to use trained skills from an individual motivational perspective highlights the importance of goals that are highest in a person's hierarchy and closest to their sense of self for driving behavioral choices. We all know from experience that we will work harder to learn and use things that we care about. The research on goal hierarchies and goal importance suggests that transfer motivation will be improved when transfer goals take on importance by being connected to higher-order personal goals. The model presented in this study proposes that it is possible to influence perceived personal relevance by guiding people to connect training with personal experiences and goals. Explicitly asking people to find connections between the training skills and their own goals, rather than goals suggested by the trainer, should improve the person's sense of personal relevance.

Hypothesis 7. People who participate in the experimental transfer motivation intervention, which incorporates forming connections to personal higher-order goals, will report higher perceived personal relevance of the training content than those who participate in a typical action planning intervention or receive training without a transfer intervention.

Approach Goals & Bounded Avoid Goals

It is not enough for people to simply want to use the skills they learned in training; they must direct their efforts toward appropriate targets that will encourage transfer attempts and ultimately successful performance. Two aspects of goal targets are

important for providing direction: goal content (what the person is focusing on) and goal valence (whether the person is moving toward or away from the target).

Current training programs typically address the challenge of motivational direction through training design, workplace environment interventions, or post-training goal setting. Training content influences motivational direction by focusing attention on specific, discrete behaviors and skills that are meant to be targets for trainee behavior. In some cases, training content also influences goal valence by highlighting either positive (approach), negative (avoid), or both aspects of the skills being trained (Baldwin, 1992). Organizational performance expectations and reward contingencies may also clarify appropriate targets for behavior, and make reward (approach) or punishment (avoid) more salient. Post-training goal setting interventions (e.g., action planning, or less commonly, self management) give people goals to strive for and some structure to guide their accomplishment. However, beyond basic admonitions to set specific, challenging goals, these interventions usually include very little guidance regarding the kinds of targets people should establish. Furthermore, no explicit attention is given to goal valence, although current motivational theory suggests that this is an important aspect of goal striving that has broad implications for behavior, performance, and affect (Carver & Scheier, 1998; Elliot, 1999; Higgins, 1997). The model presented in this study proposes that it is possible and desirable to provide more specific guidance regarding goal valence. Rather than leaving this important aspect of goal pursuit to chance or personal disposition, the intervention presented here attempts to directly influence goal valence to help people pursue their transfer goals in better ways.

Regulatory focus (Higgins 1997) is a construct that describes the valence of the strategies a person uses in goal pursuit. A person with an approach, or promotion, regulatory focus uses strategies that actively move toward a target. It is important to note that regulatory focus describes the person's *strategic* orientation and activities toward the goal, not the valence of the goal itself. Approach strategies, which are lower in the goal hierarchy than the goal, can be used to attain either approach or avoid goals. Thus, an approach focus can lead to trying to do behaviors that will lead to an approach goal or trying not to miss opportunities to do things that will lead away from an avoid goal. In either case, the focus is one of action to promote goal attainment. In contrast, a person with an avoid, or prevention, regulatory focus attempts to avoid strategies that counteract goal attainment. An avoid focus can lead to trying not to do behaviors that will lead away from an approach goal or trying not to do behaviors that bring an avoid goal closer. The focus of avoid orientation is to prevent failure to reach the goal.

The second component of the transfer motivation intervention proposed in this study is designed to influence self-regulatory focus. The proclivity toward action engendered by an approach focus is likely to be more conducive to promoting transfer behavior than an avoid focus, which favors inaction (Higgins, 1997). Approach has generally been theoretically and empirically associated with more positive outcomes than avoidance in other research areas as well. For instance, Carver, Lawrence, and Scheier (1996) propose that approach goals will be linked with elation and depression, whereas avoid goals will be linked with relief and anxiety. Anxiety has been found to have a negative relationship with motivation to learn, motivation for training, and pretraining and post-training self-efficacy (Bandura, 1982; Colquitt, LePine, & Noe, 2000; Jex &

Gudanowski, 1992; Martocchio, 1994; Warr & Bunce, 1995; Webster & Martocchio, 1993). Training interventionists have clearly devoted attention to reducing anxiety during training and transfer (e.g., relapse prevention). In achievement motivation research, approach goals have been empirically linked with positive learning, affective, and performance outcomes such as learning engagement, need for achievement, self-determination, and deep processing, while avoid goals have been associated with a static view of intelligence, fear of failure, surface processing, and disorganized learning (Elliot & McGregor, 2001). Emotionally, avoid goals were associated with anxiety, worry, and emotionality, while approach goals were free of these connections.

Thus, the intervention in this investigation aims to increase approach self-regulatory focus and to decrease avoid self-regulatory focus. The intervention guides people to set approach goals for training transfer. Higgins (1997) points out that strategic regulatory focus can either match or mismatch goal valence, but notes that both dispositional and situational characteristics will influence which type of strategy people will choose to pursue their goals. Thus, it is expected that goal valence will exert some influence on strategy choice, making approach strategies somewhat more common when approach goals are set. To strengthen the press to adopt an approach focus even further, the intervention also addresses avoid goals. Recognizing that some people are dispositionally likely to hold avoidance goals even when instructed to set approach goals, the intervention encourages people to acknowledge their avoid goals and then bound them with approach goals (Carver & Scheier, 1998). This is expected to provide further situational pressure to adopt an approach focus toward goal pursuit. As a result, people should be more focused on approach than avoid as they leave training and begin transfer.

The limited inclusion of approach and avoid motivation in standard action planning interventions should have a similar, but weaker, effect on people's focus on approach versus avoidance.

Hypothesis 8a. People who participate in the experimental transfer motivation intervention, which incorporates setting approach goals and bounding avoid goals with approach goals, will report higher approach self-regulatory focus and lower avoid self-regulatory focus than those who participate in a typical action planning intervention or receive training without a transfer intervention.

Hypothesis 8b. Because standard action planning interventions incorporate approach motivation to some degree, people who participate in standard action planning will report higher approach self-regulatory focus and lower avoid self-regulatory focus than those who receive training without a transfer intervention.

Implementation Goals

Despite having good goals to pursue and good intentions to pursue them, people often still have trouble accomplishing their goals (Gollwitzer, 1999). The problem is a failure to initiate action in pursuit of the goal, which has been linked with indecision about how to pursue the goal, inability to override habitual behaviors triggered by the relevant situation, and failure to identify specific situations as opportunities for goal pursuit (Gollwitzer & Brandstätter, 1997). All of these are potentially relevant to training transfer situations and pursuit of transfer goals.

Current training programs address issues of action initiation through training design and action planning interventions. Training content is often delivered in enough

detail to provide some guidance for how to implement particular skills, and practice time is sometimes included to allow people to begin to form habits in using the new skills. Specific situations for using the skills might also be provided or elicited during the training. However, this is not always the case, and it is quite possible for trainees to leave a training program without sufficient preparation to make action initiation in the work environment easy. When action planning is used, it typically requires people to break goals down into more specific sub-steps that provide better guidance for behaviors. However, as Gollwitzer (1999) points out, simply setting more specific or proximal goals does not capture the important situational connection involved in implementation goals. In addition, people completing action plans may be encouraged to think of concrete examples of opportunities they will have to apply their skills and relate their action plan goals to those situations. However, action planning interventions typically do not do this at the level of detail implied in implementation intentions research. For instance, trainees might identify an upcoming negotiation opportunity when they will be able to apply their negotiation skills, but then set goals for that situation without specifically emphasizing the situational cues that should prompt each negotiation strategy they intend to use. Training transfer could benefit if research on implementation intentions were more firmly embedded in transfer interventions.

The intervention proposed in this study explicitly tries to enhance implementation intentions, or the intention to enact a particular behavior in a particular anticipated circumstance, by having people set implementation goals to support their transfer goals. The intervention focuses people on connecting the behavioral strategies they learned in training to particular situations in which they will have the best opportunities to use those

strategies. The act of forming and recording goals linking the behaviors and situations is expected to increase the extent to which people hold specific goals to use particular strategies in particular negotiation circumstances rather than being committed only to more vague goals for using the negotiation skills. People who do not receive the experimental intervention are not expected to form implementation intentions to the same degree, although some people may be inclined to form implementation intentions for their goals without being prompted (Gollwitzer, 1999).

Hypothesis 9. People who participate in the experimental transfer motivation intervention, which incorporates connecting behavioral strategies to particular situations, will report stronger implementation intentions than those who participate in a typical action planning intervention or receive training without a transfer intervention.

Mediating Relationships

The model proposed in this investigation is a process model of transfer motivation and predicts several mediating relationships. Although several levels of mediation are implied by the model, two are of primary interest in this investigation and will be tested. First, the target motivational constructs are expected to explain the impact of the experimental transfer intervention on transfer behavior (irrespective of whether the proposed mediating motivational mechanisms explain this process). Second, because they are more proximal to transfer behavior, the mediating motivational mechanisms are expected to explain the impact of the target motivational constructs on transfer behavior. These two sets of mediating relationships are critical to understanding how the motivational theories that have been applied to training transfer in this investigation have

the expected and intended effects on transfer behavior and how the theories might be applied more effectively to improving transfer. Thus, hypotheses about these mediating relationships will be examined in this investigation.

Explaining the Impact of the Transfer Motivation Intervention on Transfer Behavior

The transfer motivation intervention proposed in this investigation has been specifically designed to impact three target motivational constructs (perceived personal relevance, self-regulatory focus, and implementation intentions). These target constructs are expected to explain how the intervention impacts transfer behavior. Analyzing whether or not these mediating relationships are supported will add clarity to the results of this investigation by indicating whether, in fact, the intervention “works” by effectively increasing transfer attempts, as well as whether the theorized motivational constructs are responsible for these effects or whether additional processes may be implicated in explaining the wheels set in motion by the intervention exercises.

Hypothesis 10a. The experimental transfer motivation intervention will increase the frequency and variety of transfer attempts through perceived personal relevance.

Hypothesis 10b. The experimental transfer motivation intervention will increase the frequency and variety of transfer attempts through self-regulatory focus.

Hypothesis 10c. The experimental transfer motivation intervention will increase the frequency and variety of transfer attempts through implementation intentions.

Explaining the Impact of the Target Motivational Constructs on Transfer Behavior

The experimental transfer motivation intervention is specifically designed to impact particular motivational constructs. In turn, each of the three target motivational constructs (perceived personal relevance, self-regulatory focus, and implementation intentions) is expected to influence transfer behavior through a mediating motivational mechanism that is more proximal to the behavior (competence valuation, goal variety, and situational cueing, respectively). These mediators are expected to contribute to an explanation of how the target motivational constructs impact transfer behavior. Support for these hypotheses will indicate support for the theoretical foundations underlying this investigation, provide a clearer understanding of why it is possible to influence transfer behavior through the target constructs, and suggest further opportunities for increasing the use of trained skills.

Hypothesis 11a. Perceived personal relevance will be positively related to the frequency and variety of transfer attempts through competence valuation.

Hypothesis 11b. Approach self-regulatory focus will be positively related to the frequency and variety of transfer attempts through goal variety.

Hypothesis 11c. Implementation intentions will be positively related to the frequency and variety of transfer attempts through situational cueing.

METHOD

Overview

By definition, transfer of training involves people taking advantage of opportunities to apply trained knowledge, skills, abilities, and attitudes in their work. When opportunities are readily available, people must be motivated to respond by attempting to use their new skills. When opportunities are not as clearly available or presented, people must be motivated to create their own opportunities to practice and use their new skills. The transfer motivation that leads people to create and take advantage of opportunities to use training in their work is a major and essential step toward successful transfer of training. All three aspects of motivation—intensity, direction, and persistence—must be brought to bear on transfer to maximize the likelihood that people will attempt to transfer what they have learned in training to their work and will be successful in their attempts.

The model of transfer motivation in this investigation suggests that an intervention designed to impact transfer motivation will improve the extent to which people attempt to apply what they have learned in training. Increased frequency and variety of transfer behavior are expected to improve transfer performance quality. This investigation tested the effectiveness of the transfer motivation model and intervention. Participants in the investigation completed a training course in issue-based negotiation, received the experimental transfer motivation intervention or one of two comparison interventions, had a brief opportunity to use the negotiation skills outside of the lab in their own lives, and then attended a negotiation transfer simulation.

Design

This study was conducted with a one-factor design. The design included one group receiving the experimental transfer motivation intervention, a control group receiving a standard transfer intervention (action planning), and a control group receiving no transfer intervention. All groups received identical negotiation training (described later in this section).

Control groups. The two control groups represent common occurrences in actual training interventions in organizations. In the first control group, participants received only the negotiation training, with no explicit attention to transfer motivation or planning. In the second control group, participants followed a prototypical action planning process at the conclusion of their negotiation training session. This process was modeled after the types of action planning that are commonly used in well-designed organizational training programs (Broad & Newstrom, 1992; Eittington, 1996; Silberman, 1995). It included standard minimal guidance focused on setting challenging, specific goals, articulating strategies to accomplish those goals, listing resources needed to accomplish the goals, establishing deadlines for goal accomplishment, and identifying data that will indicate goal accomplishment. No explicit attention was given to the motivational constructs and processes incorporated purposefully into the experimental intervention.

Experimental group. The experimental group received a transfer intervention based on the transfer motivation model proposed in this study. In this intervention, participants completed several activities designed to enhance their transfer motivation. The intervention included: (1) an exercise designed to help people form connections between the negotiation training and their personal higher-order goals to heighten their

sense that the training is personally relevant and increase the extent to which they value building competence in negotiation, (2) a modified version of action planning that guided people to set approach goals and bound avoid goals with approach goals to shape their self-regulatory focus and increase the variety of goals they would set as initial transfer targets, and (3) a guided exercise that focused on making connections between the behavioral skills and particular situations in which they could best be used to prompt formation of implementation intentions and situational cueing of the trained skills during transfer opportunities. This intervention is described in detail in the procedure section.

Power Analysis & Participants

Previous research did not suggest likely effect sizes for the transfer motivation intervention being tested in this study. Power analysis for the experimental design described above indicated that to achieve 80% power with $\alpha = .05$, an overall sample size of 63 participants would be required to find large effects ($d = .8$), 156 participants to find medium effects ($d = .5$), and 966 participants to find small effects ($d = .2$) (see Appendix A; Cohen, 1992). Data collection was therefore targeted to obtain data for at least 52 participants in each of the three conditions. 204 undergraduates at a large midwestern university participated and received credit in partial fulfillment of course requirements. Participants were predominantly female (71%), and 88% were 23 years old or younger. Demographic items are included in Appendix J. Chi-square analyses indicated that there were no significant differences in participant gender or age across the three experimental conditions, $\chi^2(2, N = 186) = 1.77, n.s.$; $\chi^2(6, N = 186) = 6.54, n.s.$

Procedure and Intervention

The experiment was divided into two parts, with approximately a one-week gap between parts. For the first part, participants attended one of several group sessions led by an experimenter/trainer. The format for these sessions was: (1) welcome, informed consent, and introduction, (2) pretraining motivation measure, (3) negotiation training and practice, (4) post-training learning and self-efficacy measures, (5) transfer intervention (none, standard action planning, or the experimental intervention), and (6) pre-transfer motivational measures. Each group session presented only one experimental or control condition to all participants. Participants selected their group session blindly, with no information about the transfer intervention they would receive. Random assignment was used to determine which condition would be used in each scheduled group session. Thus, there should not have been any systematic variation between participants in experimental and control groups. The introduction was slightly modified to appropriately reflect the content of each experimental condition. The control condition that did not include a transfer intervention skipped Step 5. All other aspects of the group sessions were identical across conditions.

Before leaving the group session, participants scheduled a time to return for an individual session approximately one week after their group session. The one-week gap was included to supplement the laboratory transfer measures with an opportunity to collect measures of real-life transfer of the negotiation skills. Although one week is a short period of time and may not offer many opportunities for participants to use the skills they learned in training (Ford, Quiñones, Sego, & Sorra, 1992), Fisher and Ury (1991) argue that negotiation is a daily part of life. Thus, it was expected that most

participants would have some opportunities to use the negotiation skills during this week if they chose to do so, and that a one-week period would be adequate to supplement the measures of maximal transfer gathered in the laboratory with measures of typical transfer (Ackerman & Heggstad, 1997; Goff & Ackerman, 1992; Willerman, Turner, & Peterson, 1976).

For the second part of the experiment, participants returned to the laboratory for individual sessions led by an experimenter. The format for these sessions was: (1) pre-simulation measures, (2) transfer simulation, (3) post-transfer measures, and (4) debriefing and dismissal. The format for the individual sessions was identical for all participants. The experimental procedure and interventions are described in detail below; measures are described in the following section.

Welcome, Informed Consent, and Introduction

Upon arrival at the group session, each participant received a consent form to review and a sealed training and measures manual. Each participant was assigned a participant number to assure confidentiality of their responses. The experimenter welcomed participants and told them that the purpose of the experiment was to investigate how people respond to a training program and how well they are able to use what they learn in the training program. The experimenter then requested everyone's consent to participate and collected participants' signed forms (see Appendix B). Next, the experimenter gave participants an overview of what to expect during the session. The overview was tailored slightly to appropriately describe each experimental condition (see Appendix C).

Pre-Training Motivation Measure

Following the overview, participants completed a pre-training measure of motivation to learn negotiation. The experimental transfer intervention was expected to influence motivational states regardless of pre-training motivation to learn. In addition, random assignment of participants to experimental conditions should have resulted in a random, unbiased distribution of motivation to learn across conditions, allowing a sound test of the intervention's effectiveness in influencing transfer motivation. However, to check these assumptions, the motivation to learn measure was collected to be used as a control variable in the analyses.

Negotiation Training and Practice

When all participants had completed the pretraining measures, the experimenter/trainer began the negotiation training (see Appendix D). The training was identical for all experimental conditions. The training was based on materials reconstructed by Daniel Weissbein (2000) from research reports by Gist and colleagues (Gist, Bavetta, & Stevens, 1990; Gist, Stevens, & Bavetta, 1991; Stevens & Gist, 1997). The training delivery included classroom instruction by the experimenter/trainer, modeling of the negotiation skills, group discussion, and skill practice. The training content included four sets of strategies based on principled bargaining and assertiveness. Following a brief introduction to the philosophy behind these strategies, the strategies were presented, modeled, discussed, and practiced. The training and practice portion of the experimental session lasted approximately 90 minutes.

Post-Training Learning and Motivation Measures

At the conclusion of the group training and practice session, participants completed a knowledge test assessing their negotiation knowledge and skill understanding, and a measure of negotiation self-efficacy. At this point, participants also received an overview of the upcoming negotiation simulation (see Appendix G).

Transfer Intervention

Next, the experimenter presented the transfer planning intervention for the appropriate experimental condition—either standard action planning or the experimental transfer motivation intervention. The control group not receiving a transfer intervention skipped this step and went directly to the next set of measures. To avoid contaminating effects resulting from extreme differences in the time participants spent digesting or applying the transfer planning techniques, the experimenter led and paced each session.

Standard action planning intervention. In the standard action planning control condition, the experimenter led participants through an action planning guide included in their manual (see Appendix E). As is typical in actual training sessions, the experimenter provided little guidance beyond what was included in the action planning form. Rather, the experimenter's role was to pace participants' progress through the action plan and emphasize key points. The action planning instructions focused on setting challenging, specific goals. Participants also articulated strategies to accomplish those goals, listed resources needed to accomplish the goals, established deadlines for goal accomplishment, and identified data that would indicate goal accomplishment. No explicit attention was given to the motivational constructs and processes targeted by the experimental transfer intervention. The action planning exercise took approximately 20 minutes.

Experimental transfer motivation intervention. In the experimental intervention condition, the experimenter briefly highlighted concepts included in the participants' manuals, and led participants through exercises where they applied those concepts (see Appendix F). The full intervention took approximately 20 minutes. The first element of the intervention focused on the importance of forming connections between the training and higher-order personal goals. The experimenter stressed that it was important for each participant to draw connections between the negotiation training skills they had learned and their personal goals. In the exercise, participants identified and briefly described qualities and values that were important to them and connected these to the negotiation skills, and then identified personal goals which they felt the negotiation skills they had learned might help them achieve.

The second element of the intervention included information about the importance of action planning and setting particular kinds of goals to enhance transfer and negotiation achievement. The experimenter highlighted the importance of keeping in mind the motivational direction of goals—what participants were trying to achieve and what they were trying to leave behind or stay away from. In addition, the intervention instructions highlighted the importance of focusing primarily on approach (pull) goals and bounding avoid (push) goals with approach goals to guide transfer efforts. Following these instructions, participants completed the goal setting portion of the action planning exercise in their manuals. The instructions called for participants to set approach goals and to recognize their avoid goals and bound them with approach goals.

The third and final element of the intervention focused on forming implementation goals that specifically connect behavioral skills to situational

opportunities for using them. The experimenter and instructions highlighted the importance of making specific connections between the goals set in Part 2 of the planning guide and situations that will provide the best opportunities for achieving each goal. Participants then completed an exercise in which they set implementation goals for each of the goals they had established in Part 2. For each goal, they were asked to form one implementation intention for a real negotiation they intended to have in the coming week, and one implementation intention for the negotiation simulation.

Pre-Transfer Motivational Measures

At the conclusion of the transfer planning intervention, participants completed the pre-transfer motivational measures included in their manuals. These measures included perceived personal relevance of the training, negotiation competence valuation, self-regulatory focus, implementation intentions, and goal variety. These measures assessed the motivational mechanisms through which the experimental transfer intervention was expected to impact transfer behavior. Situational cueing was not measured at this time because the participants had not yet been in transfer situations.

Short in Vivo Application Period

At this point, the first session of the experiment was concluded. Participants arranged a time to return for the negotiation simulation approximately one week following the training session. The experimenter encouraged people to use the week to prepare for their simulation by reviewing their skills and using them in real negotiations. Participants who had completed an action plan or the experimental transfer intervention received a copy of their plan. Participants also were permitted to take home the overview of the upcoming negotiation simulation, as well as a one-page review of the strategies.

Pre-Simulation Transfer Behavior Measures

When participants returned one week later for their negotiation transfer simulation, they began by completing a self-report measure of negotiation skill use. This measure captured their perceptions of the frequency and variety of transfer attempts they had made independently during the week following training.

Transfer Simulation

After completing the measure, participants met their negotiation opponent, a confederate of the experimenter/trainer who was blind to the hypotheses of the study and participants' experimental condition. The confederate negotiator began the negotiation according to a script (Appendix H). The negotiation simulation involved a salary negotiation in which the participant sought to obtain a high salary offer from their opponent, who was in the role of an employer. Confederate negotiators were trained to negotiate according to a standard procedure of responses to participant negotiation attempts. They learned to identify the negotiation strategies used by the participants and to respond accordingly in the negotiation. At fixed salary levels, the confederates used aggressive verbal and nonverbal negotiation tactics to provide participants an opportunity to use their assertive negotiation strategies. The negotiation continued until the participant agreed to a salary offer made by the confederate or until a maximum salary level was reached (none of the participants achieved the maximum salary). During the negotiation simulation, the confederate recorded all negotiation strategies attempted by the participant.

Post-Transfer Measures

Following the transfer simulation, participants completed the final set of measures. Participants responded to a measure of goal variety that asked them to retrospectively report the content of their goals for the negotiation simulation. Next, they completed the situational cueing scale, which assessed the extent to which situations that had occurred during their real-life negotiations or during the negotiation simulation had cued specific negotiation strategies. In addition, participants were asked to indicate their perceptions of the extent to which they had accomplished their transfer goals. Finally, participants completed demographic items.

Debriefing and Dismissal

When participants had completed all measures, they received a general description of the purpose of the study and what I hoped to learn from the data they had contributed (see Appendix I). They received credit for their participation, and were thanked and dismissed by the confederate.

Measures

As noted above, participants were asked to respond to self-report measures at five different points during the experiment. Prior to training, participants completed a measure of motivation to learn. Between the training session and transfer planning intervention, participants completed measures of learning and self-efficacy. Immediately following the transfer planning intervention, participants completed the key motivational construct measures. A week later, when they returned for the negotiation simulation, participants reported on the transfer behavior attempts they had made independently during the week. Finally, after the negotiation simulation, participants responded to a

measure of situational cueing and reported on their transfer experience and their demographic characteristics. In addition to these self-report measures, participants' exercises in the transfer planning conditions and behaviors during the negotiation simulation were assessed. The measures are described below. Instructions given to participants and items are included in Appendix J.

Pilot Testing

Validated measures of the central motivational constructs included in this research are not currently available. Thus, I had to create measures based on the theoretical research reviewed in the introduction. Concerns about the quality of these measures, and especially the degree of overlap among items intended to measure theoretically distinct constructs, necessitated pilot testing of the measurement items. This section describes the pilot testing procedure; detailed results for each measurement scale are reported as part of the general description of each scale following this section.

Materials summarizing the pilot procedure and results are included in Appendix K. The pilot test procedure included several steps. First, I reviewed the entire set of scales proposed for the investigation for potential item overlap. Based on analysis of item content and administration proximity, I identified five scales as potentially problematic and requiring pilot testing. I judged the remaining scales to be sufficiently independent to be used without pilot testing, either because their item content was identifiably unique from the other scales, or because they would be administered a week apart from other similar scales.

Second, I randomly sorted the originally-proposed items for the five troublesome scales and distributed them to eighteen raters familiar with common psychological

constructs and their measurement. Raters received a brief definition of each of the five constructs, and instructions to assign each of the 59 original items to the appropriate construct or constructs. Because my intent was to identify potential problems with construct measurement overlap, the instructions specifically directed raters to assign an item to multiple constructs if they could not make a clean determination regarding which construct the item represented. Fourteen raters provided construct assignments for the items and comments regarding measurement quality.

Based on the construct assignment responses and item content, I made one of the following choices for each item: include the item as written on its original scale, revise the item and include it on its original scale, include the item as written on a different scale than originally intended, or discard the item. Several decision criteria guided the choice for each item. For scales used in prior research, all but 2 of the 20 items achieved 86% of their construct assignments on the intended construct. The remaining two items achieved at least 64% intended assignments, with no more than 21% assignment to a single alternate construct. All items on these scales were left intact. For the 39 items developed for this investigation, decision criteria included: the number of intended-construct versus unintended-construct assignments, item content, retention of a minimum of six items per construct to allow empirical measurement scale revisions, and ability to reword the item to better distinguish it from unintended assigned constructs. Approximately 60% of the items created for this investigation were reworded and retained on their originally-intended scale based on these criteria. Of the remaining 40%, eight items were retained exactly as written representing their intended construct, five items were discarded

completely, and two items that were consistently assigned by raters to an unintended construct and had appropriate content were switched to the identified construct.

The third step in the measurement pilot test involved redistributing the revised items to the raters. For this step, the items were grouped in their intended scales to reflect the way participants in the investigation would encounter them, and construct definitions were repeated. Raters were instructed to identify any items that did not appear to reflect the intended construct or that still appeared to reflect multiple constructs. All nine raters who responded perceived the items to be adequately connected within scales and distinct across scales.

Pre-Training Motivation Measure

Participants completed a measure of motivation to learn before participating in the training workshop. Responses to each item were given on a 5-point likert scale (1 = “Strongly Disagree,” 3 = “Neutral,” 5 = “Strongly Agree”).

Motivation to learn negotiation. Motivation to learn has been found to play an important role in training success, influencing knowledge acquisition and reactions to training, and also impacting transfer through skill acquisition and posttraining self-efficacy (Colquitt, LePine, & Noe, 2000). Previous studies have had difficulty supporting motivational constructs related to training and transfer (Noe & Schmitt, 1986) or distinguishing transfer motivation from motivation to learn (Noe & Wilk, 1993), even to the extent that they have combined the two components into one construct representing motivation to improve work through learning (MTIWL; Baldwin, Ford, & Naquin, 2000). Thus, although the focus of this study is on influencing motivation to transfer rather than untangling the conceptual relationship between these constructs, motivation to learn will

be assessed to determine whether the transfer intervention affects transfer behavior beyond the influence of participants' motivation to learn negotiation, which is also expected to be related to transfer based on previous research. As noted earlier, random assignment of participants to the experimental conditions is expected to minimize the potential impact of individual differences in motivation to learn negotiation; however, this assumption will be checked with this measure.

The intervention presented in this investigation is specifically targeted at raising motivation to use skills after training, rather than to learn them during training. Thus, it is expected to have an impact that is more proximal to transfer behavior. In addition, because the intervention occurs after training, once participants are familiar with the specific skills presented in the training, it more specifically focuses people on using these particular skills, in contrast to the more general assessment of pretraining motivation to learn negotiation skills. Participants responded to eleven items adapted from Weissbein's (2000) pretraining motivation to learn scale. The revised scale included five items capturing desire to learn about negotiation and six items capturing willingness to invest effort to learn about negotiation. Weissbein adapted the desire to learn dimension from Noe's (1985) motivation to learn scale, and created the willingness to invest effort items. Weissbein's scale, which also included confidence items that were not included in this investigation, was unidimensional and had acceptable reliability. A sample desire to learn item is "I want to improve my negotiation skills." A sample item designed to capture willingness to invest effort is "I am going to really try and learn the negotiation strategies and how to use them."

Post-Training Learning and Motivation Measures

Following training, participants completed a learning test and a measure of self-efficacy.

Learning. A test of procedural and conditional knowledge recall was given following the training. Participants completed a 10-item sentence completion quiz adapted from Gist, Bavetta, and Stevens (1990) by Weissbein (2000). I further modified the test to require behavioral descriptions of the negotiation strategies rather than simply strategy names, because knowing the list of strategy names does not imply that people would know how to use the strategy successfully in a negotiation. No memory aids were provided to assist with recall. Because it is difficult to argue that only one strategy is appropriate in each situation described on the quiz, responses were scored without regard to the item prompt. That is, participants were given credit for adequately describing the negotiation strategies even if they did not describe the strategy that was the intended response for each quiz item. Participants were awarded full credit, partial credit, or no credit for each strategy they described, for a maximum of 20 points. The scoring schema for the learning measure is included in Appendix J.

Self-efficacy. Post-training self-efficacy has been significantly related to transfer across a number of studies (Colquitt, LePine, & Noe, 2000). Because of its known contribution for explaining transfer motivation, and because the differential impact of the experimental conditions on self-efficacy was unknown, self-efficacy was included as a control variable in tests of the motivational mechanisms hypothesized to influence transfer behavior in this investigation. Participants completed a 9-item measure of self-efficacy adapted from Pintrich and DeGroot (1990). A sample item is, “My negotiation

skills are excellent compared with others in this training workshop.” Responses to each item were given on a 5-point likert scale (1 = “Strongly Disagree,” 3 = “Neutral,” 5 = “Strongly Agree”).

Pre-Transfer Motivational Measures

The following measures were completed immediately after the transfer planning intervention, before participants left the negotiation training workshop. Responses to each item were given on a 5-point likert scale (1 = “Strongly Disagree,” 3 = “Neutral,” 5 = “Strongly Agree”).

Perceived personal relevance. A 6-item measure of perceived personal relevance was developed for this investigation. A sample item is, “I can already think of ways that I could use the negotiation skills I learned today.”

Negotiation competence valuation. Previous studies examining competence valuation have used single-item measures (e.g., Harackiewicz & Elliot, 1993) or two-item measures (e.g., Elliot & McGregor, 2001). For this study, I developed additional items to form an 11-item measure designed to capture competence valuation. Good reliability and predictive utility for the two-item measure (Elliot, Faler, McGregor, Campbell, Sedikides, & Harackiewicz, 2000) bode well for the psychometric properties of a more extensive measure of this construct. A sample item is “I really value negotiation as something I want to be good at.”

Self-regulatory focus. Self-regulatory focus was measured with a 22-item measure. Fifteen of the items were adapted from a 3-factor measure of goal orientation recently developed and validated by Horvath, Scheu, and DeShon (2001). As discussed earlier, mastery and performance goal orientation describe the standard used to define

competence. Mastery goals focus on reaching standards related to task competence; performance goals focus on demonstrating normative competence. Though there is still debate about how mastery and performance relate to approach and avoid, there seems to be consensus that they are both important aspects of goal striving. The 15-item goal orientation measure includes five items capturing mastery-approach orientation (e.g., “I will enjoy the challenge and difficulty of using my new negotiation skills.”), five items capturing performance-approach orientation (e.g., “I want others to recognize that I am one of the best negotiators.”), and five items capturing performance-avoid orientation (e.g., “I don’t want others to see that others are better than me at negotiation”).

Theory and research on goal orientation remain equivocal about the viability of a four-factor measure including mastery-avoid orientation. Currently, none of the trait measures of goal orientation include this subfactor. However, because avoid motivation is central to this study, I supplemented the Horvath et al. scale with adaptations of the three mastery-avoid items developed by Elliot and McGregor (2001). A sample item is “Sometimes I’m afraid that I may not understand things that I am learning as thoroughly as I’d like.” Finally, because the goal orientation measures do not reflect the strategic goal striving underpinnings highlighted by Higgins (1997), I wrote two additional items reflecting the attempts to strategically match or mismatch approach and avoid goals (see Table 1). A sample approach item is, “To achieve my negotiation goals, I will need to make sure I don’t miss opportunities to use these skills.”

Implementation intentions. Implementation intentions describe the strength of a person’s commitment to engaging in particular behaviors when they encounter particular situations. In this investigation, participants in the experimental group were induced to

set implementation goals following the training workshop. Participants in the action planning control condition were induced to set goals, but without any particular instructions to connect behaviors to particular situations. Participants in the control condition with no transfer intervention did not set any goals. The strength of implementation intentions was assessed with six items asking people about the detail level of their plans for using the negotiation skills during the coming week and when they returned for the negotiation simulation, and their intentions to follow their plans. A sample item is, “For my negotiation simulation, I have planned when I will use each strategy I intend to use.”

Goal variety. To report their transfer goal variety, participants responded to the questions, “How likely is it that you will use each of the following strategies during the coming week?” and “How likely is it that you will use each of the following strategies during your negotiation simulation?” They rated the likelihood that they would use each strategy on a 5-point likert scale (1 = “Very Unlikely,” 3 = “Somewhat Likely,” 5 = “Very Likely”). The number of strategies they rated as 3 or higher was summed to represent goal variety. Thus, the maximum variety score was eleven strategies for each transfer setting (simulation and personal life).

Pre-Simulation Transfer Behavior Measures

When participants returned a week after the negotiation training workshop for the negotiation simulation, they responded to a measure of independent transfer behavior prior to participating in the negotiation simulation.

Independent negotiation skill use. First, participants reported the number of times they had engaged in a negotiation during the week since their negotiation training

workshop. They were asked to indicate whether they had participated in zero, one, two, three, or more than three negotiations. Then, participants reported the number of times they had used each of the negotiation strategies presented in the training workshop, using the same scale from “zero” to “more than three.” The experimenter then tallied for each participant: the mean number of attempts to use each negotiation strategy across all negotiation incidents (frequency), and how many of the 11 negotiation strategies were attempted in any of the negotiations at least once (variety).

Independent negotiation skill effectiveness. In addition, participants provided a self-report assessment of how well they believed they had used their negotiation skills overall. Participants responded to five items regarding the effectiveness of their skill attempts. A sample item is, “Overall, I think I used the negotiation strategies effectively.” Responses to each item were given on a 5-point likert scale (1 = “Strongly Disagree,” 3 = “Neutral,” 5 = “Strongly Agree”).

Transfer Simulation Measures

Transfer behavior (attempts). During the negotiation, the confederate negotiator recorded each attempt the participant made to use one of the negotiation strategies. The experimenter then tallied for each participant: the total number of attempts to use the negotiation strategies during the simulation (frequency) and how many of the 11 negotiation strategies were attempted at least once during the simulation (variety).

Transfer performance. Transfer performance was assessed based on the final salary level reached in the negotiation. To distinguish transfer performance from transfer behavior, the scoring scheme used by Weissbein (2000) was altered to replace the focus on performance quantity with a focus on performance quality. For each negotiation

strategy, a dichotomous quality rubric was developed to provide guidelines for quality judgments. Confederate negotiators learned the performance criteria for each strategy. When participants exhibited that strategy, confederates assessed whether or not the quality criteria had been reached. If they had, the strategy was noted as an effective attempt, and participants were rewarded with a \$1000 increase in salary offered by the confederate. If the participant had failed to meet the performance quality criteria for the strategy, the confederate recorded the attempt as unsuccessful, and did not change their salary offer to the participant. In addition, bonus points were added when participants effectively achieved gains in a non-salary area of negotiation (e.g., moving expenses). Thus, the negotiation performance score rewarded good skill performance. The transfer behavior and transfer performance scores were highly correlated, but not completely intertwined. An increase in transfer performance was by definition coupled with an increase in transfer attempts. However, an increase in transfer attempts did not automatically imply an increase in transfer performance. It was possible for a person to make many transfer attempts and never achieve the quality criteria, thereby receiving a transfer performance score of zero. Participants were not given any information about the negotiation scoring scheme.

Post-Transfer Measures

The final set of measures included a retrospective measure of one of the motivational mechanisms in the model; self-report data concerning transfer goal accomplishment; reactions to the utility of transfer planning goals; and demographic characteristics.

Situational cueing. Situational cueing was measured with six retrospective items developed for this investigation. All of the items tapped the extent to which people had been prompted by the negotiation simulation or other negotiation situations to think of particular negotiation strategies and had a sense that the strategies were easy to recall while negotiating. Three of the items mentioned difficulty thinking of particular negotiation strategies during a negotiation and were reverse-coded. Items referred to both the opportunities the person may have had to negotiate during the week following the training and preceding the negotiation simulation, as well as to the negotiation simulation. A sample item is, “As soon as the first opportunity came up in the negotiation simulation, I knew which strategy I wanted to use.” Responses to each item were given on a 5-point likert scale (1 = “Strongly Disagree,” 3 = “Neutral,” 5 = “Strongly Agree”).

Perceptions of transfer goal accomplishment. To supplement data collected to test the main hypotheses, participants selected one of four options written for this investigation to indicate the extent to which they felt they had accomplished their goals concerning attempts to use the negotiation strategies during the simulation. This item was included to tap peoples’ thoughts regarding how effective the intervention was in helping them achieve their goals.

Demographics. Finally, participants were asked to report their gender, age, and year in college.

RESULTS

This study used a one-way design with three levels representing the three transfer intervention groups (no transfer intervention, prototypical action planning, experimental transfer motivation intervention). Analysis of variance and hierarchical regression were used to test the hypotheses comparing the motivational effects of the experimental transfer motivation intervention to the two control groups and to evaluate the relationship of the key motivational constructs with transfer behavior and transfer performance.

Data Quality

Prior to data analysis, the quality of the questionnaire and observation data were evaluated. This evaluation included examination of missing and unusable data, factor analyses of scale structure, and measurement reliability analyses.

Missing Data

Of the 204 participants who began the experiment, 15 participants could not be included in the analyses. Eight participants failed to attend the negotiation simulation session (four from the training-only control condition, three from the action planning condition, and one from the experimental motivation planning condition). Five participants could not complete the negotiation simulation within the allotted two-week time frame. Two participants from the standard action planning condition failed to follow the simulation instructions by refusing to accept a salary offer. All data from these 15 participants was deleted from the analyses. Of the 189 participants included in the analyses, 10% omitted at least one item in their questionnaire responses. Only 3% omitted an entire scale, and only one participant did not respond to a key independent

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Factor Analyses

Principal factors extraction with promax (oblique) rotation was performed to determine whether the data supported the intended scale structure. Oblique rotations were used to provide the best simple structure among motivational factors that were expected to be correlated, reducing cross-loadings. Appendix L reports the rotated factor pattern matrices. Principal components analyses and varimax (orthogonal) rotations were also examined to test the consistency of support for the factor structure; for simplicity, these results are not reported because they extracted the same factors. Separate factor analyses tested the independence of the motivational variables along each path through the model. Additional factor analyses tested the independence of the target motivational constructs and of the mediating motivational mechanisms, and the distinction of each set from motivation to learn and self-efficacy. Criteria for factor extraction were a combination of: eigenvalues greater than 1.0 (Guttman, 1954; Kaiser, 1960, 1970), large relative change in the eigenvalues according to the scree plot, and interpretability of factors.

Factor Analyses along Motivational Paths

Perceived Personal Relevance and Competence Valuation

The first factor analysis examined the observed structure of the items intended to measure perceived personal relevance and competence valuation. Results from this factor analysis are reported in Appendix L, Table L1. Two factors were extracted (eigenvalue for third factor = 0.50), explaining 96% of the common variance and with a

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correlation of .60. All items loaded on their intended scale; cross-loadings were less than .32, indicating less than 10% overlapping variance. One item (question 24) on the perceived personal relevance scale had a factor loading less than .45, indicating less than 20% overlapping variance, and a communality of .18, indicating that the factors were not able to predict a substantial proportion of the variance in this item. Analysis of the inter-item correlations confirmed that this reverse-scored item, “Other people might need to know negotiation skills, but I don’t see how I could use them,” was not closely related to the other items in the scale. Thus, the item was dropped from the perceived personal relevance scale yielding a scale with an internal consistency reliability (α) of .84. All items on the competence valuation scale had factor loadings indicating 40% or greater overlapping variance and cross-loadings less than .32; this scale was analyzed as intended ($\alpha = .94$).

Self-Regulatory Focus and Goal Variety

The second factor analysis examined the observed structure of the items intended to measure self-regulatory focus and goal variety. Results from this factor analysis are reported in Appendix L, Table L2. According to the Kaiser criteria, seven factors were extracted. However, an examination of the scree plot and the factor content for the seventh factor (a single item), suggested that six factors would better represent the data (eigenvalue for the seventh factor was 1.02). The six factors explained 82% of the common variance. The observed factor structure was largely as theorized; however, some of the factor loadings and cross-loadings suggested revisions to the intended scales. There was little overlap between the self-regulatory focus and goal variety factors; all cross-loadings were less than .32 (less than 10% overlapping variance).

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The self-regulatory focus items formed three factors. Avoid self-regulatory focus was observed as one factor as intended. However, two of the items intended for this scale did not load above .32 on any factor. These were item 48, “During negotiations, I am not going to use skills that will show that others are better than me at negotiation” ($h^2 = .06$), and item 53, “To achieve my negotiation goals, I will need to avoid falling back on my typical reactions in conflict situations” ($h^2 = .21$). Inter-item correlations confirmed that these two items were not closely related to other items in the scale (average $r = .10$ and $.16$, respectively) so the items were dropped. Another avoid self-regulatory focus item (item 54) had just under 20% overlapping variance, but the communality was .32 and average $r = .28$, so the item was retained. The reliability (α) for the scale was .86. The approach self-regulatory focus items were unexpectedly split between those items based on mastery orientation and active attempts versus items with a performance orientation basis. For each factor, item loadings were greater than .45, indicating all items had at least 20% overlapping variance. Communalities were .32 or greater. Correlation between the two approach self-regulatory focus factors was .12. This scale was split into two subfactors for analysis: approach-mastery and approach-performance ($\alpha = .83$ and $.78$, respectively).

For goal variety, three factors were observed. As intended, two factors reflected distinctions between goals for the negotiation simulation and goals for negotiations in personal life. Unexpectedly, a third factor was formed from goals to use the three strategies presented during the training as “assertiveness strategies” in either the simulation or personal life setting. These items formed a clean scale with all factor loadings greater than .55 (30% overlapping variance) and cross-loadings less than .32.

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This scale had an internal consistency reliability (α) equal to .79. For the non-assertive strategies, separate factors for goals to use the strategies during the simulation and goals to use the strategies during the week were observed as expected. Factor loadings for the simulation goals all exceeded .45 and none of the cross-loadings exceeded .32. Thus, a scale was formed reflecting goals to use the non-assertive strategies during the simulation ($\alpha = .81$). For personal life goals, two items' loadings were less than .45 but communalities and cross-loadings were acceptable ($h^2 = .38$ and $.56$, cross-loadings $< .32$); inter-item correlations were also acceptable. A scale was created from these items to capture goals to use the non-assertive strategies in personal life ($\alpha = .67$). These three factors were used in all analyses concerning goal variety.

Implementation Intentions and Situational Cueing

The third factor analysis examined items intended to measure implementation intentions and situational cueing (see Appendix L, Table L3). Two factors explaining 90% of the common variance were extracted (eigenvalue for third factor = 0.69). The inter-factor correlation was $-.03$. Revisions to the intended scales were suggested by low factor loadings for several items, coupled with high cross-loadings for two items. For implementation intentions, one item (question 60) had a factor loading less than .45, indicating less than 20% overlapping variance, and a communality of $.14$, indicating that the factors were not able to predict a substantial proportion of variance in this item. However, the item cross-loading was $.05$ and analysis of the inter-item correlations indicated that the item, "When I get in a negotiation, I know that I will be very focused on using the strategies I learned today," was reasonably well-related to other items on the implementation intentions scale (average $r = .25$). In addition, removal of this item did

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For situational cueing, two items had problematic factor loadings. Item 17, “Certain things that happened in my life this week made me think of particular negotiation strategies I learned in the training,” had a factor loading less than .45 on the situational cueing factor coupled with a high cross-loading indicating nearly 10% overlapping variance with the implementation intentions factor. Item 19, “Certain things that happened during the negotiation simulation made me think of particular negotiation strategies I learned in the training,” had a similar pattern, with roughly equal overlapping variance on both factors (.33 for situational cueing and .29 for implementation intentions). To minimize overlap between the measures of implementation intentions and situational cueing, both items were removed from the situational cueing scale ($\alpha = .68$). The correlation between the resulting factors for implementation intentions and situational cueing was -.08.

Factor Analyses across Motivational Paths

Target Motivational Constructs

Factor analysis of the items intended to represent the target motivational constructs supported the distinction of these constructs from each other and from motivation to learn and self-efficacy. Results of this factor analysis are reported in Appendix L, Table L4. According to the Kaiser criteria, eight factors were extracted. However, an examination of the scree plot and factor content suggested that seven factors would better represent the data (eigenvalue for the eighth factor was 1.06). The seven factors explained 80% of the common variance. The observed factor structure supported

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the minor revisions to the intended scales suggested by the factor analyses along each motivational path. Both motivation to learn and self-efficacy formed factors unique from the target motivational constructs included in this study. For both of these factors, all items had at least 10% overlapping variance, and all cross-loadings were less than .32. On the personal relevance scale, all items had at least 20% overlapping variance, and none of the items had high cross-loadings. Self-regulatory focus formed three factors, supporting the factor analysis reported above for these scales. Avoid self-regulatory focus formed one factor with all factor loadings greater than .32 and only one item with a cross-loading greater than .32 (this item loaded -.34 on the self-efficacy factor). As in the prior factor analysis, items 48 and 53 did not load highly on the avoid self-regulatory focus factor, but instead with the approach-performance and personal relevance factors, respectively. These items were dropped from the final scale. Consistent with the prior factor analysis of these items, the intended approach self-regulatory focus scale split into two factors: approach-mastery and approach-performance. Each factor was supported by factor loadings greater than .32 and cross-loadings less than .32. Finally, the items designed to capture implementation intentions formed a factor with all items having at least 20% overlapping variance and cross-loadings indicating less than 10% overlapping variance with other factors. The only exception was item 60, which did not share more than 10% variance with any of the factors ($h^2 = .36$), and had a factor loading of only .19 on the implementation intentions factor. For the reasons described in the factor analysis examining implementation intentions and situational cueing, however, this item was retained as part of the scale.

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Mediating Motivational Mechanisms

Factor analysis of the items intended to represent the mediating motivational mechanisms supported the distinction of these constructs from each other and from motivation to learn and self-efficacy. Results of this factor analysis are reported in Appendix L, Table L5. Eight factors were extracted (eigenvalue for the ninth factor was .92). The eight factors explained 85% of the common variance. The factor structure supported the revisions to the intended scales suggested by the factor analyses along each motivational path. Both motivation to learn and self-efficacy formed factors unique from the target motivational constructs included in this study. For both of these factors, all items had at least 10% overlapping variance. However, three of the motivation to learn items had cross-loadings on other factors greater than .32, indicating about 10% overlapping variance of these items with the eighth factor, comprised of two of the situational cueing items. Based on item content, the motivation to learn items were assigned to their intended scale based on the support from this and the preceding factor analysis. None of the self-efficacy items had cross-loadings greater than .32. The competence valuation scale was strongly supported by the factor analysis. Item factor loadings all exceeded .71 (50% overlapping variance), with cross-loadings all less than .15. As in the prior analysis, the goal variety items formed three factors rather than the expected two. Factor loadings for the simulation goals all exceeded .52; cross-loadings were less than .32. For personal life goals, all factor loadings were greater than .32 and the largest cross-loading was .32. The third factor, capturing goals to use the assertive negotiation strategies either in the simulation or in personal life, was supported by factor loadings indicating at least 30% overlapping variance and cross-loadings indicating less

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than 10% overlapping variance with other factors. Finally, for situational cueing, the two items (17 and 19) recommended for removal in the factor analysis reported earlier loaded on a separate factor from the remainder of the situational cueing items, and shared less than 10% overlapping variance with the main situational cueing factor. Thus deletion of these items was further supported by this analysis. The main situational cueing factor included the remaining four items, which had factor loadings indicating at least 30% overlapping variance, with cross-loadings less than .13 except for relationships with the factor containing the eliminated items.

In conclusion, the factor analyses of the motivational constructs largely supported the intended factor structure. Motivation to learn and self-efficacy, the motivational constructs examined nearly exclusively in prior training transfer research, formed distinct factors from the motivational constructs introduced in this investigation. The proposed motivational constructs were also supported as distinguishable from each other and represented by the intended items in most cases. Exceptions were deletion of one item from the personal relevance scale, two items from the avoid self-regulatory focus scale, and two items from the situational cueing scale, treatment of the approach self-regulatory focus variable as two separate factors reflecting mastery and performance, and separation of the goals to use assertive strategies from the goal variety measures regarding other strategies in the simulation and in personal life.

Factor Analyses of Learning, Transfer Behavior, and Performance

The dependent variables in this investigation captured how well participants learned the negotiation strategies taught in the training workshop, the number of attempts to use the negotiation skills in personal life or during the simulation, the variety of

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Learning. Because the items measuring how well participants had learned the negotiation strategies were conceptually distinct from the measures of transfer behavior and performance, these items were factor analyzed separately. The principal factors analysis extracted a single factor for these items (eigenvalue for the second factor was .29). Factor loadings ranged from .20 to .54, indicating a maximum of 30% overlapping variance. Reliability for the learning measure was fairly weak ($\alpha = .55$); correlations among credit earned for descriptions of the various strategies were generally low. Although a stronger measure of learning would have been desirable, this measure was retained as the best indicator available of the participants' level of learning following the training workshop.

Personal life transfer behavior and performance. The self-report items measuring transfer behavior and performance were evaluated to determine their independence. Principal axis analysis with promax rotation extracted two factors explaining 90% of the common variance (eigenvalue for the third factor was .89). The first factor represented self-ratings of strategy use in negotiations during the week. Factor loadings ranged from .50 to .76, with cross-loadings all less than .22. The second factor represented self-ratings of negotiation effectiveness in personal life. Item 16 had a factor loading of .28, indicating less than 10% overlapping variance. This item, "When I tried to use the negotiation strategies, I discovered that I need more practice to be able to do them well," did not correlate highly with the other items on the scale, so it was dropped, resulting in a

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reliability (α) of .79. Remaining items had factor loadings between .58 and .84, with cross-loadings less than .10.

Lab simulation transfer behavior and performance. The raters in the negotiation simulation recorded the number and success of participants' attempts to use each of the distinct negotiation strategies. Participants' attempts to use the strategies were not expected to be highly correlated, but rather it was expected that people would focus on some of the strategies more than other strategies. Thus, unidimensional factor structure was not expected for the transfer behavior ratings, and factor structure for this measure was not evaluated. In addition, because the transfer performance measure was a single rating derived from the transfer behavior ratings made by experimenters during the negotiation simulation, it was not expected to be independent from the transfer behavior ratings. Rather, the salary variable represented an attempt to disentangle the quality of transfer performance from the quantity of transfer behavior attempts. Because transfer behavior and performance measures from the negotiation simulation were closely tied and evaluated by the same rater, they were expected to be highly correlated. Thus, no factor analyses were performed to try to distinguish these measures.

Rater Effects

Participants from the three experimental conditions were assigned equally to the three experimenters who performed the negotiation simulations and rated participants' attempts to use the negotiation strategies, $\chi^2(4, N = 189) = 7.20, p = .13$. Controlling for motivation to learn and learning, there were no significant effects of experimenter on transfer performance (salary), $F(4, 184) = 3.74, p = .14$. When participant gender was taken into account, experimenter did not significantly impact ratings of the number of

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transfer attempts made, $F(3, 182) = 3.61, p = .05$. When self-efficacy was considered, experimenter did not significantly impact ratings of the variety of negotiation strategies attempted $F(3, 185) = 3.92, p = .07$.

Descriptive Statistics

Table 5 presents overall means for all variables included in the investigation, as well as means within each of the three experimental conditions. It also includes correlations between the variables and gender and age. Table 6 presents correlations among the motivation and outcome variables in this investigation.

Demographic characteristics. As noted in Table 5, gender was significantly correlated with four of the motivational constructs and with one measure of transfer behavior. Male participants reported greater self-efficacy than females ($r = -.20$), experienced stronger situational cueing of the strategies ($r = -.16$), and made more attempts to use the strategies during the simulation ($r = -.16$). Female participants perceived the training as more personally relevant than males ($r = .17$) and had stronger avoid self-regulatory focus ($r = .15$). Gender was included as a covariate in analyses focusing on self-efficacy, personal relevance, avoid self-regulatory focus, situational cueing, and number of attempts to use strategies during the simulation. Age was not significantly correlated with any of the variables in this investigation.

Condition means. Examination of the condition means suggests that there is little difference among the three experimental conditions in transfer behavior and performance, and that the small differences are opposite the expected direction. This pattern is generally repeated for the motivational variables as well, with participants in the training-only control condition tending to show the most favorable levels of motivation. For

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several key variables, analysis of variance (ANOVA) was performed to test whether these differences were statistically meaningful. Although means for learning and self-efficacy following the training were slightly higher in the training-only control condition than in the action or motivation planning conditions, these differences were not statistically significant. Learning was equivalent across the three conditions, $F(2,186) = 0.68, p = .51$. ANOVA supported the assumption that random assignment of participants to experimental conditions and presentation of identical training would result in a similar average level of post-training negotiation self-efficacy within each of the three conditions, $F(2,186) = 2.84, p = .06$. Motivation to learn means were identical across the three conditions, $F(2,186) = 0.06, p = .94$. This provides evidence that random assignment of participants to the experimental conditions resulted in unbiased distribution of motivation to learn across the three conditions.

Motivation to learn. As shown in Table 6, motivation to learn was significantly positively correlated with many of the motivational constructs introduced in this investigation, but was not identical to these constructs (significant correlations ranged from .17 to .48). Motivation to learn was not significantly related to approach-performance self-regulatory focus, avoid self-regulatory focus, or goal variety for the assertive negotiation strategies. This pattern of correlations suggests a distinction between motivation to learn and motivational constructs involving social impressions. Motivation to learn also was not significantly correlated with situational cueing, nor with the measures of strategy use during the simulation or in personal negotiations. The only transfer behavior measure that was significantly related to motivation to learn was the participants' report of the number of negotiations they had between training and the

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simulation. This pattern suggests that motivation to learn was connected to opportunities to use the strategies, but that motivation to learn was not connected to specific attempts to use the strategies in opportunities arising following the training. Finally, motivation to learn was significantly correlated with transfer performance in both the simulation and personal life settings.

Self-efficacy. Self-efficacy was significantly related to all of the motivational variables introduced in this investigation ($.21 \leq r \leq .42$; correlation with avoid self-regulatory focus was negative, all others were positive). Self-efficacy also was significantly positively related to all but one of the measures of transfer behavior; the correlation with number of attempts to use the strategies during the simulation was positive but non-significant. With respect to transfer performance, self-efficacy was positively related to self-ratings of strategy use in personal life, but was unrelated to experimenter ratings of strategy use during the simulation. This pattern of correlations, combined with the fact that self-efficacy was unrelated to performance on the learning measure, suggests that participants' ratings of their own abilities and success may have been somewhat upwardly biased compared to ratings by a trained observer.

Based on the descriptive statistics, it was expected that little evidence would be found to support the hypothesized effectiveness of the transfer motivation intervention, but that the motivational constructs introduced in this investigation might contribute to a richer understanding of transfer behavior and performance.

Hypothesis Tests

For all statistical tests, $\alpha = .05$ was used as the criterion for judging statistical significance. Appendix M provides a summary of the analysis plan, including a list of

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hypotheses and descriptions of the hierarchical regressions or analyses of covariance used to test them. Figure 3 presents a heuristic summary of the key findings, showing the significant connections between transfer motivation, transfer behavior, and transfer performance in the laboratory and personal life settings. Results for each hypothesis are detailed below.

Effects of Transfer Behavior on Transfer Performance

Hypothesis 1a predicted that transfer behavior would be positively related to transfer performance, and Hypothesis 1b predicted that learning would moderate this relationship. Hierarchical regression was used to test these hypotheses separately for the impact on transfer performance in the simulation and in negotiations in participants' personal lives. Both the frequency of negotiation strategy attempts and the variety of strategies attempted were examined. Relevant control variables were entered in the first step of each regression (motivation to learn for both settings, plus self-efficacy for the personal life ratings of transfer performance), followed by the hypothesized independent variables in Step 2 and the interaction term in Step 3. Tables 7-10 present results for the regressions. Hypothesis 1a, linking transfer behavior with transfer performance, received support in both the laboratory simulation, where the experimenters rated transfer behavior and performance ($\Delta R^2 = .56$ for strategy attempts; $\Delta R^2 = .49$ for strategy variety), and in personal life, where participants self-assessed their transfer behavior and performance ($\Delta R^2 = .04$ for strategy attempts; $\Delta R^2 = .02$ for strategy variety). Hypothesis 1b received no support; learning did not impact the relationship between transfer behavior and performance, nor did it have a direct effect on transfer performance outcomes.

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Effects of Transfer Motivation on Transfer Behavior

Effects of the Mediating Motivational Mechanisms on Transfer Behavior

Hypothesis 2 predicted that self-efficacy would be positively related to transfer behavior. Results from the hierarchical regressions testing this hypothesis for the experiment simulation and negotiations in participants' lives are presented in Tables 11-14. The hypothesis received mixed support. In the laboratory simulation, self-efficacy was positively related to the variety of negotiation strategies attempted ($\Delta R^2 = .03$) but not the number of strategies attempted. In negotiations in personal life, self-efficacy was not significantly related to the frequency or variety of strategies people said they attempted to use once the number of negotiations they reported was taken into account. However, self-efficacy was positively related to the number of negotiations people reported having during the week between the training and their simulation, even after motivation to learn was controlled (see Table 15, $\Delta R^2 = .05$).

Hypotheses 3a, 3b, and 3c predicted that three additional motivational mechanisms, competence valuation, goal variety, and situational cueing, would be positively related to transfer behavior. Because motivation to learn and self-efficacy have been supported in previous research as predictors of transfer behavior and performance (Colquitt, LePine, & Noe, 2000), they were entered in the first step of each regression. Competence valuation, goal variety, and situational cueing were entered in the second steps of the regressions to test whether each construct would add to our understanding of transfer based on self-efficacy and motivation to learn.

Competence valuation was significantly positively related to the number of negotiation strategies attempted in personal life, even after the number of negotiations

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reported was controlled (see Table 18, $\Delta R^2 = .03$). People who had stronger desires to be good at negotiation following the training reported that they attempted to use more strategies per negotiation than those who had weaker competence valuation. Contrary to prediction, competence valuation was not significantly related to the number of strategies attempted during the laboratory simulation, nor to the variety of strategies attempted either in the lab or in real life (see Tables 16-19). Competence valuation also was not related to the number of negotiations people reported having between the training and the simulation one week later (see Table 20).

During the negotiation simulation, goal variety did not have a significant relationship with the number or variety of strategies people attempted to use during the simulation (see Tables 21 and 22). In participants' reports of the strategies they had tried to use during the week between the training and simulation, goal variety was significantly related to transfer behavior (see Tables 23 and 24; $\Delta R^2 = .02$ and $.05$). Participants who strongly endorsed their intentions to use a wider variety of the nonassertive strategies during the week also reported that they had used more strategies and a wider variety of strategies over that week, even after the number of negotiations they reported was controlled. Having goals to use a variety of negotiation strategies during the week was not significantly related to the number of negotiations people reported having (see Table 25).

Situational cueing was related to transfer behavior differently in the simulation versus in real-life negotiations. For the simulation, situational cueing was significantly related to transfer behavior (see Tables 26 and 27). People who reported that they had experienced situational cues helping them think of particular strategies were rated as

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using more negotiation strategies ($\Delta R^2 = .09$) and a wider variety of strategies ($\Delta R^2 = .05$) by the experimenters. In contrast, for negotiations participants had in their own lives during the week, easily being able to think of particular strategies was not significantly related to transfer behavior (see Tables 28-30).

In conclusion, for Hypotheses 3a, 3b, and 3c regarding the impacts of the mediating motivational mechanisms on transfer behavior, the data provided partial support. Each of the three constructs was significantly related to some aspects of transfer behavior.

Effects of the Target Motivational Constructs on Mediating Motivational Mechanisms

Hypotheses 4 through 6 predicted that the motivational constructs targeted by the experimental transfer motivation intervention would each influence another motivational mechanism more proximal to transfer behavior. Because the mediating motivational mechanisms that served as dependent variables in these analyses were not highly correlated (see Table 6, $-.05 < r < .39$), independent regressions were conducted.

Perceived personal relevance. Hypothesis 4 predicted that the extent to which people perceived the training to be relevant to their personal goals would influence their level of competence valuation for the training. This hypothesis was tested using hierarchical regression, controlling for the potential impact of motivation to learn on competence valuation. Hypothesis 4 was supported; perceived personal relevance was significantly positively related to competence valuation even when participants' motivation to learn negotiation strategies was taken into account (see Table 31, $\Delta R^2 = .27$).

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Self-regulatory focus. Hypothesis 5 predicted that a person's self-regulatory focus following training would impact the variety of goals they held regarding transfer. Specifically, an approach orientation was predicted to enhance goal variety, while an avoid orientation was predicted to limit variety. This hypothesis was tested using hierarchical regression, controlling for the potential impact of motivation to learn. Concerning the variety of strategies people said they would try to use during the simulation, self-regulatory focus was not significantly related to goal variety (see Table 32). Regarding the variety of goals people endorsed for their negotiations in personal life, self-regulatory focus was a significant predictor (see Table 33, $\Delta R^2 = .12$). Approach-mastery self-regulatory focus, or focusing attention and effort on mastering the strategies, was positively related to having goals to use a variety of the nonassertive negotiation strategies. Approach-performance self-regulatory focus, or focusing attention and effort on getting desired outcomes in the negotiations, was also positively related to having goals to use a variety of strategies. Avoid self-regulatory focus, or being worried about poor strategy understanding or others' perceptions, was negatively related to goal variety for negotiations in personal life. Finally, only avoid self-regulatory focus was significantly related to the variety of goals people had for using the assertive strategies either in the lab or their personal lives (see Table 34, $\Delta R^2 = .04$). Being worried about negotiation skills and outcomes was significantly negatively related to intending to use the assertive strategies.

Implementation intentions. Hypothesis 6 predicted that implementation intentions would positively impact situational cueing. This hypothesis was tested with hierarchical regression, entering motivation to learn in the first step and implementation intentions in

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the second step. Implementation intentions were not significantly related to situational cueing of particular negotiation strategies after gender and motivation to learn were controlled (see Table 35).

Summarizing the results for Hypotheses 4 – 6 related to the relationships between the target motivational constructs and the mediating motivational mechanisms, only partial support was found for the proposed model of transfer motivation. Personal relevance and competence valuation were related as expected, self-regulatory focus and goal variety were related as expected only for specific subfactors, and implementation intentions and situational cueing were not significantly related.

Effects of the Transfer Intervention on Transfer Motivation

Hypotheses 7, 8, and 9 predicted that the experimental transfer motivation intervention would lead to higher levels of the target motivational constructs than the action planning intervention or the training-only control conditions. These hypotheses were tested with analysis of covariance (ANCOVA). Because this investigation is exploratory, focuses on between-subject differences, and has not hypothesized relative impact of the intervention on the various motivational states, and because univariate tests generally have higher power and less restrictive assumptions, they were selected over multivariate tests (Harris, 1985; Huberty & Morris, 1989). There was some degree of correlation among the target motivational constructs, particularly between approach-mastery self-regulatory focus and both personal relevance ($r = .54$) and implementation intentions ($r = .42$). Relationships among the other constructs ranged from .00 to .28 (see Table 6). Conclusions from the separate regressions may include some overlap of the effects of the interventions on a common underlying construct.

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Perceived personal relevance. Hypothesis 7 predicted that the experimental transfer intervention would lead to higher levels of perceived personal relevance than the prototypical action planning intervention or the control condition with no transfer intervention. This hypothesis was tested using analysis of covariance (ANCOVA), controlling for gender and motivation to learn. The transfer motivation intervention condition was contrasted with the two control conditions combined. This hypothesis was not supported (see Table 36). Gender and motivation to learn prior to training had a significant relationship with perceived personal relevance following the training, but experimental condition did not have a significant impact on perceived personal relevance.

Self-regulatory focus. Hypothesis 8a predicted that the experimental transfer intervention would lead to higher levels of approach self-regulatory focus and lower levels of avoid self-regulatory focus than the prototypical action planning intervention or the control condition with no transfer intervention. The transfer motivation intervention was contrasted against the two control conditions combined. Hypothesis 8b predicted that the two control conditions would also differ in levels of self-regulatory focus, because action planning interventions may implicitly create somewhat stronger approach than avoid focus. This hypothesis was tested with the contrast between the action planning group and the control condition with no transfer intervention. The hypotheses were tested separately for approach-mastery, approach-performance, and avoid self-regulatory focus.

For approach-mastery self-regulatory focus, Hypothesis 8a received no support; there was no significant main effect for condition (see Table 37). Hypothesis 8b also was not supported; in fact, there was a significant relationship counter to the direction

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hypothesized. Participants in the training-only control condition had significantly greater approach-mastery self-regulatory focus than participants in the action planning condition, $F(1,183) = 14.42, p < .05$ for the contrast. Motivation to learn had a significant positive relationship with approach-mastery self-regulatory focus, and there was a significant interaction effect (see Figure 4). The relationship between motivation to learn and approach-mastery self-regulatory focus was more positive in the action planning condition. A post hoc comparison of means in the action planning condition versus the training-only and motivation planning conditions indicated that this difference was statistically significant ($F = 9.04, p < .05$). For approach-performance self-regulatory focus, neither motivation to learn nor experimental condition had a main effect (see Table 38). Thus, Hypotheses 8a and 8b were not supported. For avoid self-regulatory focus, experimental condition did not have a main effect (see Table 39). Thus, Hypotheses 8a and 8b were not supported. Gender had a significant impact on avoid self-regulatory focus (female participants tended to have significantly stronger avoid self-regulatory focus), but motivation to learn did not have any effect on avoid self-regulatory focus.

Implementation intentions. Hypothesis 9 predicted that the experimental transfer intervention would lead to stronger implementation intentions than the prototypical action planning intervention or the control condition with no transfer intervention. The ANCOVA for this hypothesis revealed a significant main effect for motivation to learn on implementation intentions, but no effect of experimental condition or interaction of condition with motivation to learn (see Table 40). Hypothesis 9 was not supported.

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Tests of Mediation

The final set of hypotheses proposed two sets of mediating relationships important for testing the proposed model and intervention. Tests of mediation require four component analyses: (1) demonstration of significant relationships between the independent variables and the mediators, (2) demonstration of significant relationships between the mediators and the dependent variables, (3) demonstration of significant relationship between the independent variables and the dependent variables, and (4) demonstration that the relationships between the independent and dependent variables disappear when the mediators are included in the model (James & Brett, 1984). These analyses are described below for each set of mediation hypotheses.

Explaining the Impact of the Transfer Motivation Intervention on Transfer Behavior

Hypotheses 10a, 10b, and 10c predicted that the transfer motivation intervention would have significant positive effects on transfer behavior through the target motivational constructs (perceived personal relevance, self-regulatory focus, and implementation intentions). The relationships between experimental condition and the target motivational constructs were tested in Hypotheses 7, 8, and 9, and were found to have no effect, with the exception of the significant interactions between motivation to learn and experimental condition on approach and avoid self-regulatory focus. Given the lack of significant relationship between the intervention and the target motivational constructs, a mediation model tracing the impact of the intervention on transfer behavior was not supported. However, additional exploratory analyses were conducted to examine potential relationships between the experimental condition and transfer behavior, and

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between the target motivational constructs and transfer behavior. Results for these non-hypothesized relationships are reported in Appendix N and described below.

Effects of experimental condition on transfer behavior. Controlling for motivation to learn and self-efficacy, the effects of the transfer motivation intervention on transfer behavior were tested with ANCOVA. The intervention did not have a significant impact on the number or variety of negotiation strategies participants tried to use during the simulation or in their personal negotiations, nor the number of negotiations people had during the week following training (see Appendix N, Tables N1-N5). In summary, there were no significant differences in transfer behavior among the groups receiving training only, training plus action planning, or training plus experimental motivation planning.

Effects of the target motivational constructs on transfer behavior. Although the target motivational constructs were not significantly influenced by the experimental transfer motivation intervention as intended, their potential impact on transfer behavior was tested using hierarchical regression controlling for motivation to learn and self-efficacy in the first step. Post-training perceptions that the training material was personally relevant were significantly positively related to the number of negotiations people reported that they had during the week between training and the transfer simulation. This relationship was significant even after motivation to learn negotiation and self-efficacy with negotiation strategies had been controlled (see Table N10). Personal relevance was not significantly related to the number or variety of negotiation strategies participants tried to use during the simulation or in their personal negotiations (see Tables N6-N9). Participants' post-training self-regulatory focus was not

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significantly related to the number or variety of negotiation strategies attempted during the simulation or in real-life negotiations, nor was it significantly related to the number of negotiations participants reported having (see Tables N11-N15). The final target motivational construct, post-training implementation intentions, was significantly positively related to the number and variety of negotiation strategies participants reported using during their negotiations during the week between training and the simulation (see Tables N18 and N19). Implementation intentions were not significantly related to the number of negotiations people had during the week (see Table N20) nor the number or variety of strategies they used during the simulation (see Tables N16 and N17). In summary, the target motivational constructs had limited influence on transfer behavior. Significant relationships were limited to the negotiations people reported in their personal lives; no significant relationships were found between these constructs and transfer behavior during the simulation.

Explaining the Impact of the Target Motivational Constructs on Transfer Behavior

Hypotheses 11a, 11b, and 11c predicted that the target motivational constructs (perceived personal relevance, self-regulatory focus, and implementation intentions) would positively influence transfer behavior through three mediating motivational mechanisms more proximal to transfer behavior (competence valuation, goal variety, and situational cueing, respectively). The relationships between the target motivational constructs and the mediating motivational mechanisms were tested in Hypotheses 4, 5, and 6. In general, these analyses provided support for the relationships among these sets of motivational constructs. The relationships between the mediating motivational mechanisms and transfer behavior were tested in Hypotheses 3a, 3b, and 3c. These

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analyses provided limited support for the impact of particular motivational mechanisms on particular transfer behaviors. The relationships between the target motivational constructs and transfer behavior were tested in the exploratory analysis described above. Again, limited support was found for the impact of certain target motivational constructs on particular transfer behaviors. None of the relationships tested fulfilled the first three requirements for conclusions of mediation. Therefore, no additional analyses were performed.

Supplemental Analyses

Although not hypothesized, analyses were conducted to test the effect of the experimental transfer motivation intervention on the mediating motivational mechanisms. Only one relationship was significant and is reported here. There was a significant interaction effect for transfer motivation condition and motivation to learn on competence valuation, even after controlling for the impact of perceived personal relevance, $F(2,182) = 6.38, p < .05, \Delta R^2 = .03$. Figure 5 depicts this interaction effect. For participants in the training-only control condition, the relationship between motivation to learn and competence valuation was not significant, $R^2 = .03, p = .20$. In the action and motivation planning conditions, this relationship was significantly positive ($R^2 = .41$ and $R^2 = .21$, respectively, $p < .05$). For those high in motivation to learn, competence valuation was the same across conditions, $F(1,182) = 0.10, p = .76$; however, for those low in motivation to learn negotiation, competence valuation was significantly lower for those in the action and motivation planning conditions than in the training-only control condition, $F(1,182) = 5.24, p < .05$.

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Further analyses tested for relationships between the target motivational constructs and transfer performance outcomes. There were no significant relationships between personal relevance, self-regulatory focus, or implementation intentions and performance in the negotiation simulation. Approach-mastery self-regulatory focus was significantly positively related to self-ratings of negotiation performance in personal life after motivation to learn and self-efficacy were controlled, $F(3,180) = 20.25, p < .05, \Delta R^2 = .02$. Implementation intentions were also significantly positively related to self-ratings of negotiation performance in personal life after motivation to learn and self-efficacy were controlled, $F(3,180) = 20.98, p < .05, \Delta R^2 = .03$.

Similar analyses were conducted to test relationships between the mediating motivational mechanisms and transfer performance. Only two relationships were statistically significant. Competence valuation was not related to transfer performance. Goal variety for negotiations in personal life during the week following training was significantly positively related to self-ratings of negotiation performance during this period after motivation to learn and self-efficacy were controlled, $F(3,180) = 20.59, p < .05, \Delta R^2 = .03$. Situational cueing was significantly positively related to salary in the negotiation simulation after motivation to learn was controlled, $F(2,185) = 15.94, p < .05, \Delta R^2 = .10$.

To summarize, several, but not all, of the hypotheses in this investigation were supported or partly supported. Although the transfer motivation intervention had virtually no impact on transfer behavior and performance, the new motivational constructs introduced in this investigation were significantly related to each other and to transfer behavior, though not always as predicted. Table 41 presents a summary of the

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significant predictors for each of the transfer behavior outcomes. In the next section, I integrate and evaluate these findings and present implications for future research.

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DISCUSSION

The purpose of this study was to determine whether ideas drawn from recent advances in motivational theory could improve our understanding of and ability to impact successful training transfer. The existing literature regarding transfer has supported trainee motivation, and specifically motivation to learn and self-efficacy, as important influences on transfer. However, this literature has been limited in its ability to help us understand the processes by which people translate their beliefs into successful transfer behavior, or the individual's role in shaping their own transfer goals and motivation. Research in goal hierarchies, approach and avoid goals, and implementation intentions was used to create a conceptual model of training transfer motivation, as well as a post-training intervention designed to improve transfer motivation and outcomes.

The model suggested that explicit attention to helping trainees (a) identify connections between training content and personal higher-order goals, (b) set approach goals and bound avoid goals with approach goals, and (c) connect behavioral strategies to particular anticipated situations would improve transfer motivation and transfer behavior and performance. This model received only partial support from the data. The transfer motivation intervention did not have the anticipated effects on transfer motivation. The new motivational constructs did impact transfer behavior and performance over and above our understanding based on motivation to learn and self-efficacy; however, relationships were not consistent in the laboratory and personal life settings. People differed in important ways in the extent to which they perceived the training as personally relevant, how much they valued being good at negotiation, the strength of their approach and avoid self-regulatory focus, the variety of goals they held for using the negotiation

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strategies, their intentions to use particular strategies in particular situations, and the extent to which they felt reminded of the strategies by the situations they encountered. Each of these motivational constructs had some connection to the other motivational variables or transfer behaviors they were expected to impact. In some cases, the impact of the motivational intervention on the motivational variables was limited by individuals' prior motivation to learn negotiation. Overall, this investigation's most significant contribution is the identification of some specific individual differences in motivational processes that impact training transfer behavior and performance.

Key Findings and Contributions

Motivation to learn. One of the key contributions of this study is the finding that motivational constructs other than motivation to learn and self-efficacy impact the extent to which people try to use skills learned in training. Prior research has shown that motivation to learn is positively related to declarative knowledge, skill acquisition, reactions to training, motivation to transfer, and transfer (Colquitt, LePine, & Noe, 2000). In this study, motivation to learn negotiation strategies prior to training was related only to the number of negotiations people reported having during the week following training. Motivation to learn was not related to the number or variety of skills people attempted in any of the negotiations they had, including the simulated negotiation in the laboratory. Even when people reported that they were motivated to learn the training content, they were not more likely to try to use the strategies. In addition, while motivation to learn was related to nearly all of the more recent motivational constructs included in the model, it could not completely explain how these newer constructs related to each other. Motivation to learn remained an important part of the picture of training transfer, but the

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constructs investigated here provided significant improvements to this picture. As will be discussed later, the intervention tested in this investigation also moderated the relationship between motivation to learn and the other motivational constructs.

Self-efficacy. In previous research, self-efficacy has been positively connected to transfer performance (Ford, Quiñones, Sego, & Sorra, 1992; Ford, Smith, Weissbein, Gully, & Salas, 1998; Gist, Stevens, & Bavetta, 1991; Stevens & Gist, 1997). In this investigation, self-efficacy was related to some aspects of transfer behavior as predicted. Participants' post-training self-efficacy predicted the variety of strategies they attempted to use during the simulation and the number of negotiations people had in their personal lives. However, self-efficacy was not related to the number of times people tried to use the strategies during the simulation nor to the number or variety of attempts they made during each negotiation in their personal lives. Even though self-efficacy had some importance in determining transfer behavior, the motivational constructs investigated in this study added to the ability to predict transfer attempts.

Higher-order goals. The motivation literature suggests that goal hierarchies play an important role in directing behavior and sustaining goal-directed energy (Carver & Scheier, 1998). Further, relevance to important personal goals has been connected to self-regulatory responses (Levallee & Campbell, 1995), interest in feedback (Trope & Pomerantz, 1998), and memory (Bower & Gilligan, 1979). Prior research has also found personal relevance beliefs to be susceptible to manipulation (Neisser, 1975). Competence valuation has been positively connected to achievement goal striving (Elliot & McGregor, 2001). In this study, competence valuation was expected to be an antecedent of personal relevance. An exercise encouraging people to draw connections

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between the training program's content and their important personal goals was expected to improve personal relevance, competence valuation, and transfer behavior.

Although the intervention was unsuccessful at influencing the degree to which people appeared to make connections between the training and their higher-order goals (perhaps because these connections were readily apparent simply based on the training workshop), perceived personal relevance and competence valuation were related to transfer behavior. People who perceived the training as more relevant to their personal goals tended to value competence in negotiation, regardless of their reported motivation to learn negotiation strategies. Competence valuation at the conclusion of training was in turn positively related to the number of times people reported attempting to use the strategies in negotiations during the week following training. Perceived personal relevance also had a direct relationship with the number of negotiations people reported having during the week. Both perceived personal relevance and competence valuation were related to motivation to learn; however, motivation to learn was not related to the number of negotiations reported nor the number of attempts to use the strategies during those negotiations. Thus, this investigation suggests that individual differences in perceptions of personal relevance and competence valuation are able to add to our understanding of transfer behavior. This supports the conclusion of Yelon, Reznich, and Sleight (1997) that the first step in the dynamic process of transfer is a learner's perception that an idea is "functionally significant" (i.e., related to his or her personal history, purposes or goals, or needs in the work environment). Further, there was no evidence to suggest that perceived personal relevance or competence valuation acted as

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mediators of a relationship between motivation to learn and transfer behavior. Rather, these constructs were important in their own right.

Approach and avoid goals. Another area of motivation research which has not been previously applied to training transfer is approach and avoid motivation (Carver & Scheier, 1998; Higgins, 1997; Elliot, 1999). Approach motivation has generally been favored for a number of cognitive, affective, behavioral, and outcome advantages. The intervention designed in this investigation aimed to increase trainees' focus on approach motivation and decrease their focus on avoid motivation. It was further expected that self-regulatory focus would impact the variety of transfer goals trainees would endorse. The experimental intervention was unsuccessful at influencing the degree to which people adopted approach or avoid self-regulatory focus, or the variety of goals they held for their negotiations. However, these motivational variables were related to transfer behavior and performance. Self-regulatory focus was related to the variety of goals people endorsed for negotiations in both their personal lives and the laboratory simulation. Interestingly, the relationship differed depending on the type of strategies. Regarding the non-assertive strategies, both approach-mastery and approach-performance self-regulatory focus were positively related to a broader variety of goals to use the strategies in personal life. Conversely, avoid self-regulatory focus led to a narrower variety of goals for strategy use in personal life. Regarding the assertive strategies, which involve directly confronting a negotiation opponent about their behavior, only avoid self-regulatory focus was important. Being worried about negotiation skills and outcomes led to endorsing a narrower variety of goals for both the simulation and personal life.

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Motivation to learn was positively related to approach-mastery self-regulatory focus, but there was some evidence that this relationship could be moderated by interventions. Interestingly, it appears that the standard action planning intervention (used as a control condition in this investigation) led to low levels of approach-mastery self-regulatory focus among participants. Having trainees set goals without any specific instruction to make them learning improvement goals may have led participants to focus more on negotiation outcomes and anxieties. An alternative explanation is that the individuals in the action planning condition tended to be more approach or mastery-focused by nature than individuals in the other two conditions, despite random assignment. With respect to transfer behavior, goal variety was significantly related to the number and variety of strategies people reported using in each of their personal negotiations. Self-regulatory focus and goal variety did not act as mediators between motivation to learn and transfer behavior, but rather made independent contributions to our understanding of transfer behavior.

Implementation intentions. The third area of motivational theory that was applied to the training transfer process in this study was implementation intentions. Prior research has found that behavioral intentions are not sufficient to produce behavior (Gollwitzer, 1999). Recent theory has advanced specific implementation intentions as a way to improve the link between goals and behavior, and early investigations have provided evidence that this is effective (Aarts, Dijksterhuis, & Midden, 1999; Orbell, Hodgkins, & Sheeran, 1997; Aarts & Dijksterhuis, 2000). Applying this research to training transfer, the intervention proposed in this investigation prompted people to set

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implementation goals. By making particular transfer opportunities more salient, it was expected that situational cueing of the strategies during a negotiation would be enhanced.

Although the transfer intervention did not have a significant impact on self-reported implementation intentions or situational cueing, this investigation did find evidence linking these constructs to transfer behavior. People who reported having stronger intentions to use particular strategies in particular situations also reported using more strategies, and a wider variety of strategies, in negotiations in their personal lives. Their specific intentions may have enhanced their memories for the strategies. Participants who reported experiencing stronger situational cueing of the negotiation strategies during the simulation were rated as using more negotiation strategies and a wider variety of strategies. This suggests that when participants experienced strategies coming to mind during the simulation, they tried to use them. This interpretation must be made with caution, since the measure of situational cueing was completed retrospectively, after the actual behaviors had taken place. While it is difficult to argue that participants who used more negotiation strategies did not experience situational cueing, it is not necessarily the case that these cues were related to their implementation intentions. Future research should more carefully trace the content of implementation intentions, experiences of situational cueing, and transfer behavior to determine whether the behavior and cues are directly tied to implementation intentions formed prior to the transfer opportunity.

In summary, the key contribution of this investigation is support for the importance of motivational constructs apart from pre-training motivation to learn and post-training self-efficacy in predicting transfer behavior and performance. Recent

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developments in motivational theory can contribute to our understanding of the motivational processes involved in training transfer. The extent to which trainees attempt to use the skills learned in training depends on factors other than how motivated they were to learn the training content or how confident they felt about their skills following the training. Transfer behavior also depends on more specific trainee beliefs involving the personal relevance of the training and the importance of being competent in the area covered by training. Trainee attempts to use what they learned in training also depends on the variety of goals trainees have in mind when they leave training, as well as the situational specificity of those goals and the cueing they experience in the transfer environment.

Unexpected Findings

There were several expectations related to this study's theory-based intervention and hypothesized relationships that were not supported empirically. In addition to the expected findings examined above, these nonsignificant or unexpected findings are worthy of attention.

Impact of intervention. Contrary to predictions, the transfer motivation intervention had no main effects on the motivational constructs, transfer behavior, or transfer performance. The only mean difference that even approached statistical significance ($p = .09$) indicated marginal distinction among strength of implementation intentions in the three conditions (3.09 in the training-only control, 3.21 for action planning, and 3.32 for motivation planning). Even in less stringent follow-up tests of the intervention, where motivation to learn and self-efficacy were not controlled because they did not differ significantly across the three conditions, the transfer intervention had

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virtually no impact. In fact, the only significant differences between conditions in these analyses favored the training-only control condition over the action planning or experimental motivation planning conditions.

People in the training-only control condition, who received no transfer intervention, reported a significantly greater number of negotiations between training and the simulation than did people in the motivation planning condition, $F(2,186) = 3.55, p < .05; t = 7.06, p < .05$. People in the training-only control condition also attempted a significantly wider variety of negotiation strategies during the simulation than people in the motivation planning condition, $F(2,186) = 3.40, p < .05; t = 6.72, p < .05$. There is a possibility that these differences resulted from a tendency of participants in the action planning intervention conditions to be more focused in their attempts to use the negotiation strategies than they otherwise would have been. However, their planfulness, or perhaps overreliance on the action plan they created immediately following the training at the expense of being thoughtful or watchful for additional opportunities to apply the training, did not benefit them in the end. Overall, the results of this study suggest that they would have been more successful, at least with this particular training program, had they used a more scattered approach to applying the strategies in more personal negotiations and tried a wider variety of strategies during the simulation.

Participants' own evaluations of their transfer performance during the simulation indicated that only 11% felt they had accomplished all of their transfer goals, while 70% felt that they had accomplished only some of their goals (a widespread acknowledgement that they did not have enough motivation to overcome knowledge, skill, social impression, or other barriers to transfer). There was no difference in self-assessments of

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transfer goal accomplishment across conditions, $F(2,182) = 0.09, p = .92$. Regardless of whether they had been induced to set transfer goals, participants seemed to have goals and to end up feeling similarly about their success in meeting those goals despite efforts in the intervention to influence these processes.

The intervention designed in this investigation represents the first systematic attempt to incorporate the motivational research areas of higher-order goals, approach and avoid motivation, and implementation intentions into training transfer. The theory behind this intervention is new and largely unapplied, unmeasured, and untested. Thus, both the model and intervention proposed here can be considered relatively exploratory. The intervention failed to significantly impact participants' motivational processes or transfer behavior and performance. The question that cannot be resolved by this study is: could the intervention be made powerful enough to have a strong impact? Two potential avenues for improvement and future research stand out: increasing the power of the intervention to affect the target motivational constructs, or shifting the focus of the intervention to motivational targets more proximal to transfer behavior. These two possibilities will be discussed.

First, it is possible that an intervention targeting perceptions of personal relevance, self-regulatory focus, and implementation intentions could successfully improve transfer motivation and performance, but that this particular intervention's design was ineffective. Three possible areas for intervention design improvement are the timing, duration, and guidance provided. With respect to timing, the intervention was presented immediately following the training, near the end of a three-hour session. Participants may have been fatigued or mentally overloaded by the volume of training

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content presented rapidly throughout the training session, and thus unable to complete the intervention effectively. Additionally, Weissbein (2000) found that his pre-training transfer intervention was more effective than a parallel post-training intervention. It may be important to influence trainee motivation prior to their exposure to the training program rather than attempting to influence motivation after trainees have drawn their own conclusions about the personal relevance of the training or the self-regulatory focus they intend to adopt as they apply their skills. A post-training intervention was chosen in this study despite Weissbein's conclusion that pre-training manipulations may be more effective to try to take advantage of the opportunity to have trainees be in charge of making their own personal connections and setting transfer goals that were meaningful to them. Research on adult learning supports the effectiveness of allowing for learner control and proactivity rather than spelling everything out for adult learners. Because of the nature of the intervention components, it was thought that trainees needed to first learn the training content before they would be able to connect the content to their higher-order goals or set approach or especially implementation goals, which require specifying particular strategies for application. Although some familiarity with the content is indeed necessary to complete the intervention, perhaps a timing compromise could be achieved that would allow the intervention to have an impact prior to training. For instance, the concepts involved in the intervention could be introduced prior to training, and trainees could be given worksheets to jot thoughts on during the training and complete at the end of training. This would enable trainees to set specific goals as they became familiar with the training content and would have the added advantage of influencing the way people think about their motivation to apply the trained skills right from the start of training.

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Along with the intervention's post-training timing, its brevity may have hindered success. In some training programs, participants are given a window of time following the training course to complete an action plan, sometimes in collaboration with their supervisor. Perhaps the intervention tested in this study would have been more effective if participants had more time to think about their responses rather than just writing the first things that came to mind. Further, the amount of guidance and coaching regarding the intervention exercises was minimal. Perhaps additional explanations, instructions, or samples of how to complete each exercise well would have improved the intervention's effectiveness. For instance, since approach-mastery and approach-performance self-regulatory focus were empirically distinct, perhaps providing more specific focus on mastery versus performance goals would have improved the impact of the intervention. Prior research has shown that mastery and performance goal orientation do have manipulable state components (Dweck, 1986; Elliot & Dweck, 1988; Stevens & Gist, 1997).

The second area for potential improvement of the intervention is targeting motivational constructs more proximal to transfer behavior. The motivational constructs that were the intended targets of the intervention did predict transfer behavior. However, they may be influenced predominantly by relatively stable individual differences or by reactions to the training itself, and thus not susceptible to the transfer planning interventions. Perceptions of personal relevance may have been dominated by reactions to the training content, which included several examples intended to be directly relevant to the participants. It is possible that participants naturally thought of personal goals related to the training content, and as a result, the transfer planning exercise did not add

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anything. Higgins (1997) notes that both trait and state influences determine whether people adopt approach or avoid self-regulatory focus in a particular situation. Similarly, mastery and performance goal orientation have been argued to have both trait and state components. What is unclear is the relative contributions of these two influences. The brief intervention aimed at self-regulatory focus in this study may not have been strong enough to overpower participants' natural tendencies. Implementation intentions may have been influenced either by the examples provided in the training or by individual differences in tendencies to adopt these kinds of goals. The research on implementation intentions has shown that both voluntarily created and experimentally induced implementation intentions can occur and influence behavior. The training specifically incorporated some suggestions regarding when each strategy would be most appropriate, so these connections may have played the role of implementation goals for all participants. Encouraging people to set implementation goals may not have had a big impact on whether they adopted these goals. In addition, the research to date on implementation intentions has focused on setting goals for individual pursuits such as eating healthy foods, exercising, or performing surgery recovery behaviors. Negotiation, by definition, is an interpersonal activity. It may be more difficult for people to set accurate implementation goals because they do not know in advance what their opponent will do. Thus, their implementation goals are limited to opportunities they know they can create or uncertain predictions of what their opponent may do during the negotiation. This line of reasoning may explain why participants' ratings of their implementation intentions were unrelated to participants' experience of situational cueing during their negotiations.

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Rather than targeting these constructs, perhaps it would be more effective to focus the intervention directly on the motivational process variables that are hypothesized to be more proximally linked to transfer behavior. For instance, the intervention might be more successful if it focused directly on competence valuation rather than personal relevance. Direct discussions during the training, or with work supervisors, regarding why it is important to be good at the training content, might help people think about how much they value practicing and using the skills they have learned. Competence valuation, more so than personal relevance, was related to transfer behavior in this investigation. Apparently, wanting to be good in an area adds something beyond simply seeing the training as relevant to personal goals. Focusing trainees' attention on their desires to become good at the training content may help them leave training with stronger commitment to putting the skills to use. In addition to these constructs, other constructs from the theoretical perspectives examined here or others could be identified that are important to the transfer motivation process.

Similarly, focusing the intervention directly on goal variety, which was related to transfer behavior, may have been more effective than focusing on approach and avoid goals. Trainees could be directly encouraged to set goals to use a wide variety of the skills learned in training, and the benefits of using multiple approaches within and across transfer situations could be emphasized. Clearly, with a training subject like negotiation, having more strategies at your disposal in a negotiation gives you an advantage that is not possible by perfecting the use of a few particular strategies. The same is true for common training topics such as leadership, and the same philosophy could easily apply even to training of mechanical skills where mastering an entire process is important.

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Perhaps more direct attention to situational cues rather than just implementation goals would be more effective. The negotiation training workshop for this investigation addressed situational cueing during the training by emphasizing appropriate moments to use each strategy during a negotiation. Thus, the training itself may have influenced the degree to which participants experienced situational cueing during their subsequent negotiation opportunities. Emphasizing specific cues for trained skills (e.g., employee behaviors prompting leadership responses, mechanical trouble signals prompting troubleshooting actions), and perhaps having participants create implementation plans that include ways to be alert for those cues, could be more effective than simply creating implementation goals without focusing on the significance of being alert to and responding to situational cues in the transfer environment.

In summary, it is unclear why the intervention designed in this investigation had no impact on the motivational constructs. Two possible explanations include the need for improvements to the design of the intervention, or to the focus on motivational constructs hypothesized to have more proximal connections to transfer behavior.

Different relationships in simulation vs. personal life negotiations. It was anticipated that the relationships between transfer motivation and transfer behavior and performance would be largely parallel. The personal life setting was included not as a separate factor in the experiment, but with the intention of strengthening conclusions from a laboratory investigation by incorporating the opportunity to study participants' use of the trained strategies in their personal lives as well as in the lab. Contrary to expectations, this investigation found many differences between the two settings. Table

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42 summarizes the significant relationships in each setting. Two possible reasons explaining the discrepant findings stand out.

Table 42

Significant Empirical Relationships in the Laboratory vs. Personal Life Settings

| Hypothesis | Laboratory Setting | Personal Life Setting |
|--|---|---|
| (1a) Transfer Behavior → Transfer Performance | Experimenter ratings of transfer behavior → Experimenter ratings of transfer performance | Self-ratings of transfer behavior → Self-ratings of transfer performance |
| (2) Self-efficacy → Transfer Behavior | SE → Variety of attempts | SE → Number of negotiations |
| (3a) Competence Valuation → Transfer Behavior | <i>n.s.</i> | CV → Number of attempts |
| (3b) Goal Variety → Transfer Behavior | <i>n.s.</i> | GV → Number of attempts → Variety of attempts |
| (3c) Situational Cueing → Transfer Behavior | SC → Number of attempts → Variety of attempts | <i>n.s.</i> |
| (5) Self-regulatory Focus → Goal Variety | <i>n.s.</i> | Approach-mastery SRF → Goal Variety (nonassertive) Approach-performance SRF → Goal Variety (nonassertive) Avoid SRF (-) → Goal Variety (nonassertive) Avoid SRF (-) → Goal Variety (assertive) |

First, some of the discrepant results between the laboratory and personal life data may result from measurement choices in this investigation. For instance, goal variety was significantly related to transfer behavior and performance in personal life, but not in the laboratory setting. Participants provided self-report data regarding their strategy use for each strategy and performance self-ratings regarding how effectively they thought they had used the strategies overall. Their ratings of strategy use and performance may have

been influenced by a variety of biases including the desire to present themselves as having met their transfer goals, imprecise memory of actual strategy attempts, or effectiveness ratings focusing on negotiation outcomes rather than demonstration of skill using the particular strategies. Ratings of skill use during the simulation by the experimenters may have been subject to other biases, but raters would not be inclined to provide performance ratings consistent with participants' goals, especially since the experimenters were blind to participants' prior goal-setting. Similar measurement problems may also lie behind the discrepant findings for other relationships tested, particularly since many of the measures used in this investigation have not been evaluated in prior research.

An alternative explanation for the discrepant findings between the laboratory and personal life data is that the motivational processes in fact differed between these settings due to characteristics of the settings or the particular negotiations participants had in each setting. The relationships among the motivational constructs may be more complex than suggested by the proposed model. For example, demand characteristics may have influenced participants' transfer behavior in the negotiation simulation but not in their personal lives. Participants who valued being competent at negotiation may have been very motivated to practice the strategies in their personal lives, but not particularly concerned with using the strategies during the simulation, explaining the lack of impact of competence valuation on simulation transfer behaviors. People may have felt more committed to pursuing a variety of strategies in their personal negotiations than they did in the laboratory, particularly following ineffective negotiation attempts. Because their negotiations in personal life had real outcomes for them, participants may have been

more willing to persist with a greater number of strategies than in the laboratory, where they received the same credit no matter how many strategies they used. Situational cueing may have been more effective in the simulation because the experimenter provided relatively more familiar prompts for the strategies in a negotiation similar to those practiced in training; participants may have had a harder time anticipating and being alert to situational cues in the negotiations in their personal lives. In addition, they may have struggled more with mapping the situational cues in their personal negotiations, which could be about any problem, back to the training regarding when each strategy would be most appropriate.

Another possibility involves complex interactions of the motivational constructs across the three paths based on the intervention elements. For instance, goal variety and situational cueing may interact in ways that make them mutually exclusive under certain conditions. Despite having high levels of goal variety in both the simulation and personal life, participants were likely more committed to the goals relevant to negotiations in their own lives. Thus, in the personal life setting, goal variety may have outweighed the more opportunistic motivation presented by situational cueing to motivate transfer behavior. In the simulation, however, participants may not have been as committed to their goals to use the strategies. In this case, situational cueing of particular strategies may have been more important for motivating transfer behavior. It is impossible to understand whether the differences in relationships between the laboratory and real life settings found in this investigation represent true differences in the motivational processes in these settings without additional research.

Lack of support for mediation paths. The model proposed in this investigation hypothesized three sets of mediating relationships linking the new motivational constructs to each other and to transfer behavior. These mediating relationships were not supported, suggesting that a different model would better describe the pattern of relationships connecting the motivational constructs to each other, to additional motivational constructs such as motivation to learn and self-efficacy, and to transfer behavior. For example, although self-regulatory focus was related to goal variety, and goal variety was related to transfer behavior, self-regulatory focus was not related to transfer behavior. This suggests that a motivational intervention focusing more directly on helping people set a variety of transfer goals regardless of their self-regulatory focus might be more effective. Also, as measured in this study, implementation intentions were not significantly related to situational cueing. This is surprising given the theoretical focus on situational cueing as a key explanation for the effectiveness of implementation intentions on behavior. Both implementation intentions and situational cueing were related to transfer behavior, but in different ways, with implementation intentions predicting transfer behavior in personal life and situational cueing predicting transfer behavior in the lab. Speculation regarding this relationship has been offered above. Because the theory, and especially the supporting empirical research, in the motivation areas applied in this investigation are so young, the model examined in this study represents an initial, exploratory attempt to pull several disconnected theoretical ideas together into a single cohesive model and intervention. In many ways, it is not surprising that the model was not supported. Additional theoretical and empirical work in the three areas drawn together in this model will no doubt help to uncover a better representation

of how these constructs influence one another and come together in the transfer motivation process.

Intervention as a moderator. The transfer motivation intervention to which participants were exposed changed the relationship between motivation to learn and several of the new motivational constructs investigated. No hypotheses were made concerning differential effectiveness of the intervention, but in fact, some differences in the effects of the intervention occurred based on individuals' motivation to learn. When motivation to learn was high, approach-mastery self-regulatory focus also tended to be high regardless of the intervention to which participants were exposed (Figure 4). At lower levels of motivation to learn, however, participants in the three conditions showed lower levels of approach-mastery self-regulatory focus. In the standard action planning condition, the difference in self-regulatory focus between those high in motivation to learn and those low in motivation to learn was particularly drastic. The reason for this effect is unclear. Motivation to learn and approach-mastery self-regulatory focus are similar constructs. Although they were identified as distinct in the factor analyses, their correlation ($r = .48$) is among the highest between motivational constructs included in this investigation.

It is not surprising that these constructs are highly related, but why would their relationship change across the three conditions? Because self-regulatory focus was only measured after the intervention, it is impossible to conclude that the action or motivation planning exercises lowered approach self-regulatory focus for those low in motivation to learn. However, if it can be assumed that immediately after the training, participants in these two conditions had similar levels of self-regulatory focus to participants in the

control condition receiving no intervention, this may be the case. During the transfer planning exercises, people who had relatively low motivation to learn negotiation strategies may have focused their planning on outcomes, thus shifting their attention even further from learning more about the strategies. Although the mean differences were not significant, the pattern of means is consistent with this explanation. Those low in motivation to learn who completed a traditional action planning exercise that does not provide guidance relative to approach and avoid self-regulatory focus, or to mastery or performance orientation, had the lowest approach-mastery self-regulatory focus. In the experimental motivation planning condition, this effect may have been somewhat mitigated by the explicit attention to helping people set approach goals. People with low motivation to learn in the control condition with no transfer planning had the highest levels of approach-mastery self-regulatory focus, although still moderate. The impact of approach-mastery self-regulatory focus on goal variety was the same across conditions, so whatever the difference in its relationship with motivation to learn, there was no difference in outcomes across the three conditions.

Another unexpected moderating effect is depicted in Figure 5. For those high in motivation to learn, competence valuation was also strong across all three conditions. In contrast, for those low in motivation to learn, competence valuation was strong in the training-only control condition but weak in the two transfer planning conditions. The most plausible explanation for the difference in the relationship between motivation to learn and competence valuation is that the transfer planning interventions reduced competence valuation for individuals low in motivation to learn. Perhaps thinking about using the strategies reminded people who had expressed relatively low motivation to

learn negotiation strategies at the beginning of training of their lack of concern for learning or being good at the skills. Interestingly, competence valuation predicted the number of strategies people used in their negotiations in personal life equally well across the three conditions. Despite the differences in the relationship between motivation to learn and competence valuation, the outcomes were the same for each condition. Although these differences were not hypothesized in this investigation, it is not unusual to find this type of aptitude by treatment interaction in training research.

Lack of relationship between learning and transfer. While learning was not hypothesized to have a large effect on transfer, it was expected that learning would moderate the relationship between transfer behavior and transfer performance. Participants who could more successfully describe the negotiation strategies at the end of training were expected to be able to use the strategies more effectively. However, this was not the case. The learning measure was not significantly related to transfer performance, nor, in follow-up analyses not reported here, was learning significantly related to transfer behavior. Based on the meta-analysis by Colquitt, LePine, and Noe (2000), this finding is not surprising. In their model, declarative knowledge was not significantly related to transfer. Only skill acquisition, which was not measured in this investigation, was related to transfer behavior.

Gender effects. Although no gender effects were hypothesized in this investigation, participant gender did end up playing a significant role in some of the motivational processes studied. Female participants expressed stronger perceived personal relevance for the negotiation training than did male participants. In light of females' lower self-efficacy for negotiation, and stronger sense of avoid self-regulatory

focus, this may indicate that the women participating in the training workshop felt that they had more to gain from negotiation training than the men, who were more confident in their negotiation skills and less worried about using the strategies. Female participants also reported less situational cueing of the strategies, and were rated as attempting fewer strategies during the simulation. Apparently, women had a more difficult time recalling and using the strategies in this situation than did men. There were no differences between male and female participants in the self-reported number of strategies attempted in personal life negotiations. These findings are not particularly shocking given that negotiation is traditionally a masculine rather than feminine activity, although it is somewhat more surprising to find this effect related to principle-based bargaining, which has a more collectivist slant than traditional position-based bargaining.

Not surprisingly given the exploratory nature of this investigation, there were many unanticipated findings. While potential explanations have been offered above, these findings raise many new questions about transfer motivation processes. The next section describes potential directions for future research to answer some of these questions.

Directions for Future Research

Both the expected and unexpected findings in this investigation suggest directions for future research regarding motivational processes in training transfer. Throughout this discussion, speculations and additional questions regarding the findings of this investigation have been detailed; their implied hypotheses will not be repeated here. In addition to those previously discussed, there are several additional possibilities for future research regarding the origins and consequences of perceived personal relevance, the

distinctions between assertive and nonassertive negotiation strategies, and the complex interrelationships among the new motivational constructs with motivation to learn and self-efficacy. The implications of each of these observations from the current study for future research are discussed below.

Effects of Job Responsibilities on Perceived Personal Relevance

In this experiment, post-training perceived personal relevance was positively related to the number of negotiations people reported having during the week following training. It would be interesting to determine the causal direction of this relationship. Was perceived personal relevance simply a consequence of participants' knowledge, prior to the training, of the number of personal negotiations they would be involved in during the week following training? Or, did the training influence perceptions of personal relevance and motivate people to engage in negotiations during the week following training that they otherwise might not have had? Training practitioners have built on both of these notions with ideas such as recommending pre-training meetings with supervisors to discuss reasons for attending training and how the skills are expected to apply to job responsibilities, and encouraging trainees to seek or create opportunities to use their new skills following the training. Future research could provide insight regarding the processes leading to perceptions of personal relevance and the consequences of these perceptions in altering the likelihood that trainees will take advantage of, seek, or create opportunities to use their newly learned skills.

Different Motivational Processes for Different Types of Skills

Following the training and transfer intervention, participants were asked to indicate their goals to use each of the negotiation strategies during the negotiation

simulation and in negotiations in their personal lives over the week between training and the simulation. It was expected that goals for the two transfer settings would form independent factors. This was the case for most of the strategies; however, a third factor reflecting goals to use the three assertive strategies in either setting was also observed unexpectedly. The assertiveness strategies were presented as a distinct unit in the training, and participants seemed to distinguish them from the other strategies in their intentions to apply these strategies in their negotiations. Whether this reflects an effect of the presentation of the training or perceptions of the trainees regarding the strategies themselves, it is clear that trainees' goals to use different categories of trained skills can be distinct. This implies that different transfer processes may come into play for different types of skills.

In this investigation, attempts to transfer the negotiation strategies could not be reliably classified into distinct factors representing assertive versus nonassertive strategies, so these processes could not be fully examined. Future research could investigate differences in motivational processes for distinct sets of trained skills that can be reliably classified based on characteristics such as assertiveness. Another example of a skill characteristic that may have implications for transfer goal setting or other transfer motivation processes is whether skill performance is public or private. Feedback-seeking research has found that people will behave more conservatively in situations where they must perform publicly versus in private situations (Ashford & Northcraft, 1992; Northcraft & Ashford, 1990). Trained skills that must be practiced in public settings (i.e., directly observed by a supervisor, coworkers, or employees) may require greater, or different kinds of, transfer motivation than skills that can be implemented privately.

Applying Advances in Motivational Theory to Transfer Research

This study identified three perspectives from motivational theory previously unapplied to transfer research. From these perspectives, six motivational constructs were shown to have potential for improving our understanding of transfer motivation. The failure of the proposed model to adequately capture the set of relationships among the motivational constructs and transfer behavior and performance indicates that additional research is needed to develop a clearer picture of how each construct might contribute to our understanding of the transfer process and how the constructs interact with each other in particular situations to motivate transfer behavior. This section reviews several opportunities for future research to build on the current investigation.

Measurement. First, development of more valid and reliable measures of the constructs might help to clarify the relationships among them. The measures for all of the newly applied motivational constructs were developed specifically for this investigation. Although the measures used in this investigation were empirically distinct based on the factor analysis, it may be possible to improve them further. Particular attention should be given to ensuring that the measurement items for each construct are conceptually distinct. Theoretical consideration should also be given to the state versus trait nature of these constructs and the timing and source of measurement. In this investigation, the constructs proved impervious to manipulation, but stronger or different manipulations, or training content or conditions, may demonstrate that these motivational constructs have a state component. Theoretical rationale mapping the formation of or importance of these motivational constructs during training may also lead to more precise models regarding the interrelationships of the constructs. While this investigation

proposed mediating relationships suggesting that some of the motivational constructs create others (e.g., perceiving the training as personally relevant was hypothesized to *lead to* valuing competence in the training content), other types of relationships are also possible. Careful consideration of these theoretical issues may lead to timing the measurement of each construct at different points relative to each other and to training programs. Finally, creation of measures that do not involve direct self-reports could also improve research regarding these motivational constructs.

Alternate models. Additional theoretical and empirical work is also needed to better capture the complex relationships among these constructs. The model proposed in this investigation emphasized the new motivational paths along which the transfer motivation intervention was intended to have its impact on transfer behavior and performance. These paths were tested independently, with motivation to learn and self-efficacy controlled in all relevant analyses. The correlation matrix presented in Table 6, however, clearly shows that many of the newly introduced motivational constructs are at least moderately correlated with each other as well as with motivation to learn and self-efficacy. Simple exploratory regressions indicated that there are a number of significant relationships among the motivational constructs beyond those hypothesized in this investigation. The motivational constructs do not fall on distinct paths as proposed here based on the separate bodies of research from which each pair of constructs was derived. Rather, they are interrelated in complex ways reaching across the paths (see Figure 6).

In fact, it is easier to describe the nonsignificant relationships than the significant ones for most of the constructs. Personal relevance and competence valuation were significantly related to all of the other motivational constructs except avoid self-

regulatory focus, goals to use the assertive strategies, and situational cueing. Both approach-mastery and approach-performance self-regulatory focus were significantly related to all of the constructs except situational cueing. Avoid self-regulatory focus was significantly related (negatively) only to self-efficacy and situational cueing. All three types of goal variety were significantly related to both implementation intentions and self-efficacy. Implementation intentions and situational cueing were also related to self-efficacy.

In addition, the motivational constructs impacted various aspects of transfer behavior differently. For instance, in this investigation, self-efficacy and personal relevance both had a strong relationship with the number of negotiations people reported having in their personal lives during the week following training. Motivation to learn could not add to the ability of these constructs to predict the extent to which people chose to engage in negotiations. Apparently, when people felt that negotiation strategies were important to their life goals and were confident about their ability to use the negotiation strategies, they either initiated or participated in more negotiations immediately following the training.

Once people were involved in negotiations, however, other motivational constructs were important for predicting skill use. Competence valuation was most relevant for predicting how many strategies people reported trying to use, while post-training goal variety was most relevant for predicting the variety of strategies people reported trying to use. Wanting to be good at negotiation may have encouraged people to persist with practicing the same strategies several times. Explicitly setting goals to use a number of the strategies may have encouraged people to be broader in their transfer

attempts. In the lab simulation, the experience of situational cueing of particular strategies was able to dominate the effects of gender and self-efficacy on the number and variety of strategies attempted. Clearly, the constructs examined in this investigation were active in different decisions and behaviors in the transfer process.

Examining these three complexities, future research should attempt to untangle the web of connections among the motivational constructs, examine the differential impact of motivational constructs on different aspects of transfer behavior, and elaborate on the connections between particular motivational constructs and the sequence of goals and choices relevant to transfer behavior. A better understanding of specific decisions and behaviors related to training transfer, and when and how various motivational constructs influence transfer, might allow us to develop more targeted interventions to improve training transfer. In an effort to provide some guidance for future investigations based on the current research, a final set of analyses was undertaken to explore ways in which the new motivational constructs proposed in this investigation might, along with motivation to learn and self-efficacy, contribute to our understanding of transfer behavior and performance.

As noted previously, many of the newly introduced motivational constructs were at least moderately correlated with each other as well as with motivation to learn and self-efficacy. Additionally, many of the motivational constructs were significantly correlated with transfer behavior and performance in personal life. Based on these correlations, a series of exploratory models (e.g., alternative mediation paths to the ones proposed in this investigation, moderating relationships) were created and tested. For simplicity, only the

two clearest models connecting the motivational constructs with transfer behavior and performance are reported here.

The first promising model focused on predicting transfer performance through the number of times participants reported using each of the negotiation strategies during negotiations in their personal lives. Skill use, and the resulting negotiation performance, were best predicted with a combination of motivation to learn, self-efficacy, and competence valuation. Figure 7 depicts the model suggested by the current data and presents standardized beta weights supporting the relationships based on the current data. Both motivation to learn and competence valuation predicted the number of strategies participants reported using in their negotiations during the week following training (the reported coefficients reflect partial contributions of motivation to learn and competence valuation, after controlling for number of negotiations as well in both cases). The effect of motivation to learn on attempts to use the negotiation strategies in actual negotiations was moderated by participants' self-efficacy for using the strategies. Implementation intentions were also able to add to predicted use of strategies, but the resulting change in R^2 was so small that it was not worth adding confusion to the model with this construct. Concerning the quality of transfer performance, the quantity of strategies attempted was a significant predictor, and mediated the relationship between competence valuation and transfer performance quality. Motivation to learn also had a significant main effect on transfer performance quality after the quantity of strategies attempted was taken into account (its partial coefficient is reported). Thus, the impact of these motivational constructs clearly cannot be boiled down simply to their impact on trying out more behaviors. Altogether, the constructs included in this model were able to account for

approximately 30% of the variance in self-ratings of transfer performance quality. It is difficult to cleanly evaluate this model with the current data because of the relationship between gender and self-efficacy for using negotiation strategies. Future research should focus on a training task that is not gender-biased to develop a clearer picture of the role of self-efficacy in transfer behavior and performance along with these other constructs. Without this limitation, it will be easier to investigate how the impact of motivation to learn and self-efficacy on transfer behavior and performance might depend on the degree to which trainees personally value achieving competence in the training content.

The second promising model focused on predicting transfer performance through the variety of strategies participants reported using during negotiations in their personal lives. Skill variety and the resulting negotiation performance were best predicted with a combination of motivation to learn, self-efficacy, and approach-mastery self-regulatory focus, working through the variety of transfer goals endorsed. Together these variables predicted about 30% of the variance in transfer performance quality; nearly 40% of variance in transfer goals was accounted for with this model. Figure 8 depicts the model and presents standardized beta weights based on the current data. The effect of motivation to learn on the variety of strategies participants planned to use in actual negotiations was moderated by self-efficacy for using the strategies and approach-mastery self-regulatory focus (standardized coefficients for the main effect of motivation to learn and for the three-way interaction are reported in Figure 8). Variety of transfer goals, in turn, led to quality of transfer performance both directly and mediated through actual variety of transfer behaviors (coefficients for the mediation path and the partial coefficient for the main effect path are reported). Apparently, people who had a variety

of goals followed through with a wider variety of actual transfer behaviors, but their goals had an additional unexplained impact on transfer performance quality.

Implementation intentions were also able to add to predicted variety of strategies, but the resulting change in R^2 was so small that it was not worth adding confusion to the model with this construct. Future research may wish to consider whether implementation intentions are important to such a model, however.

As these alternate models and interrelationships among motivational constructs (see Table 6 and Figure 6) suggest, some of the constructs introduced in this investigation may be redundant in terms of their ability to help us predict transfer behavior. While conceptual distinctions and factor analyses may support the independence of these constructs, researchers should strive to find the most parsimonious sets of motivational constructs to explain training transfer. In the models described above, competence valuation and approach-mastery self-regulatory focus were able to make valuable prediction contributions. These constructs may be a good focus for additional research efforts. The models derived here also suggest that transfer researchers could benefit from examining predictors of different dimensions of transfer behavior, such as quantity and variety, and their contributions to transfer performance quality. Although the quantity and variety of transfer behaviors reported from personal life negotiations were highly correlated in this investigation ($r = .85$), these two dimensions of transfer behavior appear to be best predicted by different sets of antecedents. The motivational processes involved when trainees make frequent attempts to use what they learned in training may be different from the processes involved in trainees' attempts to apply a wide variety of specific skills learned in training. Better understanding of these processes might allow us

to appropriately target the relevant transfer behavior goals for training programs, depending on the extent to which frequency versus variety of transfer applications is important. Future research might also identify and investigate whether additional dimensions of transfer behavior such as situational variety (as opposed to skill variety) are relevant to understanding transfer motivation.

Future research could evaluate these or other alternative models, as well as additional constructs drawn from advances in motivational research (e.g., relating recent work in complex goal structures and multiple, competing goals to transfer behavior), and interventions that might be more successful in influencing transfer motivation than the one proposed here. The current study is only a beginning to the research that is possible concerning the application of motivational theory to training transfer. In addition to the ideas outlined above, future research could also build on this study by addressing the limitations presented in the next section.

Limitations

Several limitations of this investigation constrain the conclusions that can or should be drawn based on the findings. This study attempted to examine complex transfer motivation processes in a laboratory environment. The limitations of this design are fivefold, as the study is restricted by the laboratory setting, the dominant focus on self-report data, the difficulty distinguishing transfer behavior from performance, the undergraduate sample, and the focus on one particular training program.

Laboratory setting. First, the predominantly laboratory setting has some disadvantages relevant to the model being tested in this investigation. Although every attempt was made to make the brief negotiation strategy workshop similar to actual

workplace training sessions, several potentially important elements could not be represented in the laboratory. For instance, when proper needs assessments are conducted in organizations, training programs are directly connected to trainees' jobs in the organization. Participants in this investigation may or may not have a real need for negotiation skills. In real organizations, a similar training program may have been longer in duration to more adequately cover the strategies and provide time for practice and additional examples. Regarding measures of transfer behavior and performance, a cross between the observer-rating method used in the laboratory and the negotiations performed outside the laboratory would have been a better representation of participants' use of the strategies and success in doing so. Finally, other factors that may influence transfer motivation, such as performance-based compensation, supervisor impressions, and coworker skills and expectations, could not be represented in this investigation. Nevertheless, this study provided a preliminary analysis of the transfer motivation model presented, suggesting that the constructs derived from motivation theory can influence transfer behavior and performance. Replication in a field setting would provide evidence concerning whether these motivational processes do influence transfer behavior and performance in the workplace.

Self-ratings. For transfer behavior and performance outside the lab, participants provided self-ratings. This measurement choice carries risks of bias or demand characteristics that make interpretation of results ambiguous. In this investigation, relationships in the lab and real life settings often were not parallel, making interpretation of the findings especially uncertain. For instance, goal variety was related to self-reports of transfer behavior in real life but not to experimenter ratings of transfer behavior in the

simulation. Rather than indicating that a broader variety of post-training transfer goals indeed led to use of a broader variety of negotiation strategies, this relationship might indicate that participants recalled their level of commitment to using each strategy following training and reported that they had indeed used the strategies to that extent. Particularly with respect to transfer behavior and performance, ratings by a trained observer in natural settings would have been preferable to self-ratings. A further complication in this study was the use of newly created measures to test the central constructs. Established measures would have been preferred if available. Unfortunately, however, the research work in these areas has focused on theoretical development unaccompanied by measurement development.

Difficulty distinguishing transfer behavior from transfer performance. Third, this study might have benefited from clearer distinctions between transfer behavior and transfer performance. The degree of success trainees experience with early attempts to use what they learned in training is likely to influence their level of motivation to continue trying to apply the skills. Despite efforts to begin to distinguish attempts to transfer trained skills, which may or may not be successful, from the resulting performance, the salary measure was highly correlated with transfer behavior measures in the laboratory simulation ($r = .76$ for number of attempts, $r = .72$ for variety of attempts). Different types of training tasks or behavioral observations and performance measures that are less closely tied together should be used in future research. Further, transfer motivation could be assessed at several points before, during, and following training to examine how motivation might change because of experiences in those settings. In particular, the relationship between attempts to practice trained skills, and the impact of

the success or failure of those attempts on subsequent transfer motivation and attempts, could be examined if transfer behavior and performance could be more cleanly distinguished.

Undergraduate sample. Fourth, this study sampled undergraduate students to participate in the negotiation strategies workshop. The processes by which undergraduates are accustomed to learning and applying knowledge and skills may differ from those developed by working adults. People taking training for particular jobs might have an easier time identifying ways to apply the training than undergraduates taking a training course outside of the context of any particular job. Further, undergraduates participating in psychological research may have different levels of motivation than adults participating in training programs. Participants had to play the role of a job applicant in the negotiation simulation; undergraduates are not likely to be familiar with salary negotiations. There may be many similarities between how the undergraduate participants in this investigation responded to the training, intervention, and opportunities to apply the negotiation strategies; however, this assumption is not supported by empirical data. A better test of this model and intervention would be to use a sample of people taking a particular training program for a particular job in a realistic setting.

Negotiation training. Finally, focusing on only a single training program clearly limits the generalizability of the findings of this investigation. Negotiation training has particular characteristics that may not apply to other types of training programs. For instance, negotiation skills are cognitive and interpersonal. Thus, the results found in this investigation may not be similar to those found for training programs focusing on more physical or individual skills. In addition, there were several gender effects related to the

negotiation training that may not be similar for other training programs. Caution should be used to avoid overgeneralizing these results until they can be replicated with other types of training programs. An ideal test of whether the intervention and motivational model are impacted by the type of training program would be to incorporate different types of training as a factor in an investigation.

Conclusion

Transfer researchers need to move beyond tried-and-true models of motivation to learn and self-efficacy to search for additional theoretical perspectives that could improve our understanding of transfer processes. The model tested in this investigation was an initial attempt to apply recent advances in motivational theory to advance our understanding of and ability to influence training transfer motivation. Clearly there is more work to be done, particularly with respect to transfer motivation interventions based on these theoretical applications. What is equally clear, however, is that transfer researchers have several previously-ignored theoretical avenues to explore.

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APPENDICES

APPENDIX A

POWER ANALYSIS

Sample Size Requirements (Overall) for Power = .80 (Cohen, 1992)

| Hypothesis | Analysis | N required for $\alpha = .05$ | | |
|--|---|-------------------------------|--------|-------|
| | | Small | Medium | Large |
| <p><u>1a</u>: Transfer behavior will be positively related to transfer performance. The extent to which people attempt to apply the trained skills will be positively related to their transfer performance scores.</p> <p><u>1b</u>: Learning will moderate the relationship between transfer behavior and transfer performance, such that this relationship will be more positive when learning is high than when learning is low.</p> | Regression (2 IVs) | 481 | 67 | 30 |
| <p><u>2</u>: Self-efficacy will be positively related to the frequency and variety of transfer behavior.</p> <p><u>3a</u>: Competence valuation for the training content will be positively related to frequency and variety of transfer behavior.</p> <p><u>3b</u>: Transfer goal variety will be positively related to frequency and variety of transfer behavior.</p> <p><u>3c</u>: Situational cueing of transfer skills will be positively related to frequency and variety of transfer behavior.</p> | Regression (5 IVs) | 645 | 91 | 42 |
| <u>4</u> : Perceived personal relevance of trained skills will be positively related to competence valuation. | Regression (2 IVs) | 481 | 67 | 30 |
| <u>5</u> : Self-regulatory focus will significantly influence goal variety. An approach focus will be negatively related to goal variety. An avoid focus will be positively related to goal variety. | Regression (3 IVs) | 547 | 76 | 34 |
| <u>6</u> : Intentions to implement particular trained skills in particular situations will be positively related to situational cueing. | Regression (2 IVs) | 481 | 67 | 30 |
| <u>7</u> : People who participate in the experimental transfer motivation intervention, which incorporates forming connections to personal higher-order goals, will report higher perceived personal relevance of the training content than those who participate in a typical action planning intervention or receive training without a transfer intervention. | Regression (3 IVs) | 547 | 76 | 34 |
| | ANOVA (3 groups) (Total sample size) | 966 | 156 | 63 |

| Hypothesis | Analysis | N required for $\alpha = .05$ | | |
|---|---|---|---------------|--------------|
| | | Small | Medium | Large |
| <p>8a: People who participate in the experimental transfer motivation intervention, which incorporates setting approach goals and bounding avoid goals with approach goals, will report higher approach self-regulatory focus and lower avoid self-regulatory focus than those who participate in a typical action planning intervention or receive training without a transfer intervention.</p> <p>8b: Because standard action planning interventions incorporate approach motivation to some degree, people who participate in standard action planning will report higher approach self-regulatory focus and lower avoid self-regulatory focus than those who receive training without a transfer intervention.</p> | Regression (3 IVs) | 547 | 76 | 34 |
| | ANOVA (3 groups) (Total sample size) | 966 | 156 | 63 |
| <p>9: People who participate in the experimental transfer motivation intervention, which incorporates connecting behavioral strategies to particular situations, will report stronger implementation intentions than those who participate in a typical action planning intervention or receive training without a transfer intervention.</p> | Regression (3 IVs) | 547 | 76 | 34 |
| | ANOVA (3 groups) (Total sample size) | 966 | 156 | 63 |
| <p>10a: The experimental transfer motivation intervention will increase the frequency and variety of transfer attempts through perceived personal relevance.</p> <p>10b: The experimental transfer motivation intervention will increase the frequency and variety of transfer attempts through self-regulatory focus.</p> <p>10c: The experimental transfer motivation intervention will increase the frequency and variety of transfer attempts through implementation intentions.</p> | Regressions (maximum: 8 IVs) | 757 | 107 | 50 |
| <p>11a: Perceived personal relevance will be positively related to the frequency and variety of transfer attempts through competence valuation.</p> <p>11b: Approach self-regulatory focus will be positively related to the frequency and variety of transfer attempts through goal variety.</p> <p>11c: Implementation intentions will be positively related to the frequency and variety of transfer attempts through situational cueing.</p> | Regressions (maximum: 8 IVs) | 757 | 107 | 50 |
| <p>CONCLUSION: Based on the sample size requirements to achieve 80% power for each test at $\alpha = .05$, Hypotheses 7-9 demand the largest sample size.</p> | | 966 | 156 | 63 |

APPENDIX B

Participant Number: _____

INFORMED CONSENT

The purpose of this experiment is to investigate how people respond to a training program (similar to those given in work settings) and how well people are able to use what they learn in the training program.

The total time required for this experiment is approximately 4 hours over two nonconsecutive days. This time will include several hours of training and practice in negotiation strategies. We will ask you to fill out various questionnaires during the study regarding your perceptions, feelings, and understanding of the material being presented. The final stage of the study involves participating in a negotiation simulation in a one-on-one format. At the end of the first session, we will arrange a time for the simulation session (approximately one week after your first session).

All information you provide during the experiment is confidential. Your privacy will be protected to the maximum extent allowable by law. Only a participant number will identify you and only the experimenters will have access to your individual responses. Your responses will be grouped with those of many others in any presentations of this research. There are no foreseeable risks associated with your participation in this study.

To receive credit for your participation, you must complete both the negotiation training workshop (session one) and the negotiation simulation (session two). You are free to withdraw your consent and discontinue participation in this study at any time without penalty. You can be removed from the study for disruptive behavior. If you are removed from the study, you will not receive credit for your participation.

If you have any questions or concerns about this study, please contact the investigator, Karen Milner, at 355-2171 or milnerka@msu.edu. If you have any questions about participants' rights as human subjects of research please contact the Chair of the University Committee on Research Involving Human Subjects, Dr. Ashir Kumar, M.D., at 355-2180. Please sign below if you agree to participate in this investigation.

I freely give consent to participate in this investigation.

Signature

Date

Print Your Name

APPENDIX C

EXPERIMENT INTRODUCTION SCRIPT

General Welcome

[Identical for all conditions.]

Hello. My name is Karen Milner. I am working on my doctorate in Industrial and Organizational Psychology. The research you are participating in today and next week is my dissertation work, and I want to thank you for agreeing to take part in it.

I work with many different kinds of organizations – ranging from the Lansing Police Department to Michigan State Government to a small company in Jackson that manufactures precision steel tractor parts to a small community bank with a handful of branch offices. One of the things I am most interested in is helping companies provide training and development opportunities for their employees that really help people in their jobs. That means providing high-quality training that helps people not only gain new skills, but also be able to use them after the training is over.

It is similar to how you might think about your college courses. You are learning lots of stuff in your classes, right? And you've already heard stories about how much of it you are likely to use in the jobs you will have, right? The same thing can happen in training programs at work – people may learn lots of stuff, but not learn it well enough or in the right ways to make it useful to them in their day-to-day work (or sometimes it wasn't the right stuff to begin with!). Part of my work is to improve the way companies approach training and helping people get ready to use their skills in their work. The study you have agreed to participate in today tests some of my ideas about how to do that.

Pre-Training Introduction

[Identical for all conditions.]

Throughout the study, I will ask you to tell me about yourself and your experiences learning and using the negotiation skills that I will present. Please respond honestly – all of your responses are confidential, and the things you tell me about what this is like for you will help me do a better job of designing training that will help people learn skills they need to do their jobs well.

Before we begin the negotiation training, there are a few questions I would like to ask you to answer about yourself. You will read the questions from your participant workbook and respond by filling in the appropriate bubble on your response form. Please read the instructions carefully, make sure you know what response each bubble represents so you don't accidentally fill them in backwards, and keep track of what item number you are on so your responses are entered in the right place. If you have any

questions about what an item means or how the response sheet works, please raise your hand and I will come over and help you.

Please open your workbook to the first section and respond to items 1 through 11. When everyone is finished, we will begin the training.

Negotiation Training Introduction

[Identical for all conditions.]

The training program you will participate in today has been designed to help you improve your negotiation skills. It will cover a variety of strategies that are useful for one-on-one negotiations. Although there are dozens of potential negotiation strategies, including unethical tricks and the common threat, we will focus on above-board strategies you can use to be an effective negotiator.

The strategies included in this training program have been drawn from two major areas: principled bargaining and assertiveness. I don't take credit for developing these strategies. Principled bargaining concepts were developed at Harvard and tested on Harvard MBA students. Assertiveness is a popular area in social psychological research and corporate training, and these concepts are also well-tested. Although we will be focusing on strategies for one-on-one negotiations, these perspectives and strategies are also increasingly popular in many business relationships where negotiation is almost a daily reality, such as in collective bargaining (where employee unions negotiate contracts with organizations) and arbitration (where a third party helps people or groups settle apparently irreconcilable differences).

The training you will participate in today will be fast-paced. This program has been condensed from a much longer course in order to cover the strategies effectively in a minimum amount of time. People have paid anywhere from \$500 to \$1000 for the full-length version of such courses. We will cover four sets of negotiation strategies during the workshop today, and you will have a chance to practice the strategies as we go through them. At times, you will be asked to practice the strategies with the group; other times you will complete individual written exercises. During all of the practice opportunities, please focus on learning the strategies as well as you can so you will be able to use them after the training. Don't worry about making mistakes – your mistakes may even help you and others learn how to use the strategies better.

Transfer Planning Introduction

[Given prior to training. Slightly tailored for the control condition receiving training only, as shown below.]

[Control condition with training only.] Following the training today, I will ask you to respond to some items to let me know about your experiences participating in the training today. Then we will arrange a time for you to return in approximately one week to participate in the negotiation simulation portion of the study, and you will be dismissed.

[Control condition with action planning and experimental condition with transfer planning.] Following the training today, I will guide you through an action planning exercise. This exercise is specifically designed to help you use the negotiation strategies you will learn today. You will receive a copy of your action plan to take home. After the action plans are completed, I will ask you to respond to some items to let me know about your experiences participating in the training today. When you have responded to those items, we will arrange a time for you to return in approximately one week to participate in the negotiation simulation portion of the study, and you will be dismissed.

APPENDIX D

GET WHAT YOU WANT – NEGOTIATION STRATEGIES

Odors from decaying food wafting through the air when the door is opened, colorful mold growing between a wet gym uniform and the damp carpet underneath, and the complete supply of bath towels scattered throughout the bedroom can become wonderful opportunities to help your teenager learn once again that the art of living in a community requires compromise, negotiation, and consensus.

Barbara Coloroso,
Parent educator and author.
Kids Are Worth It (1994) Chapter 9.

You may not realize it, but negotiation is something you do every day. People differ, and we use negotiation to settle our differences and come to agreement. Negotiation is a fact of life—it is how you get what you want from others, and how others get what they want from you. When each side has some interests that are shared and others that are opposed, negotiation finds the balance.

Just because we use negotiation frequently doesn't mean it's easy to do well, though. Many of the negotiation strategies we learn leave us dissatisfied and exhausted, and damage our relationships with others. We tend to see negotiation as being about "getting our way" versus "giving in." We know the outcome we want, and we argue for it until we feel that the other side is stronger, and then they win and we lose.

The Position Approach to Negotiation

The approach to negotiation described above is called the **Position Approach**. It is the approach most of us learned in childhood and have been practicing ever since. It begins when each side expresses the outcome we would like (our position). We go through several rounds of give and take with our opponent, reluctantly granting concessions from our initial positions and trying to trick our opponent into backing down, until finally we end up somewhere in the middle.

In the position approach, negotiation is a game. Both sides start with exaggerated positions, and know that the other side is doing that too. Neither side believes the other side is serious, and each side selectively chooses information that supports their own position, ignoring information that supports the other side or considering it invalid. In the end, the person that is most unreasonable will usually get the better split. Neither side is pleased with the negotiated decision, and the side that has lost more feels particularly bitter.

The Issue Approach to Negotiation

There is an alternative to the position approach to negotiation that is almost always more successful in both the short and long term. It is called the issue approach. The **Issue Approach** involves focusing on interests rather than outcomes, inventing win-win solutions, using objective criteria rather than force, and separating the people from the problem being negotiated.

In the issue approach, negotiation becomes an information exchange. Each side expresses the underlying issues that are important to them, but remains flexible about the exact means for satisfying those issues. Discussion and creativity lead to ideas about how to best satisfy the issues for each side. Wherever possible, mutual gains are sought; where interests truly conflict, fair standards are used based on the merits of the issues. In the end, both sides win, suffering losses only where their demands were objectively unreasonable.

The training you will receive today is based on the issue approach to negotiation. The issue approach was developed by Roger Fisher and William Ury, director and co-founder of the Harvard Negotiation Project, which was undertaken to answer the question, “What is the best way for people to deal with their differences?” After years of research, Fisher & Ury answered that question with issue-based negotiation, and the skills you will learn today.

Four Negotiation Strengths

There are four basic negotiation strengths we are going to cover. The four strengths are listed on your review page. I am going to describe specific strategies that make up each of the strengths, and you will have a chance to practice them during the workshop today. Then you will be able to try them out in your own life, as well as when you return for Part 2 of this experiment.

Strength #1 – Negotiation Attitude

We will start with the most fundamental negotiation strength – your Negotiation Attitude.

Many things are going on all at once during a negotiation. Focusing on the details of what your opponent is offering and requesting, what you are going to offer and request, and what strategies you will use to get what you want, you may forget one of the most important aspects of negotiation—how you come across to your opponent.

There are two parts of your Negotiation Attitude that are critical to your success: Confidence and Contained Enthusiasm. Let's look at them one at a time.

Confidence

Confidence is critical to successful negotiation. If you don't appear confident about your issues, how will you expect the other person to take them seriously? They will try to get you to give up your desires instead of trying to accommodate them. Without being brutish, you have to make it very clear that your issues are important to you and that the only outcomes that will be acceptable to you will satisfy your issues in some way.

What are some behaviors that demonstrate confidence?

- Steady eye contact
 - No laser eyes
 - No evasive space-staring
 - No looking over their shoulder
- Strong, still posture
 - No tension
 - No fidgeting
 - No trying to sink into your chair
- Calm, determined tone of voice
 - No nervous trembling
 - No meekness and whispering
- Direct, clear words
 - No "Could you possibly...?" "Maybe..." "About..."
 - State exactly what you want them to do or consider

By demonstrating confidence, you make it clear to your opponent that your issues need to be taken seriously. Without having to bully or threaten, you convey that your requests are reasonable and that you expect them to be included in whatever agreement is reached.

Contained Enthusiasm

The second important part of your Negotiation Attitude is Contained Enthusiasm. When someone makes you an offer that could meet your interests, it is reasonable to be enthusiastic, and to show it. BUT you need to let your opponent know that they are hitting on something that works for you without throwing away the opportunity for further negotiation by sounding too excited.

To keep the negotiation rolling and maintain leverage, it is appropriate to express some pleasant enthusiasm but to keep it contained. For example:

- Let's say that you have just told me you want to buy my car.
 - What would you think if my response was, "I'm so glad you like it! You're the only person who's come to see it!"
 - What if instead, I responded with, "Yeah, it's a great car. I'm glad you have an interest in it."

Exercise

Now you try it. I will make you an offer. On your review sheet, write down a BAD example of how you might respond.

- "I would like to hold this job for you until after you graduate from MSU. I will pay you \$200,000 per year with full benefits and 6 weeks of vacation."
 - Write down an incorrect way to accept my offer. (e.g., "Wow, that sounds great! When can I start?")
 - Now write down a response that would show Contained Enthusiasm. (e.g., "I'm excited about getting started in the industry. I appreciate your faith in me.")
 - Now find a partner and SHARE your responses with each other.
 - Ask for best bad and best good example from each pair.

By showing Contained Enthusiasm, you make it clear to your opponent that the discussion is on a track that you find interesting, but also that you still have additional interests that need to be satisfied. You make it clear that you do not believe a final solution has been reached yet, and that you are not willing to just jump at the offer they've given you.

Be prepared by knowing what would really excite you, and focus on containing your enthusiasm during the negotiation. After you get what you want, you can go home and dance a little jig about your success in achieving it.

What kind of negotiation attitude should you portray? The key is to be right in the middle. You need to be firm about the issues that are important to you—not aggressive and not wishy-washy. You also need to show a "just right" level of excitement about how the negotiation is going—not appear to be too satisfied too soon, and not appear to be too aloof and disinterested.

Strength #2 – Research & Objectivity

The second key strength in negotiating involves knowing what you are talking about and being able to show that you're not the only one who sees it this way.

This strength can help you in two ways:

1. You can use research and objectivity to give your own issues and proposed outcomes more weight in the negotiation—to show that what you are offering or asking for is reasonable.
2. You can use research and objectivity to demonstrate that your opponent's position and demands are unreasonable anchors.

Remember that one of the biggest downfalls of position-based negotiation is that often the most unreasonable person wins. They are often able to do this by getting their opponent (you) to negotiate based on an unreasonable anchor.

What is an anchor? An anchor is a psychological trick negotiators use to try to take advantage of opponents who don't know what they're talking about. For instance, if I'm selling a piece of furniture and you ask me how much I want for it, I might say "\$100." *I* may know the piece is only worth \$50, but I want to try to get as much as I can for it, and *you* might not know it's only worth \$50. So you will start negotiating me down from \$100, and you might be happy if I drop my price to \$70! But you would be paying way too much for the piece of furniture.

Research and Objectivity allows you to show your opponent that you know how unreasonable they are being and that you know better than to let them pressure you. Stating objective standards shows that you know what you are talking about and that you are trying to negotiate a fair outcome.

Using this strength includes two parts: Knowing the Ballpark and Stating the Contrast.

Know the Ballpark

The key to using this strength is that you have to do your homework. You have to do some research and find information to use as a standard. Make sure you are knowledgeable about similar negotiations and their outcomes.

- Know how what you are offering and asking stacks up against others, and know the ballpark you should expect your opponent to be in.
- Make sure you obtain your information from good sources, so your opponent can't just dismiss it as invalid.
- Compare apples to apples.

State the Contrast

Once you Know the Ballpark, this strength is easy to use. You need to do three things:

1. State the contrast
2. State your source
3. Point out similarities that make it a good comparison

For instance:

- “I have looked up all of the house sales in this neighborhood over the past two years in the town’s public records. Other houses of similar age and size in this neighborhood have sold for \$10K less.”
- “The Kelly Blue Book value of the car is \$1,000 less than what you are asking for this particular vehicle and condition.”
- “Mom, a 2.5 in Math 103 is good. It’s above the average for the class, which our professor gave us for the past five years.”
- “At the student book stores, used texts are typically at least 50% off, and they don’t have this much writing in them.”

Exercise

Now you try it. Suppose you are trying to buy a used computer from a friend of yours. The computer is several years old, but your friend is only reducing the price a little bit. When you suggested a much lower price, he said, “You’re nuts! This is a great computer! I’ve never had any problems with it or anything!” You suggest that you talk more about it later.

How might you be able to use Research and Objectivity to show your friend that you’re not being unreasonable? What information would you need to use as a contrast? Write down what you would say to your friend the next time you talk with him about the computer.

Now share your reply with your partner.

Ask for best examples from each pair.

Strength #3: Focus on Interests

The heart of negotiation is finding an agreement that meets BOTH your interests and your opponents' interests. The best agreements result when you can focus on interests and discuss various ways to meet them, instead of focusing on positions and outcomes.

Focusing on Interests includes six strategies. We'll go through them one at a time.

Issues before Resolutions

Most people negotiate using the Position Approach, because that is what they are used to. Your opponent will jump directly to his or her offer and expect you to state your counter-offer right away.

Also, there are many times in negotiations when one side might wish to bring the matter to a rapid conclusion to reduce the chances that they will have to make concessions.

For instance, if you are coming to buy my car, and I am asking \$7,000 for it, we both pretty much know that I am not later going to raise my asking price UP to \$9,000. I'm only going to be negotiated DOWN from my asking price. Therefore, I will try to sell you the car quickly to prevent you from being able to talk the price down. If I can get you to go directly to the price, I don't have to hear your arguments, but can have you adjust from my anchor right now.

In a negotiation, you may need to suggest that the two sides place Issues before Resolutions in order to have an opportunity to find out your opponent's interests and to voice your own. This technique involves suggesting that there are other things to discuss before you get around to discussing the positions. The purpose is to keep the negotiation open. With the negotiation open, both sides can express and clarify their interests, look for alternative ways of meeting them, and determine priorities.

To use this technique, you simply explicitly say:

- “There are some issues I'd like to consider before we discuss the final salary.”
- “Before we get to a specific arrangement, there are some things I'd like to talk about.”

This technique is also helpful when your opponent tries to get you to state a position (e.g., what you are willing to pay, or your salary range). Don't answer them!! Instead, steer the negotiation toward issues instead of positions. Say that you aren't even willing to talk about the final solution yet. Then follow up with the next strategy...

Target Opponent's Interests

Think about this for a second -- When is your opponent going to be most inclined to meet your interests? (When you are meeting their interests.)

We often forget this simple leverage point during negotiations. In the position approach, we learn that we have to focus on our OWN interests – if WE don't, no one else will. But you really stand to gain more when you emphasize your opponent's interests and state how you can meet them.

You have to take your opponent's point of view. What are THEY trying to get out of this? What are THEIR priorities? "I want you to lower the price because I am already in debt" is not speaking with their interests in mind. You have to give THEM a reason to want to lower the price.

In most cases, your opponent's interests will not be clear. Your opponent may not volunteer information about the reasons for their position, offers, and demands. Instead, they may just say,

"We're prepared to offer you \$40,000 as a starting salary, plus medical and dental insurance, and you would have to start work in two weeks."

It is a mistake to assume that you understand everything your opponent is interested in. In most negotiations, people have many different interests underlying the outcomes they want. There may be things your opponent is contending with that you are not taking into account. What are some interests that may be underneath the offer I just gave?

Discovering Opponent's Interests

Using this strategy requires two things: (1) you must discover your opponent's interests, and (2) you must directly appeal to their interests. First, you can discover their interests by:

- **Asking them directly.** Use language and a tone that seeks understanding rather than justification to avoid making them defensive. "What is your concern in asking for that?" "What things make for a good employee here?"
- **Asking "Why not?"** Why *don't* they wish to meet your interests? From their point of view, what are the pros and cons associated with meeting your interests?

The Why Not side can be just as helpful as asking them what their interests are. If you can discover what is making your opponent say NO, you can understand their priorities (e.g., looking for someone right away and therefore willing to pay higher vs. keeping salary lower is more important but they could wait for you to finish school). If you feel you are at a stalemate with your opponent, you may be able to discover important interests that have not been included in the discussion that provide new opportunities for exchanges and agreement.

Stating How You Can Meet Their Interests

Then, make direct appeals to their interests. Force them to consider alternatives besides the specific outcomes they have in mind for satisfying their interests. Clearly describe to them how what you have to offer meets their interests (NOT how they meet yours!). Give them reasons to say “Yes!”

- “I understand that a big concern for you is whether a new college grad like myself has enough experience to be able to do this job. I have done internships for the past two years and have made it a point to interview people about their job successes and failures so that I could learn through their experiences in addition to my own.”

Exercise

You and your best friend have decided to get an apartment together after graduation. You have both landed jobs in the same city. You want to live in the city, but your friend wants to live outside of the city. Your friend has voiced the following arguments. What do you think are the underlying interests behind what your friend’s arguments? What interests would you appeal to in trying to convince him or her to live in the city?

Friend’s Stated Arguments

- Cities are noisy
- Crime rates in the city are higher
- Family and friends live in the suburbs
- Car insurance is too expensive in the city
- I know a nice area only 15 miles outside of the city
- The same money buys larger apartments in the suburbs

Group Discussion

Let’s work all together this time, but I want to hear from at least one member of each pair for these questions.

1. What are the apparent interests behind your best friend’s arguments?
2. How could you discover or confirm your assumptions about his or her interests?
3. How would you appeal to your friend’s interests to convince him or her to live in the city?

If...Then

The third strategy that focuses on interests makes the interests of one person contingent on the interests of the other person. You connect the interests by saying that ***IF*** one of them happens, ***THEN*** the other will happen. If...Then options look out for the interests of both sides by tying important outcomes together: “IF this happens (my interest), THEN that happens (your interest).”

If...Then options are often used as protection. One side may be concerned about the ability of the other side to live up to an obligation. Thus, a benefit desired by the doubted opponent is made dependent on the fulfillment of the obligation. You can use this strategy when you have doubts about your opponent’s ability to follow through, or to reassure an opponent who has doubts in your ability to follow through on something you know you can do.

For instance:

- “IF a mechanic checks out the car and says it’s OK, THEN I’ll buy it.”
- “IF the house is completed by March, THEN the builder gets a bonus.”
- “How about we agree to a review of my performance in six months and IF it is acceptable THEN my salary increases by \$5,000?”

Unique Features

Another strategy focused on interests involves pointing out the Unique Features included in what you are offering that appeal to your opponent. This involves suggesting that something you are offering your opponent can't be found elsewhere and can't be removed or held back. It is a perk, or extra, that is worth compensation. It might be beyond normal interests or expectations, but it is still appealing or meets interests your opponent may not have considered.

There are three keys to using the Unique Features strategy:

1. Clearly state what the feature is.
2. Describe why you believe the feature is worth compensation according to your opponent's interests.
3. State what level of compensation you believe the feature is worth.

For instance:

- "This is a numbered painting in a limited series, which makes it more valuable to you in terms of its uniqueness and resale value. The uniqueness and value are worth \$300 on top of the value of the painting itself."
- "Our company is the only one in the state licensed to offer you this product, saving you import taxes. Our prices may seem higher than out-of-state competitors, but since you pay no import taxes with us, we are actually less costly for you."

Seek & Grant Compensatory Offers

In any negotiation, we usually want more than one thing at the same time. Any position we take in a negotiation reflects a number of underlying interests, which we try to satisfy as best we can. Our opponent does the same thing.

Because of the numerous interests involved on both sides of the negotiation, you can often attempt to balance a shortcoming in one area with gains in another. Compensatory Offers are compromises that make up for a lack in one area by providing more in another area that might have lower priority but is still important.

If your opponent has pointed out a weakness of yours, you can offer to compensate by offering something else your opponent values. For instance:

- Keep the price of the watch the same, but add a better watchband.
- Offer to make up for weak technical skills by applying your strengths as team leader of a special project.

You can also try to get your opponent to compensate for his or her weaknesses by offering you something else that meets another interest of yours. If they have no control, or won't budge but you're still not satisfied, you try to get them to compensate you in some area they *do* have control over, or that they are willing to concede on, or that is outside the main area of the negotiation.

For example:

- When your opponent has gone as far as you think he or she will in one area, but might be willing to give more in another area of interest to you.
- *Take the salary being offered, but add another week of vacation time.*
- When your opponent doesn't have control over some aspects of the situation, but does have control over others.
- *"There is no apartment with more closet space, but I do have a storage space in the basement that is not being used which you could have."*
- When one side can meet important interests of the other side at little cost to themselves.
- *Keep the price of the car the same, but arrange better financing to save the buyer money.*

Role Play Exercise

For this exercise, you will be working with a partner on a negotiation role play. Please pair up with someone near you. If we have an odd number, form one team of three and have two people play the employer position together.

Introduce yourself and decide who would like to act as the employer and who would like to be the employee.

→ Hand out role descriptions

You will have five minutes to prepare for the role play, and then ten minutes to act it out with each other. When the time is up, we will talk about strategies people used and how effective they seemed to be.

Role 1: Employer

You have five minutes to prepare for the negotiation. Take some time to consider the interests of both your side and the job candidate's side in the negotiation. Review the negotiation strategies we've covered so far and write some notes about how you can practice each of them in the negotiation. Feel free to be creative. Then, negotiate with your opponent to strike a deal!!

Who you are – A hiring manager looking for a good employee

Your Situation:

- You work for a big company with plenty of resources
- Your company's name carries prestige – people want to work for you
- You have a big competitor, Tyson Corporation, you're always competing with
- You need the person you hire to start right away – in one week
- Ideally, you would like to pay \$50,000, which is at the low end of the market
- You are willing and authorized to go up to \$65,000
- Your company offers a standard benefits package, no flexibility (health and dental insurance, 2 weeks of vacation, 401K matching)
- The job is in a big city, and you can pay moving costs up to \$2,000

Candidate's Strengths:

- You think the candidate has very good skills
- You're impressed with the candidate's technical knowledge
- It's hard to find someone with the computer skills this candidate has
- The candidate is a good student

Candidate's Weaknesses:

- You have concerns about the candidate's experience
- The candidate has very little project management experience, and will be expected to lead project teams
- You think you can get others who are fresh out of school cheaper
- The candidate will need training

Think About:

- *Your interests*
- *Your goals*
- *How will you use your negotiation strategies to strike a deal with this candidate that you can feel comfortable with?*

STARTING OFFER = \$45,000

Role 2: Employee

You have five minutes to prepare for the negotiation. Take some time to consider the interests of both your side and the company's side in the negotiation. Review the negotiation strategies we've covered so far and write some notes about how you can practice each of them in the negotiation. Feel free to be creative. Then, negotiate with your opponent to strike a deal!!

Who you are – A person fresh out of college and looking for a job!

Your Situation:

- This company is a big one, and their name carries prestige
- People leaving this company typically get big salaries elsewhere
- The company has a big competitor, Tyson Corporation, and you are looking at them too
- You have student loans to pay off – about \$15,000
- The market appears to show the range from \$40,000 to \$80,000, average \$55,000
- Student insurance runs out when you graduate in two weeks
- Working for this company will require you to move to a new city with a high cost of living

Your Strengths:

- You think you have very good skills
- Relative to most people, you have strong technical knowledge
- You have much better computer skills than most people
- You have won awards for your computer programming
- You are a very good student

Your Weaknesses:

- You don't have much work experience
- You don't have any other offers yet

Think About:

- *Your interests*
- *Your goals*
- *How will you use your negotiation strategies to strike a deal with this employer that you can feel comfortable with?*

Negotiation Jujitsu

Sometimes your opponent will point out, or even attack, you or your position or interests. They'll point out your weaknesses. Your temptation might be to dig in and defend yourself or to counterattack. If they push you, you might be tempted to push back.

However, this may lead you to fall back into position-based bargaining. They lock into their position and attack, and you defend yourself and get locked into your position.

When your opponent forcefully states his or her position or attacks you or your position and interests, instead of pushing back, simply step aside. This is called Negotiation Jujitsu. You simply sidestep their attack and deflect it on the problem instead of yourself. Rather than getting defensive, you agree with their point but reframe the attack into something positive. Wow!

The keys to using this strategy well are to:

1. Agree with the criticism. Don't try to downplay it or justify it.
2. Turn the exact same thing into a positive from their point of view (glass half full).

Potential Client: Come on, your company is puny! You've never handled an account this size! Your company could go under and we'd be stuck.

Advertising Guy: It is true that you would be our biggest client. However, we have a great deal of experience with other good-sized accounts. Plus, our size ensures that you'll know who you're dealing with, and you'll be our top priority. And by signing with us, you'd be helping to ensure our continued security.

Potential Buyer: This car is old and has 30,000 miles on it! You must be stupid thinking you can get that kind of money for it.

Seller: Yes, the car does have some years and some miles on it, and I can see that it would be a concern. But, when you consider the fact that it is five years old and has only 30,000 miles on it, you can see that's only 6,000 miles per year. Less than most used cars.

Father: I'm not going to give you any money to buy a car. At your age, you should be able to buy one yourself!

Grown Kid: Yes, Dad, I agree that most 23-year-olds are monetarily independent, but most of them are not as dedicated to school and volunteering as I am.

Notice in each example that the person does not disagree with the point being made. In fact, they agree with the attack but then reframe it into a strength.

When you use this technique, don't just make excuses. "You're right, but I'm just a student" isn't good enough. You have to find a strength!

Negotiation Jujitsu Exercise

The first thing you need to get used to is not getting upset when you're attacked. Realize that in a negotiation, your opponent just wants to get you off balance. I'm going to throw some attacks at you and I want you to just practice calmly agreeing with them and pointing out an associated strength that will appeal to my interests.

- “You don't know anything about negotiation!”

Now practice turning attacks into strengths. Imagine that you work for an airline. Your company is in trouble, and you're trying to merge with another airline to keep it afloat. You and a committee had an emergency meeting and sketched out some initial ideas, and you are presenting them to the Board of Directors of the airline you are interested in merging with. Here are some potential criticisms from them. How could you use Negotiation Jujitsu to turn these comments around?

(Have them write responses to each one. Then share with a partner.)

- “Your proposal is totally unclear about the details.”
- “Your company is another one of those ‘employee-owned’ failures. No wonder you're looking for a merger.”
- “Don't you think you are wasting your time and ours coming here so early in the process?”
- “Your proposal overlooks the fact that despite your new equipment, you have a horrible ‘on time’ record. We pride ourselves in our time record. Maybe this is a bad fit.”

Notice that it will be easier to use Negotiation Jujitsu if you can anticipate the criticisms ahead of time and be prepared to respond to them. Preparation is critical in negotiation!

<< 5 Minute Break >>

Strength #4: React with Assertiveness

Be Silent

Let's pretend that you are trying to buy my car. We both know it's worth about \$10,000, but you decide to come in with a low ball offer. You decide to try \$4,000. Go ahead and offer me \$4,000 for the car.

What did that response convey?

- “Come on, that's not a serious offer. That's not even worth responding to.”

Maintaining Silence is a technique that involves responding to an inadequate offer or answer to a question by simply saying nothing. The length of the silence should be long enough to make the other person uncomfortable. A good rule of thumb is to count 10 seconds and just keep looking at your opponent. Ideally, your opponent should be the one to break the silence.

Silence is a powerful tool in communication. Although we don't usually notice a brief silence, longer silences at important times can be very useful. Most people get uncomfortable with silence, especially if they have just said something that they expect you to respond to. They will usually feel the need to explain further, or even acknowledge that their offer or answer was poor. The silence is a stalemate, and they want to get things going again.

To use silence:

- If your opponent makes an offer that is unreasonable, just stay quiet, maintain some eye contact (you don't have to stare them down), and use facial expressions and body language that subtly convey that you don't think the offer is adequate.
- If your opponent provides an insufficient answer to a question, remain silent. Keep looking at them as if you expect them to say more.
- Be committed. Silence is not effective unless you hang in there and pressure your opponent to respond.

Broken Record

One assertiveness guru likes to say, “You lose because you give up too easily.” On many issues, people only have so many “No”s in them. By being persistent and not giving up after the first one, you have a much better chance for success. We’re trained to be “nice” and try to please people. So, most of us feel that we can’t just ignore the “No” and keep demanding what we want if someone doesn’t appear to be interested in helping us. But the reality is – you CAN ignore the “No” and continue to ask for what you want.

It is important to be persistent and keep saying the same thing over and over again – like a Broken Record. On top of that, you need to stay calm. Don’t get irritated, angry; or loud. Just keep repeating what you want calmly but firmly. So, there are two steps:

- (1) Tell your opponent what you want him or her to do. Be clear and succinct. Many people skip this step. For example, when we complain about a product or service, we have a remedy in mind (“This food was horrible. I want them to take this off the bill.”) But, when we complain, we end up just telling them what was wrong, without clearly stating what we want them to do (“This food was horrible.”). Then they might just offer you another one. You should say, “I would like this taken off the bill, please.”
- (2) Repeat your request calmly but firmly. Don’t get caught up in too much talking when someone tells you “why” or gives you a “reason” for not doing what you want. Don’t become irate and unreasonable – you will just give them reasons to justify ignoring you. Just repeat your request.

The Broken Record technique is particularly useful when your opponent does not appear to be listening or is not responding to your requests or interests.

Example: True story. I picked up a pizza, and they accidentally gave me a supreme loaded with stuff I don’t like. And charged me for it. It seemed expensive, but I didn’t think much of it at the time. When I got home, I realized what had happened, so I drove back, explained what had happened, and asked for the correct pizza and my money back. The woman said “No.” It went like this:

Customer: I’d like my money back please. It was \$5 extra that I was charged.
Employee: We can give you the pizza, but I’m not sure about the money.
Customer: I’d like my \$5 please.
Employee: Well, how about some more breadsticks?
Customer: I don’t need any more food. I’d like my \$5.
Employee: I can’t do that. Only my manager can.
Customer: I understand. Please get the manager so I can get my \$5 back.
Manager: (After explanation) But, you see, you don’t have a receipt.
Customer: You didn’t give me a receipt, but I’ve returned the wrong pizza to you, and I’d like my \$5
Manager: Well, we throw the receipts away (points to a big bucket full). Without a receipt, I can’t refund any money. How about some breadsticks or salad, or a large drink?
Customer: No, I have plenty of food. I understand that it’s a problem, but I didn’t throw the receipt away, you did. So I’d like my \$5 back.
Manager: Look, ma’am, people behind you are waiting.
Customer: Yes, I’m waiting too. I understand that you want to serve them, but I want my \$5 back.
Manager: (annoyed) Lucy, find the receipt in that pile and give her the money back.

Speak Up about Bad Behavior

There are lots of dirty tricks people can use in negotiations. Your opponent may try to make you feel uncomfortable and catch you off guard. For example:

- Non-verbal signs of annoyance – sighs, refusal to make eye contact, pencil tapping, etc.
- Threats and insults – “You must be an idiot to ask for that.”
- Physical location – make you feel uncomfortable and off balance by putting you in a low chair, with light in your eyes, having your back to a busy open door, etc.
- Good cop/bad cop – Two people negotiate with you. One person attacks you while the other acts as if they’re on your side and are trying to help and protect you. They want you to bond with them and give in to them.

There are three nonproductive responses most people make to these tactics:

- Ignore the bad behavior and hope things turn around, which conveys that it is OK with you to be treated in those ways and gives the other person power.
- Try to appease the person by giving in a bit, which rewards the bad behavior.
- Fight fire with fire – they make threats, you make threats. This usually leads to neither side getting what they want, and even to dropping the negotiation entirely.

What are some more useful responses you can have to such behavior?

- (1) Tactfully address the behavior. You don’t have to accuse them or get angry, but calmly point out their behavior. Most of the time, they expect you not to address it or even realize it is happening. Addressing it can make your opponent feel silly or petty.
- (2) State your desires and maintain your principles. Tell them what you would like for them to do. When possible, back it up with a principle.
 - “Excuse me, is something wrong? You seem distracted. Perhaps we should do this another time.”
 - “I seem to be facing the sun here. Why don’t we close the blinds a bit before we continue.”
 - “The salary you suggested seems very low. I think we need to determine the price based on fair and objective standards.”

Role Play Exercise

Let's try another role play. This time, we'll focus on the assertiveness strategies you've just learned, but feel free to practice the other strategies too. This role play will work basically the same way as the last one. Pair up with your partner again, only this time, swap employee and employer roles.

→ Hand out role descriptions

You will have a few minutes to plan your negotiation strategies. Then you will have time to negotiate to an agreement and we will discuss how well you were able to use the strategies.

Role 1: Employer

You have five minutes to prepare for the negotiation. Read the description and pay special attention to the negotiation tactics you should use in your role play (described at the bottom of this page). Focus on trying to put your opponent off balance so that you can keep the salary as low as possible. In this negotiation, your job is to make it difficult for your opponent to focus on issues – but be responsive when they use effective strategies. Feel free to be creative. Then, negotiate with your opponent to strike a deal!!

Who you are – A hiring manager looking for a good employee

Your Situation:

- You work for a mid-sized company and don't have a lot of resources
- Your boss is sick of looking and wants you to fill the position soon!
- You are not authorized to offer more than \$42,000
- You know bigger firms offer more money
- You have great benefits
 - Health and dental insurance, 2 weeks vacation, 401K matching, \$1,000 personal development money the candidate could use for training, etc.
 - Benefits kick in after six months, but exceptions are often made
 - You can give up to 1 week additional vacation if you need to
- You are given \$5,000 to use any way you want – to give a 1-time bonus, moving costs, etc.

Candidate's Strengths:

- Master's degree from a very good school
- Has worked for one of your company's big clients, which is a big plus
- Some previous work experience before graduate school, so may start fast

Candidate's Weaknesses:

- Very little management experience, and would be responsible for several people
- Several years unaccounted for on their resume – what's that all about?

Tactics:

- Start to close the deal immediately. Say something like, "We'd like you to join our team. We're going to offer you our standard package, \$34,500 with full benefits after six months. So shall we get the paperwork out of the way?"
- Guilt them if they try to negotiate. Say something like, "Don't you like our company? What's the big hang up? There is more to life than money."
- If they ask for something from you, agree to give them what they want, but come back with a ridiculously low offer. For instance, if they request additional vacation time, offer them just one day more.
- Ask about the gap in their resume and play it up as a huge concern.
- If they ask you a question, ignore it and keep talking about your last point.
- Get annoyed. Say something like, "Is this how you want to start a new job?"

Role 2: Employee

You have five minutes to prepare for the negotiation. Take some time to consider how your opponent may approach the negotiation and how you could respond. Focus on how you can keep your balance and stay focused on issues rather than positions. Feel free to be creative. Then, negotiate with your opponent to strike a deal!!

Who you are – A person fresh out of a master's degree program and looking for a job!

Your Situation:

- This company is mid-sized
- The company is located in an area where you really would like to live
- You have credit card debt to pay off – about \$4,000
- The market appears to show the range from \$30,000 to \$55,000, average \$45,000
- You won a trip to Hawaii and you need to use it within six months.
- You're going to have to move to a new city to take this job, and it will cost you \$1,000 to break your lease.

Your Strengths:

- You are coming out with a Master's degree from a very strong school
- You have worked with one of the company's big clients
- You have some previous work experience before graduate school
- You're a reasonably good student
- You have good writing skills

Your Weaknesses:

- You know you don't have quite the management experience they want
- You have a gap in your resume because you got fired after a personality conflict with a boss (who you think was crazy!)

Think About:

- How your opponent might try to negotiate with you
- How you can prepare to use the strategies you have learned to respond to your opponent
- Keeping your balance and keeping the negotiation focused on issues rather than positions

Conclusion

In this workshop, we began by distinguishing between two different philosophies of negotiation – the position approach and the issue approach. Most of the time, people think only about positions during a negotiation, and end up with arbitrary and frustrating outcomes. The negotiation strategies we have covered today are based on the issue approach to negotiation. This philosophy involves looking at a negotiation as an opportunity to exchange information and create a win-win outcome, so that both sides are satisfied.

We talked about four negotiation strengths you can practice and use during negotiations – negotiation attitude, research and objectivity, focus on interests, and react with assertiveness.

To be able to use these strategies effectively, you will have to practice and prepare. During an actual negotiation, you will have many things to think about all at once. If you think ahead of time about how you will use these strategies, you will be more successful.

I am going to distribute a description of the negotiation simulation you will participate in next week. I'll give you a minute to read it, and then we'll continue. You will be able to take the description home with you today to help you prepare.

APPENDIX E

NEGOTIATION ACTION PLANNING GUIDE

In this training, you have learned a set of negotiation strategies that you could use in many different situations to help you achieve your goals. But the strategies won't help you if you don't use them!

Action Planning

Now I'm going to help you create an action plan. Action planning will help you make the most of your new negotiation skills because you will:

- develop **GOALS** for using your negotiation skills,
- detail the main **STEPS** you will have to take to reach your goals,
- identify any **RESOURCES** you will need to meet your goals,
- set a **TIMELINE** for meeting your goals, and
- focus on **MEASUREMENTS** you can observe to determine whether you are accomplishing your goals.

Setting Goals

As you create your action plan, keep in mind that the best goals are:

- (1) **SPECIFIC** so they can guide you to do exactly the things you want to do.
- (2) **CHALLENGING** so they encourage you to achieve a little bit more than you think you can (but not so difficult that you don't believe you can achieve them).

If you have any questions along the way, please ask.

Action Plan

Line up your carbon paper. First, think of a negotiation you will have during the coming week. Write who you will negotiate with and what the negotiation will be about at the top of the page.

Now think about your goals in that negotiation. You may have goals for the negotiation as well as goals for using your new strategies. Fill out the first column on the page.

- Remember to make your goals specific and challenging.

My Action Plan – For My Negotiation

*Practicing your skills in at least one real negotiation this week will help you get better at negotiating, and may help you get what you want! Think about one opportunity you will have during the coming week to use your negotiation skills—either a negotiation you know you are going to have, or something you would like to negotiate about with someone now that you know these strategies. What are the central issues in the negotiation likely to be? An action plan outlines how you intend to use your new negotiation skills. Remember that you will do best if you set **SPECIFIC** and **CHALLENGING** goals. Once you have established those **GOALS**, you will identify **STEPS**, **RESOURCES**, a **TIMELINE**, and **MEASUREMENTS**. Each of these pieces will give you additional help in meeting your goals.*

Who will you negotiate with this week? _____ What will you negotiate about? _____

| | GOALS What is my goal? | STEPS What steps am I going to take? (List them.) | TIMELINE When will I accomplish each step? | RESOURCES What resources/help do I need? | MEASUREMENTS How will I know if I accomplish my goal? |
|----|---------------------------|--|---|---|--|
| 1. | | | | | |
| 2. | | | | | |
| 3. | | | | | |

My Action Plan – For the Negotiation Simulation

You will have an opportunity to practice your negotiation skills when you return for the negotiation simulation that concludes this experiment. Read the description of this negotiation that you have been given. What are the central issues in the negotiation likely to be? Write an action plan outlining how you intend to use your new negotiation skills. Remember that you will do best if you set SPECIFIC and CHALLENGING goals. Once you have established those GOALS, identify STEPS, RESOURCES, a TIMELINE, and MEASUREMENTS. Each of these pieces will give you additional help in meeting your goals.

| | GOALS What is my goal? | STEPS What steps am I going to take? (List them.) | TIMELINE When will I accomplish each step? | RESOURCES What resources/help do I need? | MEASUREMENTS How will I know if I accomplish my goal? |
|----|---------------------------|--|---|---|--|
| 1. | | | | | |
| 2. | | | | | |
| 3. | | | | | |

APPENDIX F

NEGOTIATION ACTION PLANNING GUIDE

In this training, you have learned a set of negotiation strategies that you could use in many different situations to help you achieve your goals. But the strategies won't help you if you don't use them!

Action Planning

Now I'm going to help you create an action plan. Action planning will help you make the most of your new negotiation skills because you will:

- connect your negotiation skills to the **PERSONAL GOALS** you value most highly (Part 1),
- develop **TOWARD & AWAY GOALS** for using your negotiation skills (Part 2), and
- identify **WHEN** you will have opportunities to pursue your application goals, and plan specific **ACTIONS** you will take when those opportunities arise (Part 3).

Setting Goals

As you create your action plan, keep in mind that the best goals are:

- (3) **SPECIFIC** so they can guide you to do exactly the things you want to do.
- (4) **CHALLENGING** so they encourage you to achieve a little bit more than you think you can (but not so difficult that you don't believe you can achieve them).

If you have any questions along the way, please ask.

Why *You* Care about Negotiation Skills

Action Planning Guide Part 1

First I want you to stop and think about why these skills are important to you. If you are really going to commit to using these skills and continue developing your negotiation expertise, you have to believe that these skills can be useful to you.

How Negotiation Can Help You Meet Your Personal Goals

Your personal goals and values shape the decisions you make and the things you do. Think about the courses you will take as electives at MSU. Think about the things you will choose to do today. You select certain choices over others because of your goals and values.

You will invest more energy in using your negotiation skills if you see how they relate to your goals and values. However, we don't always recognize that something new is relevant to our goals and values. (How many times have you found yourself wishing you had paid more attention to learning something you now realize would be useful?)

I want you to think about two kinds of goals and values:

1. The kind of person you want to be – These are goals and values concerning qualities you strive to have and display.
 - a. The negotiation skills you learned today may support the kind of person you would like to be and how you would like to interact with others.
 - b. Keeping these goals and values in mind provides motivation to use the skills you have learned and to focus on why they are important to you.
2. The things you want to achieve – These are goals and values concerning outcomes you would like to achieve (e.g., things you want to do, recognition you hope to deserve, things or rewards you desire).
 - a. The negotiation skills you learned today may help you achieve some of the things you would like to accomplish or have in life.
 - b. Keeping in mind what you can accomplish with the negotiation skills will help you muster the energy to put them to use.

Who I Want to Be &

How Negotiation Will Help Me

Think about the kind of person you want to be. By making connections between the negotiation skills you have learned and your personal goals and values, you will be able to use the skills to your best advantage. This exercise will help you to consider how the negotiation skills can help you achieve your most important values.

| | |
|--|---|
| When I think about the kind of person I want to be and how I want to interact with others, the qualities and values that are most important to me are: | The <u>negotiation strategies</u> I learned in this workshop could help me be this type of person by...(describe how using these strategies will help you show these values). |
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What I Want to Achieve & How Negotiation Will Help Me

Think about things you want to do, recognition you hope to deserve, rewards or things you desire, etc. By making connections between the negotiation strategies you have learned and your personal goals, you will be able to use the skills to your best advantage. This exercise will help you to consider how the negotiation strategies can help you achieve your most important goals.

| When I think about what I want out of life, the things that are most important for me to achieve are: | The <u>negotiation</u> strategies I learned in this workshop could help me achieve this goal by...(describe how using these strategies will help you reach your goal). |
|---|--|
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Planning To Use Your Negotiation Skills

Action Planning Guide Part 2

One way to help yourself use the negotiation skills you have learned is to set goals that will give you something to shoot for. Many training programs encourage people to set goals about how they would like to use what they have learned. You may even have some goals in mind right now about how you would like to be able to use your new negotiation skills. However, one thing people aren't usually aware of is the direction they are setting themselves up to move in. The direction you try to move in impacts how successful you are in getting there.

Focus on the direction you are moving in!

You may not have thought about it this way, but your goals can point you in one of two directions—toward something you want to accomplish, or away from something you want to avoid.

- TOWARD Goals – TOWARD goals remind you of the positive things you are trying to achieve and pull you TOWARD them. With TOWARD goals, you always know where you are headed.
- AWAY Goals – AWAY goals only remind you of what you are trying to avoid or prevent, so they push you AWAY from them. However, they don't tell you exactly where you should go.
- TOWARD goals will help you more than AWAY goals because they tell you exactly where you need to be. All you have to do is figure out how to get there. Set TOWARD goals that will keep you focused on the good things you want to accomplish, rather than distracted by what you don't want.
- AWAY goals can easily be turned into TOWARD goals! All you have to do is figure out one or more specific things you can do or places you can go that will allow you to stay away from the things you don't want. Then you can turn your attention to where you want to go, knowing that you won't end up doing what you wish to avoid.

Turn to Page 3 and line up your carbon paper. First, think of a negotiation you will have during the coming week. Write who you will negotiate with and what the negotiation will be about at the top of the page.

Now think about your goals in that negotiation. You may have goals for the negotiation as well as goals for using your new strategies. Fill out the first column on the page.

- What are your TOWARD goals?
- What are your AWAY goals – and how can you turn them into TOWARD goals?
- Remember to make your goals specific and challenging.

When Situation X Occurs, I Will Do Y!!

Action Planning Guide Part 3

If you have done a good job of setting goals, they will help you use your skills in your negotiation. However, many of these skills may be new to you and you have had limited time to practice them today. Therefore, you may have some trouble using them comfortably in spite of your goals. In the middle of your negotiation, you may find yourself suddenly confused about which of the strategies to use. Or, you may fall back on old habits and forget to use your new skills until it's too late.

By spending just a little more time preparing to use your new negotiation skills, you can greatly improve your chances of successfully achieving the goals you have just set. This final exercise will help you create powerful situation-action pairs by:

- identifying opportunities to use your new skills in pursuit of your goals, and
- committing to using the particular skills when those opportunities arise.

I Know When I Will Use My Negotiation Skills!

Think about the negotiation you are going to have. How do you think the negotiation will go? What are the central issues in the negotiation likely to be? What specific opportunities will you have during the negotiation to use your new skills? What strategies is your opponent likely to use, and how can you respond effectively?

For each goal you wrote, think of the best strategies that will help you meet that goal. List those strategies in Column 2.

Now think about the best opportunity you might have to use each strategy during your negotiation. Write a specific statement of what the opportunity will be in Column 3.

You have just created action goals – read one out loud to yourself by going backward. You should say, “When situation X occurs, I will do Y!!”

Negotiation Simulation Planning

Now turn the page and line up your carbon paper again. You will do the same thing for the negotiation simulation you will participate in next week.

Read the description of the negotiation. How do you think the negotiation will go? What are the central issues in the negotiation likely to be? What specific opportunities will you have to use your new negotiation skills? What strategies is your opponent likely to use?

Fill out all three columns for your simulation goals.

My Action Plan – For My Negotiation

Practicing your skills in at least one real negotiation this week will help you get better at negotiating, and may help you get what you want! Think about one opportunity you will have during the coming week to use your negotiation skills—either a negotiation you know you are going to have, or something you would like to negotiate about with someone now that you know these strategies. What are the central issues in the negotiation likely to be? What specific opportunities will you have to use your new negotiation strategies? What strategies is your opponent likely to use, and how will you respond?

Who will you negotiate with this week? _____ What will you negotiate about? _____

| | What is my goal? (TOWARD goal or AWAY + TOWARD goal) | What are the best strategies for me to use to meet my goal? | When is the best opportunity to use each strategy? (Remember to consider what your opponent might do.) |
|----|--|--|---|
| 1. | | | |
| 2. | | | |
| 3. | | | |

My Action Plan – For the Negotiation Simulation

You will have an opportunity to practice your negotiation skills when you return for the negotiation simulation that concludes this experiment. Read the description of this negotiation that you have been given. What are the central issues in the negotiation likely to be? What specific opportunities will you have to use your new negotiation strategies? What strategies is the person from Price Waterhouse likely to use, and how will you respond?

Who will you negotiate with this week? _____ What will you negotiate about? _____

| | What is my goal? (TOWARD goal or AWAY + TOWARD goal) | What are the best strategies for me to use to meet my goal? | When is the best opportunity to use each strategy? (Remember to consider what your opponent might do.) |
|----|--|--|---|
| 1. | | | |
| 2. | | | |
| 3. | | | |

APPENDIX G

NEGOTIATION SIMULATION INFORMATION

When you return for PART II of this experiment, you will participate in a negotiation simulation similar to the role plays we have done during the training workshop today. You will be CHRIS THOMPSON, and you will meet with the Personnel Director from Price Waterhouse to discuss a job that you are very interested in. Using the strategies you learned today, you will try to create the best agreement possible between CHRIS and Price Waterhouse. Here are your instructions...

You are a 28-year-old engineer and have worked for your current employer, Arthur Andersen (a major competitor of Price Waterhouse) for five years. Until two years ago, you were a “rising star.” You regularly worked 70-80 hours per week and jumped at every opportunity to travel for the company. Since your car accident two years ago, which nearly cost you your right leg, your work pace has slowed.

After the car accident, the physical therapy necessary to save your leg became your top priority. As a result, you reduced your work hours to 40 per week. Unfortunately, your current supervisor, Pat Robbins, arrived on the scene just after you came out of the hospital. As a result, Pat has not seen you perform at your full potential. Because you told Pat that no project or deadline was more critical to you than your physical therapy, Pat has generally kept you off projects that require critical problem-solving ability and instead put you on simpler projects.

It is now over two years since the accident. Last week, your physical therapist told you that the strength in your leg is fully restored, and you can stop therapy. This news could not have come at a better time. Just last week you learned that Price Waterhouse is looking for someone to take a senior consultant position to redesign a computer-based accounting system which is currently causing a major client to lose substantial sums of money.

You feel that you are the best candidate for the position due to your graduate training (you have an MBA from MSU with a concentration in accounting) and the fact that the senior consultant will be asked to troubleshoot the problem with the head of the Management Information Systems group in the client firm – Terry Manns. Terry was your supervisor at Arthur Andersen for three years prior to your accident, and unlike most people, you get along with Terry fantastically. (Most others are put off by Terry’s inflated ego and quick temper.) It is very difficult to engage in healthy, productive problem solving in conflict-ridden situations. You know that your working relationship with Terry would be like it was when Terry supervised you – smooth, highly motivating, and *productive*.

You have scheduled an appointment with the Director of Personnel at Price Waterhouse to discuss your interest in the senior consultant position and the salary you desire. You are currently making \$40,000 a year. You suspect your current salary is on the low end of what Price Waterhouse pays its senior consultants. At least your research indicates that \$40,000 is on the low end for this type of position in general, and that \$60,000 is the high end. An increase in salary is certainly something you need right now to help you pay the enormous medical expenses of your physical therapy.

Getting the senior consultant position is more important to you than salary, however. Above all else, you want to re-establish your reputation as an outstanding analyst. Your current supervisor, Pat, has prevented you from demonstrating this because of the “Mickey Mouse” assignments you have been getting assigned to.

This latter point and your unique “personality fit” with Terry Manns are points you must stress in your upcoming negotiations with the Personnel Director. You fear that your reduced work pace and absence

from significant work in the last two years may make you appear less able than others to adequately fill the senior consultant position. You are also not confident that Pat will give you a strong recommendation.

Your goal is to negotiate with the Personnel Director until you achieve an acceptable salary and arrangements for the senior consultant position. You do not want to walk away from this opportunity without getting the job. Of course, you wish to balance this with getting the highest salary you can. You know that the Personnel Director is very busy and you should anticipate that you will only have about fifteen minutes to negotiate the salary you want as senior consultant with Price Waterhouse. Plan wisely...

APPENDIX H

NEGOTIATION SIMULATION SCRIPT

Confidential Instructions for the Personnel Director (Confederate)

You are the Director of Personnel at Price Waterhouse. Over the last six months, one of your major clients has been losing substantial sums of money due to a computer-based accounting system that is not well suited to their needs. At a meeting with your top management last week, it was decided that your analysts were preoccupied with too many other projects to give sufficient attention to the critical and costly problem your client is facing. Therefore, top management decided to advertise a senior consultant position. This person's exclusive responsibility would be to remedy this critical problem.

Against your wishes, top management additionally decided that the senior consultant would troubleshoot the problem with the head of the Management Information Systems group in the client firm, Terry Manns. You opposed the idea since most people in the company have difficulty working with Terry as a result of Terry's inflated ego and quick temper. It is very difficult to engage in healthy, productive problem solving in conflict-ridden situations, and successful problem solving is exactly what is needed to solve the client's expensive accounting problem. You fear that pairing a senior consultant with Terry will limit the success of the project – or at least slow it down substantially.

One of the first people to call you about the senior consultant position is Chris Thompson (who has been with your competitor, Arthur Andersen, for the last five years). Terry Mann supervised Chris for three years before becoming the head of the Management Information Systems group at the client firm two years ago. When supervised by Terry, Chris performed outstandingly – Chris worked 70-80 hours per week routinely, and jumped at every opportunity to travel for the company. During that time, Chris was well known in the field for having exceptionally quick and thorough analytical abilities. Chris has an MBA from MSU with a concentration in accounting. Unlike most others in the company, Chris got along fantastically with Terry Manns, and therefore you think Chris may be the best candidate for the newly created senior consultant position for this project.

Since Chris' car accident two years ago, however, Chris has *not* been outstanding, and therefore you have some doubts about Chris' suitability for the senior consultant position. You know it was the intensive physical therapy Chris had to go through that caused Chris to drop back to 40 hours per week and refuse travel opportunities. Chris' current supervisor, Pat Robbins, who replaced Terry Manns just after Chris came out of the hospital, told you that because no project or deadline was more important to Chris than the physical therapy, Pat has kept Chris off of projects that require critical problem solving and instead assigned Chris to projects that require simple (less time consuming) thinking. Therefore, Pat was not able to give you an opinion regarding Chris' current analytical competence.

On the phone, Chris told you that physical therapy was no longer needed. You have scheduled an appointment with Chris to discuss your interest in filling the senior consultant position and negotiate a salary you will pay Chris if hired (you are also talking with several others). You know that Chris is currently making \$40,000. Senior consultants at Price Waterhouse generally earn between \$40,000 and \$60,000, depending on their tenure with the company, performance record, and degree of education.

You believe Chris wants this position very badly in order to make a "career comeback" and re-establish a strong reputation in the field. You think Chris would probably settle for a salary as low as \$42,000 for the mere opportunity to take the critically important responsibility of senior consultant and heroically save the company from more profit losses. To justify paying Chris a low salary for the position, you must stress in the upcoming negotiation that Chris' analytical competence and drive are questionable given Chris' absence from work and reduced work pace and challenge over the past two years. Three other candidates are similar to Chris in all respects (experience and education) except for Chris' known ability to work well with Terry Manns. And you know that you would have to pay others a greater salary (relative to what you think Chris would take) to get them to take what you know will be a very time consuming project.

Negotiation Simulation Protocol (Part II Session)

Greeting & Measures (10-15 minutes)

1. WRITE the date, time, and location of the session in the scantron signature box.
2. FILL IN your experimenter number under “form” on the scantron (Morgan = 1, Rachel = 2, Tracy = 3).
3. GREET participant. SAY, “Hello, I’m {your name}. Thank you for coming.”
4. GIVE measure of negotiation skill use, scantron, and pencil. SAY, “Please spend some time thinking back over the week since you took the training and complete this measure carefully. We have allowed plenty of time for you to think about it.” They complete items 1-15.

Negotiation Simulation

5. GIVE a copy of the participant role description and the negotiation strategy review page if they do not have them. SAY, “We’ll begin the negotiation next. Do you remember the description of your background, Chris? You will have a few minutes to prepare while I get my materials together.” PREPARE script & rating form.
6. WAIT up to five minutes. SAY, “Let’s start our roles for the negotiation now. Please go into the hallway and knock on the door, and I will greet you.” WRITE the Start Time on the Rating Form. START tape recorder.
7. SAY, “Hello, Chris. It’s nice to meet you. I am {your own name}, the Personnel Director for Price Waterhouse. I’m glad you could come in to talk with me about the senior consultant position. I have talked with our management group, and we are interested in having you join Price Waterhouse. We can offer you \$42,000.”
8. RESPOND to the participant’s comments and requests according to our negotiation rules. Be consistent across participants. Each time the participant takes a turn, decide (a) whether he or she is using one of the negotiation strategies, and (b) whether the attempt is effective. RECORD the behaviors on the observation sheet and respond accordingly with your salary offer.
9. @ \$60,000 OR when the participant accepts your offer, end the negotiation and WRITE the End Time on the Rating Form. STOP tape recorder.

Measures & Debriefing

10. GIVE the goal helpfulness measure. SAY, “This is the final part of the experiment. Please complete it carefully.” FINISH the rating form (evaluate Negotiation Attitude and add all bonus points; write the final salary at the top of the sheet).
11. GIVE the debriefing form. SAY, “This is a brief description of the purpose of this study. If you have any questions, please contact Karen.”
12. STAMP their card if they have it. SAY, “Thank you for participating in the study.”
13. Each Monday at our meeting, TURN IN your materials from the previous week, including a list of “no show” participants.

Negotiation Script

General Info:

You are a position-based bargainer. You are interested in hiring Chris, but within the limits you've established. You feel this is a terrific opportunity for Chris, and you expect that Chris realizes this. Sure, Chris will try to haggle over salary a little because everyone does that. But there really isn't anything else to discuss. You just want to find out for yourself if the things you have heard about Chris are true, settle things quickly, and save both money AND hassle with Terry Manns (compared to the other applicants).

Your job is to hold costs down but still attract the best person for the job, and you don't want to rule Chris out simply by being stingy. You are a reasonable person, and can be swayed by the right arguments and evidence, though you pride yourself on not being a doormat. If Chris gives you reason to believe \$42,000 is not enough, you're quite willing to offer a higher salary or other perks. You are authorized to go up to \$60,000 if Chris can really knock your socks off. In addition, you are able to offer a premium insurance package, moving expenses, extra vacation days, or other things that would appeal to Chris but cost Price Waterhouse little.

Begin the Negotiation (stay as close to script as possible):

"Hello, Chris. It's nice to meet you. I am {your own name}, the Personnel Director for Price Waterhouse. I'm glad you could come in to talk with me about the senior consultant position.

I think this is a really exciting position, and we're happy that you're interested in it. I have talked with our management group, and we think you are a good candidate for the position. I have been looking forward to talking with you about joining the Price Waterhouse team.

I think we've put a good package together for you. After considering your application and qualifications, we've decided that we can offer you \$42,000."

Your Script at Particular Salary Levels or Other Events:

AFTER the briefest issue discussion you can manage, SAY, "Now, how about we get back to salary. I am offering you {state current salary} to come join our team. Are you in?" (Trying to prompt Placing Issues before Resolutions. Do this EVERY time you discuss an issue (use different words). This shouldn't be mean – just show that you are focused on salary and the offer, not on the issues.)

WHEN participant asks about benefits, SAY, "Our benefits package does not kick in until you have one year of service behind you." (Do not give any further information -- trying to prompt Silence.) If they successfully put you on the spot with questions about benefits, SAY, "The package will include basic health and dental coverage and 2 weeks vacation."

@ \$43,000, SAY, “What salary are you looking for?” *(Trying to prompt Placing Issues before Resolutions.)*

@ \$45,000, evaluate Attitudinal Bargaining.

- + If the person appears confident and has shown contained enthusiasm so far, **RECORD** an “A” under “Effective” and **CROSS OFF** \$46,000. The next time they use an effective strategy, **RECORD** it on the \$45,000 line and **RAISE** your offer to \$47,000.
- If the person does not show confidence and/or contained enthusiasm so far, **RECORD** an “A” under “Ineffective.” The next time they use an effective strategy, **RECORD** it on the \$45,000 line and **RAISE** your offer to \$46,000.

@ \$47,000, SAY, “I am taking a risk even offering you this position. You don’t come with a very high recommendation from your previous supervisor, and your record over the past two years clearly shows that your performance and motivation are under par.” *(Looking for Negotiation Jujitsu.)*

@ \$48,000, TAP your pencil (not too outrageous, this is just build-up). Continue doing this and at **\$49,000, ACT** annoyed and **SAY**, “You’re asking for much more than you’re worth. You must be crazy to think that we would pay you that much money.” *(This is a personal attack to elicit Directly Countering Dirty Tricks.)*

@ \$50,000, SAY, “Chris, I’ll be honest. Pat told me about the kinds of projects she’s been able to put you on for the past two years, and frankly, they’re not impressive. Your recent work experience is a real weakness in my book.” *(Looking for Negotiation Jujitsu.)*

@ \$51,000 (or the next opportunity), **IGNORE** the participant’s demand, request, or question. Simply return to what you were saying, state the current offer again, or give a short response that doesn’t address what they said well at all (e.g., “That’s not possible,” “No.”). *(Trying to prompt Broken Record by making it clear to them that they are unheard!)*

@ \$53,000, SAY, “Do you want to work for Price Waterhouse or not? That’s plenty of money for this position. I’ve got other things to do. Why don’t you give me a call when you are serious about working here.” **GATHER** papers as if you are done. *(This is a personal attack to elicit Directly Countering Dirty Tricks.)*

@ \$55,000 (or the next opportunity), **IGNORE** the participant’s demand, request, or question. Simply return to what you were saying, state the current offer again, or give a short response that doesn’t address what they said well at all (e.g., “That’s not possible,” “No.”). *(Trying to prompt Broken Record by making it clear to them that they are unheard!)*

WHEN participant accepts your offer (below \$60,000), SAY, “I’m glad we were able to come to an agreement. We’re happy to have you on board, Chris.” Follow the Protocol from Step 8.

IF the participant asks to get back to you, SAY, “I’m sorry, but I really need a firm decision from you today. I can give you a minute or two to think about it now.”

If they continue to try to get out of committing, SAY, “It surprises me that you are reluctant to accept this offer. After our conversation, I understand that our initial offer was somewhat low. But I think we’ve been able to address that and bring it up to a fair salary for your qualifications during this conversation. We really do need to move forward with this position, and since I have other candidates for the job, unfortunately I can’t wait for your decision. Perhaps another minute to consider the offer would help.”

@ \$60,000, END the negotiation. SAY, “I’m sorry it’s turned out this way, but it looks as though Price Waterhouse will be unable to meet your salary demands. I would be happy to hire you for \$60,000 and with the other agreements we’ve made, but I simply can’t go any higher than that.” If the person continues to try to negotiate, STAND and SAY, “You’ll have to excuse me, Chris, I have an important meeting that I am already running late for. I can’t talk to you any more today.” Follow the Protocol from Step 8.

Experimenter Responses to Participant Negotiation Strategies:

Contrasting against Objective Standards (C)

| | | |
|--|---|---|
| GOOD "That's interesting. Where did you get that information?" <i>{response}</i> | | BAD (over \$60,000, wild) "That's interesting. Where did you get that information?" <i>{response}</i> |
| GOOD "You're right, our offer is on the lower end. But we also have senior consultants making only \$40,000. Based on your history, I can offer you an additional \$1000." | BAD "I don't think you understand the qualifications that people at the top end of that range bring to our company. They have more experience, advanced degrees, and proven performance records." | "You must have been looking at jobs very different from ours. Our own research indicates that we pay our senior consultants top wages compared to other companies our size after you make adjustments for cost-of-living in various regions." |
| <i>If it is something other than salary, make reasonable substitutions to this format.</i> | | |

Placing Issues before Resolutions (Issues)

| | |
|--|--|
| GOOD <i>{If they just suggest placing issues first}</i> "Sure. What would you like to talk about?" Then rate "Talking about Issues." | BAD <i>{No explicit statement or has already stated salary range.}</i> "Maybe we can discuss that later, but for now I need to know whether or not you are accepting my offer." |
|--|--|

Talking about Interests (Int)

| | |
|---|---|
| GOOD <i>{they ask your interests}</i> "We have an important client having problems with an accounting system that doesn't fit their needs well. We need someone who can devote their entire attention to this project and solve the problems quickly and within budget, since we are already losing money on the system." "We also need someone who can effectively work with the client's top MIS person." --DO NOT say 'Terry.' Record the strategy use but don't increase salary until next effective strategy. | BAD <i>{they talk about their own needs/wants <u>without</u> asking yours, e.g., "I was hoping for more."}</i> "I'm sure that _____ is very important to you. However, that doesn't change what we can pay for this position. If you would like to make trade-offs in another area, we can discuss your preferences." They cannot use <u>their</u> interests to increase the overall offer, but they can request how things are allocated IF you agree (e.g., you probably won't agree to reduce vacation time and increase salary, but you might agree to opposite). |
|---|---|

If...Then (If/T)

| | |
|---|---|
| GOOD "That sounds like a fair trade, Chris. I can't commit to the level you requested, but what if I increase your salary by \$1000 and give you {reduced level of what they asked for}?" | BAD "That really doesn't sound like a fair trade for me, Chris. I can't offer what you're requesting just for {what they offered}." |
|---|---|

Unique Features (U)

| | |
|--|---|
| GOOD "You're right, Chris. I hadn't fully considered what that would add to our team. I can offer you an additional \$1000." | BAD "I'm glad you feel so confident about your qualifications in that area. I'm sure that will be beneficial, but it just isn't enough for me to increase what we can offer you." |
|--|---|

Seek & Grant Compensatory Offers (CO)

| GOOD | BAD |
|---|---|
| <p><i>{Their weakness}</i> “Yes, it really helps out that you can offer {compensating strength} even though you aren’t as strong in {weakness}. I can increase your salary by \$1000 {or substitute other perk}.”</p> <p><i>{Your weakness}</i> “I agree that {weakness} is not a strength for us. Your proposal for compensation in {the other area} will work fine for me {increase salary by \$1000 or other perk}.”</p> | <p><i>{Their weakness}</i> “I’m glad that you feel you’re strong in {strength}, Chris. However, I really just need someone who can meet the requirements of the position. When it comes to getting the job done, your strength in {other area} won’t make up for your lack of {weakness}.”</p> <p><i>{Your weakness}</i> “I agree that {weakness} is not a strength for us. However, I can’t just increase {the other area} because of that.”</p> |

Negotiation Jujitsu (J)

| GOOD | BAD |
|--|--|
| <p><i>{Agrees calmly & immediately turns into positive.}</i> “I never thought about it that way. You’re right, that would really be beneficial to us. In fact, I can offer you \$1000 more for being able to contribute that strength.”</p> | <p><i>{Debates weakness, fails to turn into convincing positive.}</i> “I don’t think you understand how much that weakness would directly impair your work.”</p> <p><i>{If you get stuck in a loop on this}</i> “Listen, you’re simply not going to be able to convince me that this is a strength. Why don’t we move on to something else?”</p> |

Maintaining Silence (S)

| GOOD | BAD |
|--|--|
| <p><i>{Silent & serious for 10 seconds.}</i> “From your lack of response, I assume {my offer} isn’t quite what you had in mind. What do you think about {new offer, add \$1000}?”</p> | <p><i>{They talk before 10 seconds is up.}</i> <i>Let them continue. Remember to mark ineffective use of silence.</i></p> <p><i>{They wait for you to break, but lose composure.}</i> “How does that sound to you?”</p> <p><i>They can use silence as many times as they want, but not back-to-back.</i></p> |

Broken Record (B)

| GOOD | BAD |
|--|--|
| <p><i>{Demand/request you have ignored}</i> “Clearly this is something that’s important to you. How about if I raise your offer by \$1000 {or other perk}?”</p> <p><i>{Question you have ignored}</i> “I guess you really want an answer to that. {Answer question.}” <i>Raise \$1000 with next effective strategy.</i></p> | <p><i>{Irritated or you’ve already responded.}</i> “Yes, I heard you the first time, but my offer still stands.”</p> <p><i>{Quits before you respond}</i> <i>Say nothing, rate as ineffective.</i></p> |

Speak Up About Bad Behavior / Direct Counter (D)

| GOOD | BAD |
|--|--|
| <p><i>{Polite, principles, specific request for change}</i> “Oh, I’m sorry. I didn’t realize {what they pointed out}.” <i>Raise \$1000 with next effective strategy.</i></p> | <p><i>{Confrontational, no request, points out after responding to you.}</i> “You really don’t seem to be a very easy-going person. We really need a team player here.”</p> |

@ END of Negotiation (while person answers final set of questions):

FILL IN “End Time” for the negotiation at the top of the rating form.

Evaluate Negotiation Attitude

(Ignore pre-\$45,000, which you already rated. These ratings should be independent.)

- + If the person appeared confident and showed contained enthusiasm from \$45,000 through the end of the negotiation, **WRITE \$1000** in the Attitudinal Bargaining Bonus in the bottom left corner.
- If the person did not show confidence and/or contained enthusiasm from \$45,000 through the end of the negotiation, **WRITE \$0** in the Attitudinal Bargaining Bonus in the bottom left corner. Please do not just leave the line blank – make it clear that you rated them as ineffective.

Evaluate Other Bonuses

- + If the person got you to agree to perks besides higher salary during the negotiation, **COUNT** the number of times they increased each perk. For each increase, add \$1000 bonus. **WRITE** the total \$ bonus for each type of perk in the bottom left corner.
- If the person did not negotiate any non-salary perks, **WRITE \$0** on each line in the bottom left corner. Please do not just leave the lines blank.

Compute Final Salary

ADD all of the bonus points to the actual negotiated salary.

RECORD the total amount on the “Final Salary” line in the upper right corner.

Negotiation Strategy Quality Criteria

| | | |
|---|---|--|
| Negotiation Attitude <i>(Evaluate at \$45,000 and at end of negotiation.)</i> | confidence, contained enthusiasm | |
| | <i>Effective:</i> Demonstrates composure, uses eye contact, still posture, interested facial expression, calm voice, clear words without qualifiers, says things to express interest in what you offer | <i>Ineffective:</i> Appears to try to be confident but ends up losing composure, fidgeting, using hedging language, shaky voice, or goes overboard and appears disinterested in the negotiation |
| Contrasting against Objective Standards | objective standard, sense of relativity, other market salaries, other offers, putting requests in perspective | |
| | <i>Effective:</i> Provides a comparison with a legitimate external source, states the source clearly, compares apples to apples, convincingly shows similarities | <i>Ineffective:</i> Provides a comparison without a legitimate external source, compares apples to oranges |
| Issues First | points out desire to talk about issues before numbers | |
| | <i>Effective:</i> Explicitly states that he/she would like to talk about issues before salary offer, uses this strategy when you ask him/her to state a salary range | <i>Ineffective:</i> Begins a conversation about issues instead of salary without explicitly telling you he/she wants to talk about issues first, states a salary range before turning to this strategy |
| Target Opponent's Interests | addresses issues rather than positions, what you are each looking for instead of money | |
| | <i>Effective:</i> Asks you what your interests are and then indicates how he/she could meet them (e.g., relevant experience, quality of education, personal qualities) | <i>Ineffective:</i> Focuses on his/her own needs/wants, raises an interest you have expressed but fails to adequately describe how he/she can meet that interest, asks you about your interests but then fails to say anything about how he/she might meet them |
| If...Then | win-win, probation at higher salary, raise/bonus contingent on performance | |
| | <i>Effective:</i> Directly connects one of your expressed interests with one of their own, pairs up contingent interests that are of roughly equal value, uses this strategy when you express concern about his/her ability to follow through, or when you suggest that you "might" be able to provide something | <i>Ineffective:</i> Pairs up contingent interests that are not of similar value, does not provide detail about the specific agreement desired |
| Unique Features | value of special qualities (e.g., special training or experience, able to counsel others) | |
| | <i>Effective:</i> Points out special qualities (that can't be held back) and describes why they are worth compensation | <i>Ineffective:</i> Points out special qualities but does not directly connect them to your interests or make clear why they deserve compensation |

| | | | |
|---|-----------------------|--|--|
| Seek & Grant Compensatory Offers | Their Weakness | balancing weaknesses with gains, throwing in something extra <i>Effective:</i> Offers something to compensate for a weakness of theirs, when you have pointed out a weakness of theirs | <i>Ineffective:</i> Offers something as compensation to you that has little to no benefit to you, uses this strategy to compensate for a weakness of theirs that you have not raised |
| | Your Weakness | Asks you to compensate for a weakness of yours by requesting something that you have control over and that won't cost you much, uses this strategy when you have stated that you are not willing to go further in a certain area or that you don't have control over a certain area | Requests that you compensate with something you can't control or is costly compared to what is being offered, uses this strategy before you have stated that you are not willing to go further or don't have control over an area |
| Negotiation Jujitsu | | sidestepping and reframing attacks, acknowledges correctness but moves discussion to underlying issue, turns into a strength <i>Effective:</i> Agrees calmly with your attack or criticism and turns it into a positive that appeals to your interests, uses this strategy as soon as you point out the weakness | <i>Ineffective:</i> Debates the weakness first, then later agrees, agrees about the weakness but fails to convincingly show how it is a positive, agrees too enthusiastically with your attack ("you are absolutely right") |
| | | | |
| Maintain Silence | | 10 seconds without saying anything <i>Effective:</i> Maintains eye contact and serious expression, uses silence after you have said something unreasonable or responded to a question inadequately | <i>Ineffective:</i> Looks away or loses composure, remains silent for at least 10 seconds but then breaks the silence before you do |
| | | | |
| Broken Record | | repeats message when you don't listen <i>Effective:</i> Calmly but firmly repeats the message without getting irritated, angry, or loud; uses this strategy when you ignore what he/she has said and move to something else; persists until you respond to the message | <i>Ineffective:</i> Repeats the message but shows irritation, uses this strategy when you have already responded to what they said, repeats the message several times but then quits before you respond |
| | | | |
| Speak Up about Bad Behavior | | calls you on your non-verbal communication in a direct but polite way <i>Effective:</i> Calmly and tactfully calls you on your behavior, identifies principles that support what they want you to do, state directly what they request for you to do differently, enforce the demand by pointing out your behavior again when you persist, uses this strategy as soon as you show bad behavior | <i>Ineffective:</i> Calls you on your behavior in a confrontational, accusatory, or angry manner; points out your behavior but does not follow with a request for what you should do; makes a request to change the interaction but does not point out your bad behavior; fails to enforce the request to change behavior by giving in to you after you persist in behaving badly; makes the change request but then follows it with a threat; responds to you first and then points out bad behavior |
| | | | |

APPENDIX I

DEBRIEFING

The purpose of this experiment is to investigate how people respond to a training program and how well they are able to use what they learn in the training program. In particular, we are interested in how various training methods impact your responses to the training program and how well you are able to use the skills you learned. We assigned participants to a variety of training methods, asked you to answer some questions about yourself and your experience in the training, and asked you to participate in a simulation in which you had an opportunity to use the negotiation skills that were taught.

There was no deception involved in this experiment, but we cannot tell you now the specific variables we are investigating. If you wish to have more information about the details or results of this study, you may contact Karen Milner at 355-2171 or milnerka@msu.edu after data collection is complete (in 4-6 months). Individual results will not be available because we are looking only at aggregate data.

Thank you for participating!

APPENDIX J

MEASURES

Pre-Training Motivation Measure

Motivation to Learn Negotiation

Before we begin the negotiation training, think about how much it matters to you to learn negotiation skills. Please indicate how strongly you agree or disagree with each of these statements.

Desire

1. I am motivated to learn the negotiation skills emphasized in this training program.
2. I will try to learn as much as I can from the negotiation training.
3. I am interested in learning negotiation skills.
4. One reason I decided to attend today was to improve my negotiation skills.
5. I want to improve my negotiation skills.

Willingness to Invest Effort

6. I am willing to exert considerable effort to improve my negotiation skills.
7. I intend to work hard to learn the material in this training course.
8. I am going to put forth a lot of effort if needed to learn the material.
9. I intend to concentrate and try to learn the information in this training.
10. I intend to try my best in this training to become a good negotiator.
11. I am going to really try and learn the negotiation strategies and how to use them.

Post-Training Measures

Learning

To use the negotiation skills successfully, you need to understand when to use them and how to use them well. Check your understanding of when and how to use the negotiation skills you have learned. Fill in the correct response for each item below by describing the strategy you would use.

DO NOT simply fill in the name of the strategy – to successfully use these strategies, you need to remember more about them than just the name!

1. If your opponent does not hear or is not responsive to what you are saying, an effective way to deal with that would be to

Use the broken record technique by calmly but firmly repeating the same request over and over again, without getting irritated, angry, or loud.

2. There are two components of your “negotiation attitude.” Briefly describe both.

Appear confident by maintaining eye contact, not fidgeting, being calm, using a determined tone of voice, and using solid words. Express enthusiasm about interesting offers, but in a contained way so you don't weaken your position.

3. When you want to indicate to an opponent that what they said is too unreasonable to be considered, or if they have responded to a question inadequately, you should

Use silence by saying nothing for 10-15 seconds. At the same time, maintain eye contact and raise your eyebrows to show that the offer is ridiculous to you.

4. You believe your opponent is making excessive demands compared to the features of what he or she is offering. You can try to show this by.

Using a contrast effect. Present objective, factual information that shows that your offer is reasonable. Compare your offer to average similar offers to demonstrate that it is in the right ballpark.

5. Your opponent points out a real weakness in your position. To regain momentum in the negotiation, your best bet would be to respond by

Using negotiation jujitsu or fogging to sidestep the attack and avoid getting defensive and dug in to your position. This works by agreeing with the weakness but reframing it as a positive.

6. To successfully convince your opponent that he or she would like what you have to offer, you should

Appeal to your opponent's interests by taking their point of view. State the pros of your offer that are in line with their interests.

7. Your opponent is acting annoyed and angry with you and being rather insulting. The best response would be to

Make a direct tactful counter by calmly pointing out their behavior to show that you are aware that it is happening and are not afraid to address it. State what you want them to do and back it up with a principle.

8. Your opponent is very focused on talking exactly about what he or she wants and exactly what he or she is willing to give. Your best response is to

Draw attention to issues before resolutions by suggesting that there are other things to discuss before discussing positions. Convey that you are not yet willing to talk about a final solution before discussing the issues.

9. You are approaching the end of the negotiation. The person does not appear willing to budge on the area you've been discussing anymore. You might still make some gains by

Negotiating for compensatory offers. Try to the opponent to compensate for a weakness in their main offer by offering something of another type. Ask for concessions in other areas that are important to you and over which your opponent has some control.

10. When you are concerned that your opponent may not be able to come through on some aspect of the potential deal you are discussing, you should

Protect yourself by proposing contingent options for mutual gain. Link your offers to the ability of the other side to come through with their obligations in the agreement. They must fulfill their part in order for you to fulfill yours.

Coding Definitions for Learning Measure

0 = Blank answer

1 = Attitudinal Bargaining

Two parts necessary for full credit:

- (1) Confidence: eye contact, posture, direct words, tone of voice
- (2) Contained Enthusiasm: not aggressive, not wishy-washy, enthusiastic but not too much, poker face, not over excited, calm, not over emphasize emotions

2 = Contrast

Full credit: Research comparable standards, compare similar products, compare apples to apples, state the contrast, and know the ballpark

Partial credit: using the term research or contrast with nothing further

3 = Issues First

Full credit: Request to discuss issues before decision can be reached, some issues I'd like to discuss, before we get to that I have some questions

Partial credit: 'ask other questions'

4 = Target Opponent's Interests

Two parts necessary for full credit:

- (1) Emphasize opponent's interests: Ask opponent what is important, ask opponent what makes for a good employee, asks why opponent is not interested in something
- (2) State how you can meet interests or needs, match what you have to offer with what they want

5 = If...Then

Full credit: almost any example of an if...then situation as long as what each side will give is clear

Partial credit: If I give you blank than what will you give me, if you don't blank than I won't blank, states 'use if...then strategy' with nothing further

6 = Unique Features

Two parts necessary for full credit:

- (1) Name unique qualities, special qualities, highlight the features
- (2) Explain why worth compensation

Partial credit: states unique features with nothing further

7 = Compensatory Offers

Full credit: Compromises to make up for lack in one area by providing more in another area benefiting opponent, OR asks for compensation from opponent in an area opponent is lacking, gets opponent to throw in extra

Partial credit: the term compensation or seek and grant compensatory offers without further explanation

Compromise synonym for compensatory

8 = Jujitsu

Two parts necessary for full credit:

- (1) Admit to weakness or agree with criticism
- (2) Explain weakness is really a strength, or a positive, or an asset

Partial credit: explains weakness, makes excuses

9 = Silence

Two parts necessary for full credit:

- (1) Remain silent, long silence, 10 second silence, don't say anything
- (2) Maintain eye contact, stare at opponent, keep looking at opponent

10 = Broken Record

Full credit: Repeat calm but firmly, without becoming annoyed, without raising voice

Partial credit: 'use broken record strategy,' or 'repeat' with nothing further

11 = Counter Dirty Tricks

Two parts necessary for full credit:

- (1) Address behavior, point out bad behavior
- (2) Calmly, tactfully

Partial credit: ask to reschedule for another time, is this a bad time without pointing out opponent's misbehavior.

No credit if behavior is not addressed or is ignored.

12 = Answer given, but what they describe is not related to any of the strategies covered in training.

Self-Efficacy

Now that you have completed the negotiation training, how do you feel about your negotiation skills? Please indicate how strongly you agree or disagree with each of these statements.

1. Compared with other people in this training workshop, I expect to do well at negotiation.
2. I'm certain that I understand the negotiation ideas taught in this workshop.
3. I expect to do very well at negotiation.
4. Compared with others in this training workshop, I think I'm a good negotiator.
5. I'm sure I can do an excellent job in the negotiation simulation.
6. I think I will achieve a good outcome in the negotiation simulation.
7. My negotiation skills are excellent compared with others in this training workshop.
8. Compared with other people in this workshop, I think I know a great deal about negotiation.
9. I know that I will be able to use the negotiation skills from this workshop well.

Pre-Transfer Motivational Measures

Perceived Personal Relevance

The items below ask you to reflect on whether you feel that the training you received today is personally relevant to you. Please use the 5-point scale to indicate how strongly you agree or disagree with each item.

1. The negotiation skills I learned in this training workshop will help me be the kind of person I want to be.
2. The negotiation skills I learned in this training workshop will help me get the things I want out of life.
3. In my life, I will have many opportunities to use negotiation skills.
4. (R) Other people might need to know negotiation skills, but I don't see how I could use them.
5. I think negotiation skills can help me achieve goals and outcomes that are important to me.
6. I can think of interactions in my life where negotiation skills could help me get what I want.

Negotiation Competence Valuation

The items below ask you to reflect on how much you care about being good at negotiation. Please use the 5-point scale to indicate how strongly you agree or disagree with each item.

How much I care about being good at negotiation...

1. It is important to me to be good at negotiation.
2. Being a good negotiator is something I really value.
3. I want to have strong negotiation skills.
4. I really want to be a good negotiator.
5. I really value negotiation as something I want to be good at.
6. I care very much about how good I am at negotiation.

Self-Regulatory Focus

The items below ask you about what matters to you when you think about your negotiation skills. As you begin to use your skills, what will you be focusing on? Please use the 5-point scale to indicate how strongly you agree or disagree with each item.

Approach Focus (Mastery)

How much I will focus on mastering the negotiation strategies...

1. As I use my negotiation skills, I am going to focus on my personal growth in my ability to apply them.
2. I want to try to use my negotiation skills in ways that are challenging and difficult so I'll learn something new.
3. I am going to try to take advantage of opportunities to extend the range of my negotiation abilities.
4. As I use my negotiation skills, I am going to focus on learning new things about them.
5. I am going to try to use my negotiation skills in ways that are challenging rather than tried-and-true.

Approach Focus (Performance)

How much I will focus on getting what I want in negotiations...

6. When I think I am going to be able to successfully outperform my negotiation opponent, I hope someone will be able to see my negotiation.
7. As I use my negotiation skills, I am going to try hard to perform better than others.
8. I am going to talk about my negotiation successes with others.
9. As I use my negotiation skills, I will focus on proving my ability to my negotiation opponent.
10. I want to know that I am better than others at negotiation.

Approach Focus (active maximizing)

How much I'll focus on using my skills...

11. To achieve my negotiation goals, I will need to really concentrate on finding opportunities to use these skills.
12. To achieve my negotiation goals, I will need to make sure I act on opportunities to use these skills so they don't pass me by.

Avoid Focus (Mastery)

How much I will focus on what I didn't learn...

13. When I start using my negotiation skills, I will be worried that I haven't learned all that I possibly could about the strategies.
14. As I use my negotiation skills, I will be concerned that I do not understand the negotiation skills as thoroughly as I'd like.
15. When I use my skills in real negotiations, I am going to be concerned about missing something important that would help me learn more about negotiation.

Avoid Focus (Performance)

How much I care about not getting what I want in negotiations...

16. During negotiations, I am not going to use skills that will show that others are better than me at negotiation.
17. It makes me anxious to know that my negotiation skills will be up against those of my opponent.
18. Knowing that my negotiation skills will be compared to those of others makes me nervous, so I will probably avoid using them.
19. When I start using my negotiation skills, I will be worried about finding out that others are better than me at negotiation.
20. I am reluctant to try out my negotiation skills because others may think I'm incompetent.

Avoid Focus (inactive minimizing)

How much I will focus on watching out for problems...

21. To achieve my negotiation goals, I will need to avoid falling back on my typical reactions in conflict situations.
22. I am going to focus on trying not to mess up when I use my new negotiation skills.

Implementation Intentions

The items below ask you about your plans for using the negotiation strategies. Please use the 5-point scale to indicate how strongly you agree or disagree with each item.

How much I've planned when to use each strategy...

1. I already know exactly when I will use my negotiation strategies during the coming week.

2. I have thought about particular situations during the coming week in which I might use the negotiation strategies.
3. For my negotiation simulation, I have planned which strategies I will use.
4. For my negotiation simulation, I have planned when I will use each strategy I intend to use.
5. I have thought about specific opportunities I might have to use the negotiation strategies, and I intend to use them at those times.
6. When I get in a negotiation, I know that I will be very focused on using the strategies I learned today.

Goal Variety (Personal Life)

The questions below ask you about how many of the strategies you intend to try to use during the coming week, and how likely it is that you will use each strategy this week in a real negotiation in your life.

How likely is it that you will use each of the following skills during the coming week?

1. Negotiation Attitude (show confidence & contained enthusiasm)
2. Research & Objectivity (know the ballpark & state the contrast)
3. Issues before Resolutions (talk about interests before solutions)
4. Target Opponent's Interests (ask what they care about & tell how you meet it)
5. If...Then (create a win-win trade)
6. Unique Features (point out special qualities and tell why they are worth more)
7. Seek & Grant Compensatory Offers (make up for weakness with a different strength)
8. Negotiation Jujitsu (sidestep and reframe attacks into positives)
9. Be Silent (look at your opponent and wait for him or her to continue)
10. Broken Record (clearly state and repeat your message calmly)
11. Speak Up about Bad Behavior (point out aggressive or disrespectful behavior and state desires and principles)
12. How many of the 11 negotiation strategies do you think you will use during the coming week?

- a. None b. 1 – 3 c. 4 – 6 d. 7 – 9 e. 10 – 11

Goal Variety (Simulation)

The questions below ask you about how many of the strategies you intend to try to use during your negotiation simulation, and how likely it is that you will use each strategy during the simulation.

How likely is it that you will use each of the following skills during your negotiation simulation?

1. Negotiation Attitude (show confidence & contained enthusiasm)
2. Research & Objectivity (know the ballpark & state the contrast)
3. Issues before Resolutions (talk about interests before solutions)
4. Target Opponent's Interests (ask what they care about & tell how you meet it)
5. If...Then (create a win-win trade)
6. Unique Features (point out special qualities and tell why they are worth more)
7. Seek & Grant Compensatory Offers (make up for weakness with a different strength)
8. Negotiation Jujitsu (sidestep and reframe attacks into positives)
9. Be Silent (look at your opponent and wait for him or her to continue)
10. Broken Record (clearly state and repeat your message calmly)
11. Speak Up about Bad Behavior (point out aggressive or disrespectful behavior and state desires and principles)
12. How many of the 11 negotiation strategies do you think you will use during your negotiation simulation?
 - a. None
 - b. 1 – 3
 - c. 4 – 6
 - d. 7 – 9
 - e. 10 – 11

Pre-Simulation Measures

Negotiation Skill Use

Before we begin the negotiation, please give me some information about how much you have used the negotiation skills since you attended the training workshop about a week ago.

How much I've used my negotiation skills since the training...

1. Since attending the negotiation training workshop, how many negotiations have you engaged in? *(Count negotiations, not negotiation sessions. If you spoke with the same person about buying a particular car three times, count that as ONE negotiation. If you spoke with your roommate about three different issues, count them as THREE negotiations.)*

A. None B. One C. Two D. Three E. More than 3 negotiations

Now think about the strategies you used during those negotiations. How often did you use each of the following skills during your negotiations?

Answer this set of questions using the following responses.

A. None B. 1 time C. 2 times D. 3 times E. More than 3 times

13. Negotiation Attitude (show confidence & contained enthusiasm)
14. Research & Objectivity (know the ballpark & state the contrast)
15. Issues before Resolutions (talk about interests before solutions)
16. Target Opponent's Interests (ask what they care about & tell how you meet it)
17. If...Then (create a win-win trade)
18. Unique Features (point out special qualities and tell why they are worth more)
19. Seek & Grant Compensatory Offers (make up for weakness with a different strength)
20. Negotiation Jujitsu (sidestep and reframe attacks into positives)
21. Be Silent (look at your opponent and wait for him or her to continue)
22. Broken Record (clearly state and repeat your message calmly)
23. Speak Up about Bad Behavior (point out aggressive or disrespectful behavior and state desires and principles)

Negotiation Skill Effectiveness

Now that you've told me which negotiation strategies you tried to use, please give me some information about how well you thought you were able to use them overall. Please use the 5-point scale above to indicate how strongly you agree or disagree with each item. If you did not try to use any of the strategies, please skip these four questions & be sure to skip these items on your scan sheet.

1. Overall, I think I used the negotiation strategies effectively.
2. I think the trainer would have said that I used the strategies well.
3. My use of the negotiation strategies could be included in the negotiation training as examples of how to do the strategies well.
4. When I tried to use the negotiation strategies, I discovered that I need more practice to be able to do them well.

Negotiation Behavior & Quality Checklist

Start Time: _____ End Time: _____ Final Salary (w Bonus): \$ _____

| | | Effective Attempts (+1000) | Ineffective Attempts (stay) |
|--|--------------|----------------------------|-----------------------------|
| (starting offer) | 42000 | _____ | _____ |
| (What salary are you looking for? - IF) | 43000 | _____ | _____ |
| | 44000 | _____ | _____ |
| (evaluate & record Negotiation Attitude) | 45000 | _____ | _____ |
| | 46000 | _____ | _____ |
| (Point out shaky past 2 yrs & poor rec- J) | 47000 | _____ | _____ |
| (Tap pencil) | 48000 | _____ | _____ |
| (More than you're worth, crazy - D) | 49000 | _____ | _____ |
| (Pat told me about low level projects - J) | 50000 | _____ | _____ |
| (Ignore what they say - B) | 51000 | _____ | _____ |
| | 52000 | _____ | _____ |
| (Plenty of \$, you don't want to work - D) | 53000 | _____ | _____ |
| | 54000 | _____ | _____ |
| (Ignore what they say - B) | 55000 | _____ | _____ |
| | 56000 | _____ | _____ |
| | 57000 | _____ | _____ |
| | 58000 | _____ | _____ |
| | 59000 | _____ | _____ |
| (maximum offer; compute bonus points) | 60000 | _____ | _____ |

Bonus Points (worth \$1000 each at end of negotiation):

- _____ Premium Insurance
- _____ Moving Expenses
- _____ Extra Vacation Days
- _____ Other _____
- _____ Negotiation Attitude at end of negotiation (A)

Strategies:

- Contrast (C)
- Talking about Interests (Int)
- If... Then (If/T)
- Unique Features Worth (U)
- Compensatory Offers (CO)

Prompted Strategies:

- Issues First (Issues)
- Silence (S)
- Broken Record (B)
- Direct Counter (D)
- Jujitsu (J)

Post-Transfer Measures

Situational Cueing

The items below ask you about how easy you thought it was to remember the negotiation strategies while you were negotiating. Please use the 5-point scale to indicate how strongly you agree or disagree with each item.

1. Certain things that happened in my life this week made me think of particular negotiation strategies I learned in the training.
2. (R) When I got into a real negotiation this past week, I had trouble thinking of specific negotiation strategies I could use. *(Please leave this item blank if you did not have any negotiations, and be sure to skip it on your scan sheet.)*
3. Certain things that happened during the negotiation simulation made me think of particular negotiation strategies I learned in the training.
4. (R) During the negotiation simulation, I had difficulty thinking of the specific negotiation strategies taught in the workshop
5. As soon as the first opportunity came up in the negotiation simulation, I knew which strategy I wanted to use.
6. (R) I often had to stop and think about which strategy to use during the negotiation simulation.

Perceptions of Transfer Goal Accomplishment

Now that you have finished your negotiation simulation, please indicate the extent to which you feel you accomplished your goals for using negotiation strategies during the simulation.

1. To what extent do you feel you accomplished your goals for using the negotiation skills during the simulation? *(Please choose the ONE statement that best represents your response and mark it on the Scan Sheet.)*
 - a. I did not have any goals for using the negotiation strategies during the simulation.
 - b. I had strategies I wanted to try to use during the simulation in mind, but I did not use any of them.
 - c. I accomplished some of my goals concerning strategies I wanted to try to use during the simulation.
 - d. I fully accomplished all of my goals concerning strategies I wanted to try to use during the simulation.

Demographics

The next set of items asks you to describe certain characteristics about yourself so that I can provide an overall description of my research sample.

1. Gender

- a. Male b. Female

2. Age

- a. Less than 18 b. 18 – 19 c. 20 – 21 d. 22 – 23 e. 24 or older

3. Year in college

- a. First year b. Sophomore c. Junior d. Senior e. Other

APPENDIX K

MEASUREMENT PILOT PROCEDURE AND RESULTS

PLEASE HELP ME CLEAN UP MY MEASURES!!!

My goal: Try to uncover some of the motivational processes that are important in training transfer.

Problem: The processes I'm looking at aren't neat and clean, and there are few validated measures to help me examine them. I'm afraid that everything in the middle of my model between my intervention and transfer behavior is going to end up in one big messy lump!

Please help me make my scales as distinct as possible before I collect my data! This should only take about 10 minutes. Please return to me by **FRIDAY, JANUARY 25**.

1. Read the six construct definitions below.
2. For each item, circle the construct(s) you think it represents. Try to respond somewhere between "forced choice" and "all that apply." If an item sounds mostly like a single construct to you, just circle that construct, even if it sounds a little bit like one or more of the others. But if you're really stuck on an item, circle the constructs you're confused between. I will be looking for these confusing items plus items people assign differently from what I intended to try to clean up my scales.
3. If you have any questions, I'm almost always on email during the day milnerka@msu.edu.

THANK YOU!!

Construct Definitions

Motivation to Learn – Prior to training, how much people desire to learn about a particular topic and the extent to which they are willing to invest effort in learning about the topic.

Self-Efficacy – After training, people's subjective judgment of whether they can successfully perform the behaviors learned in training to achieve desired outcomes.

Personal Relevance – After training, the extent to which people believe that what they learned in training is relevant to their own personal goals and sense of self.

Competence Valuation – After training, the degree to which people feel that achieving competence in the trained skills is important to them.

Approach Self-Regulatory Focus – When planning skill transfer, the direction of strategies to be used to pursue transfer goals. Approach focus involves acting to move toward a desired goal or away from an undesired goal.

Avoid Self-Regulatory Focus - When planning skill transfer, the direction of strategies to be used to pursue transfer goals. Avoid focus involves NOT acting to move away from an undesired goal or toward a desired goal.

Decision Criteria

- For the scales established in prior research (motivation to learn and self-efficacy), no more than 5 raters placed at least one vote on an unintended scale. The wording for these items and scale structure was preserved. For motivation to learn, one item had 5 votes on other scales, 2 items had 2 misvotes, 5 items had 1 misvote, and 3 items had zero misvotes. Administration of the motivation to learn measure prior to training is expected to further minimize confusion between this scale and other post-training scales. For self-efficacy, one item had 4 misvotes, 4 items had 2 misvotes, 1 item had 1 misvote, and 3 items had zero misvotes.
- For the remaining scales...
- All items with 6 or more misvotes were either reworded or switched to the dominant-vote scale. Several items with fewer than six misvotes were also reworded to improve clarity and distinction among the constructs being tapped.
- Several items were deleted completely due to large number of misvotes and difficulty clarifying content without overlapping other items.
- For approach/avoid, preference was for rewording rather than deleting due to basis on established scale. Many revisions were made to focus items more on strategy level.

Revised Scales

Results from 14 "expert" respondents. Frequency of identification of each item on the six scales.

Shaded box indicates intended scale.

Bold text indicates scale items were assigned to based on expert ratings and content.

Italic text indicates items deleted based on unclear links to a single construct.

Rewording indicated under original item wording.

| | Motivation to Learn | Self- Efficacy | Personal Relevance | Competence Valuation | SR Focus Approach | SR Focus Avoid |
|--|------------------------|-------------------|-----------------------|-------------------------|-------------------------|----------------------|
| 1. I am motivated to learn the negotiation skills emphasized in this training program | 14 | | | | | |
| 2. I will try to learn as much as I can from the negotiation training | 13 | | | | 1 | |
| 3. I am interested in learning negotiation skills | 14 | | | | | |
| 4. One reason I decided to attend today is to improve my negotiation skills | 9 | | 2 | 3 | | |
| 5. I want to improve my negotiation skills | 13 | | | 1 | 1 | |
| 6. I am willing to exert considerable effort to improve my negotiation skills | 13 | | | | 1 | |
| 7. I intend to work hard to learn the material in this training course | 13 | | | | 1 | |
| 8. I am going to put forth a lot of effort if needed to learn the material | 13 | | | | 1 | |
| 9. I intend to concentrate and try to learn the information in this training | 14 | | | | | |
| 10. I intend to try my best in this training to become a good negotiator | 13 | | | | 1 | |
| 11. I am going to really try and learn the negotiation strategies and how to use them | 12 | | | | 2 | |
| 12. Compared with other people in this training workshop, I expect to do well at negotiation | | 12 | | 2 | | |

| | Motivation to Learn | Self- Efficacy | Personal Relevance | Competence Valuation | SR Focus Approach | SR Focus Avoid |
|---|------------------------|-------------------|-----------------------|-------------------------|-------------------------|----------------------|
| 13. I'm certain that I understand the negotiation ideas taught in this workshop | 1 | 12 | | 1 | | |
| 14. I expect to do very well at negotiation | | 14 | | | | |
| 15. Compared with others in this training workshop, I think I'm a good negotiator | | 12 | | 2 | | |
| 16. I'm sure I can do an excellent job in the negotiation simulation | | 14 | | | | |
| 17. I think I will achieve a good outcome in the negotiation simulation | | 13 | | | | |
| 18. My negotiation skills are excellent compared with others in this training workshop | | 12 | | 2 | | |
| 19. Compared with other people in this workshop, I think I know a great deal about negotiation | | 12 | | 1 | | |
| 20. I know that I will be able to use the negotiation skills from this workshop well | | 11 | 3 | 1 | | |
| 21. The negotiation skills I learned in this training workshop will help me be the kind of person I want to be | | | 14 | 1 | | |
| 22. The negotiation skills I learned in this training workshop will help me get the things I want out of life | | | 13 | 3 | | |
| 23. Negotiation skills are something I could use often Reword: In my life, I will have many opportunities to use negotiation skills. | | 1 | 9 | 6 | 1 | |
| 24. <i>I can already think of ways that I could use the negotiation skills I learned today</i> | | 1 | 5 | 2 | 7 | |
| 25. (R) Negotiation skills are fine, but I don't see how I could use them Reword: Other people might need to know negotiation skills, but I don't see how I could use them | | 1 | 10 | 4 | | |

| | Motivation to Learn | Self- Efficacy | Personal Relevance | Competence Valuation | SR Focus Approach | SR Focus Avoid |
|---|------------------------|-------------------|-----------------------|-------------------------|-------------------------|----------------------|
| 26. <i>I think these negotiation skills will be useful to me</i> | | | 10 | 6 | | |
| 27. I think negotiation skills can help me achieve goals and outcomes that are important to me | | | 11 | 4 | | |
| 28. Negotiation skills will clearly be useful for helping me get the things I want in life Switch scale. Reword: I can think of interactions in my life where negotiation skills could help me get what I want. | | | 13 | 2 | | |
| 29. It is important to me to be good at negotiation Test within set of items. | | | 9 | 9 | | |
| 30. Being a good negotiator will help me feel good about myself Reword: Being a good negotiator is something I really value. | | | 13 | 2 | | |
| 31. I think that negotiation skills are good to have Reword: I want to have strong negotiation skills. | 1 | | 6 | 8 | | |
| 32. <i>One reason I decided to participate in this experiment is because I want to be good at negotiation</i> | 8 | | 3 | 5 | 1 | |
| 33. I will probably continue to take advantage of opportunities to improve my negotiation skills because I really want to be a good negotiator Reword: I really want to be a good negotiator | 2 | | 1 | 5 | 10 | |
| 34. <i>I will be disappointed in myself if I don't become good at negotiation</i> | 1 | 1 | 7 | 3 | 1 | 1 |
| 35. I really value negotiation as something I want to be good at OK because timing will separate from motivation to learn. | 3 | | 3 | 11 | | |
| 36. I care very much about how good I am at negotiation | 1 | | 4 | 10 | | |

| | Motivation to Learn | Self- Efficacy | Personal Relevance | Competence Valuation | SR Focus Approach | SR Focus Avoid |
|--|------------------------|-------------------|-----------------------|-------------------------|-------------------------|----------------------|
| 37. <i>If I don't use these negotiation skills, I will have a lower chance of having the kind of life I want</i> | | | 13 | 2 | | 1 |
| 38. I think using these negotiation skills will help me grow Reword: As I use my negotiation skills, I am going to focus on my personal growth in my ability to apply them. | | | 13 | 2 | | |
| 39. I will enjoy the challenge and difficulty of using my new negotiation skills Reword: I want to try to use my negotiation skills in ways that are challenging and difficult so I'll learn something new. | 1 | 2 | 1 | 2 | 8 | |
| 40. I will enjoy the opportunity to extend the range of my negotiation abilities Reword: I am going to try to take advantage of opportunities to extend the range of my negotiation abilities. | 6 | | 1 | 3 | 5 | |
| 41. The opportunity to learn new things about negotiation is important to me Reword: As I use my negotiation skills, I am going to focus on learning new things about them. | 6 | | 2 | 4 | 2 | |
| 42. The opportunity to face negotiation challenges is important to me Reword: I am going to try to use my negotiation skills in ways that are challenging rather than tried-and-true. | 1 | | 3 | 5 | 5 | |
| 43. It will make me feel good to have others know that I outperformed my negotiation opponent Reword: When I think I am going to be able to successfully outperform my negotiation opponent, I hope someone will be able to see my negotiation. | | 1 | 2 | 6 | 3 | |
| 44. It is important to me to perform better than others in negotiation Reword: As I use my negotiation skills, I am going to try hard to perform better than others. | | 1 | 1 | 7 | 3 | |

| | Motivation to Learn | Self- Efficacy | Personal Relevance | Competence Valuation | SR Focus Approach | SR Focus Avoid |
|---|------------------------|-------------------|-----------------------|-------------------------|-------------------------|----------------------|
| <p>45. I want others to recognize that I am one of the best negotiators</p> <p>Reward: I am going to talk about my negotiation successes with others.</p> | | | 1 | 10 | 2 | |
| <p>46. I will enjoy proving my ability to my negotiation opponent</p> <p>Reward: As I use my negotiation skills, I will focus on proving my ability to my negotiation opponent.</p> | 1 | 1 | 2 | 4 | 6 | |
| <p>47. I will feel good when I can prove to myself that I am better than others at negotiation</p> <p>Reward: I am going to pay attention to how others negotiate so I can prove to myself that I am better than others at negotiation.</p> | | | 3 | 6 | 4 | |
| <p>48. To achieve my negotiation goals, I will need to really concentrate on finding opportunities to use these skills</p> | | 1 | | | 13 | |
| <p>49. To achieve my negotiation goals, I will need to make sure I don't miss opportunities to use these skills</p> <p>Reward: To achieve my negotiation goals, I will need to make sure I act on opportunities to use these skills so they don't pass me by.</p> | 1 | | | | 11 | 2 |
| <p>50. I am worried that I may not have learned all that I possibly could about the negotiation skills</p> <p>Reward: When I start using my negotiation skills, I will be worried that I haven't learned all that I possibly could about the strategies.</p> | 2 | 10 | | 2 | | |
| <p>51. Now that I'm thinking about how to use them, I realize that I do not understand the negotiation skills as thoroughly as I'd like</p> <p>Reward: As I use my negotiation skills, I will be concerned that I do not understand the negotiation skills as</p> | | 11 | | 4 | | |

| | Motivation to Learn | Self- Efficacy | Personal Relevance | Competence Valuation | SR Focus Approach | SR Focus Avoid |
|--|------------------------|-------------------|-----------------------|-------------------------|-------------------------|----------------------|
| thoroughly as I'd like | | | | | | |
| <p>52. I am concerned that I may not have learned all there is to learn about the negotiation skills</p> <p>Reword: When I use my skills in real negotiations, I am going to be concerned about missing something important that would help me learn more about negotiation.</p> | 1 | 11 | | 1 | | 1 |
| <p>53. I don't want others to see that others are better than me at negotiation</p> <p>Reword: During negotiations, I am not going to use skills that will show that others are better than me at negotiation.</p> | | 1 | | 4 | | 7 |
| <p>54. It makes me anxious to know that my negotiation skills will be compared against those of my opponent</p> <p>Reword: It makes me anxious to know that my negotiation skills will be up against those of my opponent.</p> | | 3 | | 3 | | 6 |
| <p>55. Knowing that my negotiation skills will be compared to those of others makes me so nervous that I will avoid using them</p> | | 1 | | | | 13 |
| <p>56. I don't want to find out that others are better than me at negotiation</p> <p>Reword: When I start using my negotiation skills, I will be worried about finding out that others are better than me at negotiation.</p> | | 1 | 1 | 3 | | 9 |
| <p>57. I am reluctant to try out my negotiation skills because others may think I'm incompetent</p> | | 2 | | | | 13 |
| <p>58. To achieve my negotiation goals, I will need to make sure I don't fall back on my typical reactions in conflict situations</p> <p>Reword: To achieve my negotiation goals, I will need to avoid falling back on my typical reactions in conflict situations.</p> | | | | | 6 | 8 |

| | Motivation to Learn | Self- Efficacy | Personal Relevance | Competence Valuation | SR Focus Approach | SR Focus Avoid |
|---|------------------------|-------------------|-----------------------|-------------------------|-------------------------|----------------------|
| <p>59. To achieve my negotiation goals, I will need to make sure I don't mess up when I try to use these new skills</p> <p>Reword: I am going to focus on trying not to mess up when I use my new negotiation skills.</p> | | 1 | | 2 | 3 | 8 |

APPENDIX L

FACTOR ANALYSES

Table L1

Oblique Rotated Factor Pattern and Communalities for Perceived Personal Relevance (PR) and Competence Valuation (CV)

| Item | Factor 1 | Factor 2 | h^2 |
|---------------------------|----------|----------|-------|
| CV 28 | .92 * | -.06 | .78 |
| CV 32 | .89 * | -.07 | .73 |
| CV 31 | .88 * | .03 | .81 |
| CV 30 | .80 * | .10 | .74 |
| CV 27 | .76 * | .12 | .71 |
| CV 29 | .62 * | .23 | .62 |
| PR 25 | .06 | .76 * | .64 |
| PR 23 | -.05 | .74 * | .50 |
| PR 26 | .01 | .67 * | .46 |
| PR 22 | .18 | .63 * | .57 |
| PR 21 | .24 | .51 * | .46 |
| PR 24 | .02 | .41 * | .18 |
| Variance Explained | 82% | 14% | |
| Inter-Factor Correlations | | | |
| Factor 1 | | .60 | |

* Factor loadings > .32 (10% overlapping variance) are marked with an asterisk.

Table L2

Oblique Rotated Factor Pattern and Communalities for Self-Regulatory Focus and Goal Variety

| Item ^a | Factor 1 | Factor 2 | Factor 3 ^b | Factor 4 | Factor 5 | Factor 6 ^c | h^2 |
|-------------------|----------|----------|-----------------------|----------|----------|-----------------------|-------|
| GVS 78 | .76 * | -.05 | -.04 | -.01 | .01 | -.04 | .57 |
| GVS 73 | .76 * | -.05 | -.03 | .00 | .01 | .05 | .57 |
| GVS 79 | .71 * | .01 | -.05 | .05 | -.04 | .18 | .53 |
| GVS 76 | .69 * | -.02 | -.04 | -.14 | .16 | .02 | .54 |
| GVS 75 | .68 * | .01 | .00 | .07 | .03 | -.05 | .52 |
| GVS 80 | .59 * | .04 | -.07 | .27 | -.04 | .05 | .47 |
| GVS 77 | .57 * | -.03 | -.01 | -.01 | .02 | -.06 | .33 |
| GVS 74 | .54 * | -.07 | .07 | .13 | .04 | .06 | .46 |
| AVD 53 | .29 | .23 | .20 | -.07 | .01 | -.11 | .21 |
| AVD 45 | -.10 | .82 * | .06 | .06 | .15 | -.04 | .68 |
| AVD 46 | -.07 | .78 * | .04 | .07 | .05 | -.07 | .61 |
| AVD 47 | -.03 | .75 * | .10 | -.06 | .13 | -.05 | .59 |
| AVD 51 | .11 | .70 * | -.13 | .00 | -.06 | .18 | .55 |
| AVD 50 | -.11 | .65 * | -.15 | .10 | -.09 | -.02 | .47 |
| AVD 49 | .07 | .64 * | .03 | -.09 | .01 | .12 | .46 |
| AVD 52 | -.07 | .63 * | -.15 | -.08 | -.13 | -.03 | .51 |
| AVD 54 | .30 | .43 * | .19 | .03 | -.14 | .02 | .32 |
| APPR 34 | -.08 | -.07 | .75 * | .01 | .05 | .05 | .57 |
| APPR 35 | .02 | -.08 | .74 * | -.04 | .01 | .03 | .56 |
| APPR 37 | -.03 | -.06 | .73 * | -.05 | .03 | -.07 | .51 |
| APPR 36 | -.08 | -.01 | .70 * | .00 | .09 | -.05 | .51 |
| APPR 44 | .04 | .07 | .58 * | .08 | -.19 | .30 | .45 |
| APPR 33 | .17 | .07 | .57 * | .07 | .11 | -.11 | .54 |
| APPR 43 | -.03 | .21 | .50 * | .10 | -.25 | .29 | .39 |
| GVS 82 | -.01 | -.06 | .01 | .76 * | -.09 | .02 | .55 |
| GVS 81 | .09 | .09 | -.02 | .70 * | -.03 | -.09 | .50 |
| GVW 70 | -.14 | .03 | .12 | .66 * | .17 | .11 | .56 |
| GVS 83 | .11 | -.12 | -.04 | .63 * | .07 | -.12 | .52 |
| GVW 69 | -.02 | .11 | -.02 | .61 * | .10 | -.11 | .39 |
| GVW 71 | .12 | -.04 | .03 | .57 * | .11 | -.06 | .47 |
| GVW 67 | .06 | .07 | -.06 | .07 | .67 * | .14 | .55 |
| GVW 66 | .02 | .09 | -.05 | .00 | .65 * | .17 | .48 |
| GVW 61 | .11 | -.08 | -.01 | .05 | .60 * | .10 | .50 |
| GVW 68 | .03 | -.01 | -.10 | .27 | .55 * | .03 | .46 |
| GVW 62 | -.11 | -.20 | .16 | .10 | .54 * | .08 | .43 |
| GVW 63 | .26 | .11 | .14 | -.07 | .49 * | -.11 | .50 |
| GVW 65 | .22 | .02 | .05 | .04 | .42 * | .03 | .38 |
| GVW 64 | .32 | .07 | .30 | -.16 | .38 * | -.19 | .56 |
| APPR 42 | -.03 | .01 | -.01 | -.10 | .06 | .74 * | .55 |
| APPR 41 | .02 | -.07 | .07 | -.04 | -.01 | .69 * | .49 |
| APPR 39 | .07 | -.10 | .10 | -.02 | .20 | .61 * | .50 |
| APPR 38 | -.02 | .04 | -.07 | -.03 | .18 | .54 * | .32 |
| APPR 40 | -.03 | .15 | -.11 | -.01 | .27 | .48 * | .32 |
| AVD 48 | .06 | .05 | .10 | -.08 | -.11 | .18 | .06 |

| Item ^a | Factor 1 | Factor 2 | Factor 3 ^b | Factor 4 | Factor 5 | Factor 6 ^c | h^2 |
|---------------------------|----------|----------|-----------------------|----------|----------|-----------------------|-------|
| Variance Explained | 35% | 16% | 10% | 9% | 8% | 5% | |
| Inter-Factor Correlations | | | | | | | |
| Factor 1 | | -.03 | .39 | .35 | .51 | .09 | |
| Factor 2 | | | .04 | -.11 | -.04 | .07 | |
| Factor 3 | | | | .23 | .39 | .12 | |
| Factor 4 | | | | | .35 | .11 | |
| Factor 5 | | | | | | .11 | |

^a The two intended factors for self-regulatory focus were approach (APPR) and avoid (AVD). The two intended factors for goal variety were goals for negotiations during the week following training in personal life (GVW) and goals for the negotiation simulation (GVS).

^b Approach-mastery.

^c Approach-performance.

* Factor loadings > .32 (10% overlapping variance) are marked with an asterisk.

Table L3

Oblique Rotated Factor Pattern and Communalities for Implementation Intentions (II) and Situational Cueing (SC)

| Item | Factor 1 | Factor 2 | h^2 |
|---------------------------|----------|----------|-------|
| II 57 | .70 * | .02 | .49 |
| II 55 | .69 * | .05 | .47 |
| II 58 | .65 * | -.14 | .44 |
| II 59 | .59 * | -.07 | .36 |
| II 56 | .58 * | -.01 | .34 |
| II 60 | .37 * | .05 | .14 |
| SC 17 | .37 * | .31 | .23 |
| SC 20 | .00 | .69 * | .47 |
| SC 21 | .12 | .57 * | .33 |
| SC 22 | -.18 | .55 * | .34 |
| SC 18 | -.06 | .47 * | .23 |
| SC 19 | .29 | .33 * | .19 |
| Variance Explained | 56% | 35% | |
| Inter-Factor Correlations | | | |
| Factor 1 | | -.03 | |

* Factor loadings > .32 (10% overlapping variance) are marked with an asterisk.

Table L4

Oblique Rotated Factor Pattern and Communalities for Target Motivational Constructs

| Item ^a | Factor 1 | Factor 2 | Factor 3 | Factor 4 | Factor 5 ^b | Factor 6 ^c | Factor 7 | <i>h</i> ² |
|-------------------|-------------|-------------|-------------|-------------|--------------------------|--------------------------|-------------|-----------------------|
| MOT 10 | .84 * | -.13 | -.19 | .19 | -.09 | .07 | .07 | .77 |
| MOT 11 | .80 * | -.10 | -.07 | .19 | -.04 | .05 | .01 | .71 |
| MOT 7 | .77 * | -.13 | -.11 | -.10 | .19 | -.03 | -.04 | .62 |
| MOT 9 | .76 * | -.12 | -.10 | .20 | -.03 | .03 | -.03 | .64 |
| MOT 6 | .74 * | -.10 | -.14 | -.11 | .13 | .03 | .03 | .55 |
| MOT 1 | .73 * | .25 | .22 | -.12 | -.04 | -.10 | .07 | .69 |
| MOT 5 | .73 * | .15 | .18 | .04 | -.08 | .00 | -.09 | .58 |
| MOT 3 | .70 * | .16 | .14 | .10 | -.06 | -.02 | .05 | .63 |
| MOT 2 | .70 * | .00 | .09 | .27 | -.06 | .08 | .01 | .65 |
| MOT 8 | .69 * | -.07 | -.16 | -.15 | .29 | -.09 | -.05 | .60 |
| MOT 4 | .41 * | .26 | .15 | -.27 | .20 | -.01 | .06 | .41 |
| SE 18 | .11 | .80 * | -.02 | -.19 | -.06 | .12 | .03 | .69 |
| SE 16 | -.02 | .75 * | -.16 | .02 | -.02 | .05 | .07 | .69 |
| SE 15 | -.02 | .75 * | .00 | -.01 | .10 | .11 | -.12 | .61 |
| SE 12 | -.10 | .72 * | -.15 | .11 | -.08 | .09 | -.01 | .61 |
| SE 17 | .06 | .71 * | -.07 | .14 | -.02 | -.03 | .11 | .64 |
| SE 19 | .12 | .69 * | .02 | -.17 | .10 | .19 | -.01 | .60 |
| SE 14 | -.07 | .63 * | -.22 | .14 | .01 | .10 | .08 | .62 |
| SE 20 | -.13 | .57 * | -.10 | .22 | .01 | -.03 | .16 | .50 |
| SE 13 | -.12 | .38 * | -.14 | .27 | .12 | -.16 | .12 | .39 |
| AVD 45 | -.06 | -.01 | .85 * | .04 | .10 | -.01 | -.11 | .73 |
| AVD 46 | -.05 | -.05 | .83 * | .14 | .04 | -.07 | -.11 | .70 |
| AVD 47 | -.04 | -.03 | .82 * | .16 | .08 | -.04 | -.15 | .69 |
| AVD 51 | .00 | -.21 | .56 * | -.05 | -.04 | .21 | .16 | .52 |
| AVD 49 | .01 | -.16 | .55 * | .06 | .04 | .15 | .11 | .44 |
| AVD 52 | -.01 | -.26 | .49 * | -.13 | -.12 | -.01 | .13 | .44 |
| AVD 50 | .04 | -.34 * | .43 * | -.18 | -.07 | .04 | .17 | .47 |
| AVD 54 | .02 | -.12 | .36 * | .26 | .06 | .06 | .21 | .31 |
| PR 23 | .10 | .08 | .03 | .73 * | -.08 | .06 | -.26 | .59 |
| PR 26 | -.09 | .15 | .07 | .71 * | -.02 | -.14 | .03 | .52 |
| PR 25 | .09 | .10 | .08 | .66 * | .08 | -.02 | -.01 | .56 |
| PR 22 | .02 | -.01 | -.04 | .59 * | .24 | .15 | .05 | .57 |
| PR 21 | .01 | -.03 | .01 | .52 * | .31 | .08 | .05 | .51 |
| PR 24 | .10 | .03 | .01 | .50 * | -.10 | -.06 | -.13 | .26 |
| AVD 53 | -.03 | -.17 | .16 | .48 * | .05 | -.05 | .21 | .32 |
| II 60 | -.01 | .06 | .07 | .30 | .31 | -.07 | .19 | .36 |
| APPR 44 | -.08 | -.21 | -.08 | .17 | .67 * | .31 | -.05 | .55 |
| APPR 37 | .09 | .13 | .03 | .03 | .64 * | -.12 | -.07 | .52 |
| APPR 36 | .01 | .28 | .14 | .00 | .61 * | -.16 | .00 | .58 |
| APPR 35 | .17 | .05 | -.08 | .06 | .61 * | .00 | .05 | .56 |
| APPR 34 | .14 | .24 | .05 | -.05 | .57 * | -.02 | .02 | .56 |
| APPR 43 | -.02 | -.18 | .11 | -.05 | .53 * | .27 | .05 | .38 |
| APPR 33 | .17 | .13 | .13 | .29 | .38 * | -.08 | .04 | .52 |

(table continues on next page)

| Item ^a | Factor 1 | Factor 2 | Factor 3 | Factor 4 | Factor 5 ^b | Factor 6 ^c | Factor 7 | <i>h</i> ² |
|------------------------------|-------------|-------------|-------------|-------------|--------------------------|--------------------------|-------------|-----------------------|
| APPR 42 | -.02 | .15 | .08 | -.16 | .09 | .74 * | -.11 | .61 |
| APPR 41 | -.14 | .08 | -.06 | -.01 | .11 | .66 * | .05 | .51 |
| APPR 39 | -.05 | .19 | -.01 | .18 | .09 | .58 * | -.03 | .49 |
| APPR 38 | .09 | .15 | .10 | -.06 | -.10 | .53 * | .00 | .33 |
| APPR 40 | .07 | .15 | .21 | .02 | -.17 | .51 * | .07 | .36 |
| AVD 48 | .07 | -.08 | -.07 | -.01 | .05 | .23 | .06 | .06 |
| II 58 | -.08 | .06 | .01 | -.17 | .00 | -.02 | .79 * | .62 |
| II 57 | .03 | .06 | -.01 | -.15 | .05 | -.03 | .75 * | .60 |
| II 55 | .00 | .10 | .04 | .00 | .04 | .04 | .58 * | .41 |
| II 59 | .06 | .00 | -.09 | .26 | .02 | -.05 | .50 * | .39 |
| II 56 | .11 | .01 | .01 | .22 | -.09 | .12 | .49 * | .37 |
| Variance Explained | 31% | 17% | 11% | 8% | 5% | 5% | 4% | |
| Inter-Factor Correlations | | | | | | | | |
| Factor 1 | | .21 | .10 | .29 | .36 | -.03 | .23 | |
| Factor 2 | | | -.26 | .21 | .34 | .14 | .22 | |
| Factor 3 | | | | -.06 | .08 | .11 | .09 | |
| Factor 4 | | | | | .35 | .09 | .13 | |
| Factor 5 | | | | | | .10 | .31 | |
| Factor 6 | | | | | | | .16 | |

^a The intended factors were motivation to learn (MOT), self-efficacy (SE), avoid self-regulatory focus (AVD), personal relevance (PR), implementation intentions (II), and approach self-regulatory focus (APPR).

^b Approach-mastery.

^c Approach-performance.

* Factor loadings > .32 (10% overlapping variance) are marked with an asterisk.

Table L5

Oblique Rotated Factor Pattern and Communalities for Mediating Motivational Constructs

| Item ^a | F1 | F2 | F3 | F4 | F5 ^b | F6 | F7 | F8 | <i>h</i> ² |
|-------------------|-------|-------|-------|-------|-----------------|------|------|-------|-----------------------|
| MOT 7 | .83 * | -.04 | -.06 | -.02 | .03 | .04 | .04 | -.10 | .65 |
| MOT 10 | .83 * | .03 | .15 | .00 | -.07 | -.07 | -.02 | -.08 | .73 |
| MOT 11 | .81 * | -.03 | .09 | -.01 | .01 | -.03 | .05 | .08 | .71 |
| MOT 8 | .81 * | .05 | -.12 | -.01 | -.03 | .04 | .09 | -.18 | .63 |
| MOT 6 | .80 * | -.04 | -.14 | .02 | .04 | .04 | .03 | -.05 | .60 |
| MOT 9 | .77 * | -.09 | .08 | .07 | .05 | -.05 | .08 | -.06 | .64 |
| MOT 2 | .66 * | -.02 | .20 | .07 | .04 | -.10 | -.04 | .16 | .65 |
| MOT 1 | .64 * | .10 | -.08 | -.06 | .04 | .05 | -.08 | .38 * | .68 |
| MOT 5 | .62 * | .00 | .07 | .02 | -.09 | -.02 | -.13 | .28 | .62 |
| MOT 3 | .60 * | .03 | .09 | .05 | -.01 | -.07 | -.10 | .37 * | .70 |
| SE 16 | .03 | .88 * | .10 | -.09 | -.03 | .01 | .03 | -.12 | .76 |
| SE 14 | -.02 | .82 * | -.01 | .04 | -.02 | -.02 | -.14 | -.15 | .62 |
| SE 18 | .07 | .81 * | -.05 | -.06 | .04 | -.07 | .01 | .07 | .66 |
| SE 12 | -.14 | .78 * | .08 | .03 | -.11 | -.01 | -.02 | .01 | .60 |
| SE 17 | .10 | .76 * | .16 | -.07 | -.03 | .03 | -.02 | .02 | .66 |
| SE 15 | -.01 | .70 * | -.08 | .00 | .07 | .11 | .00 | .11 | .58 |
| SE 19 | .09 | .64 * | -.14 | .09 | .02 | .02 | .12 | .16 | .55 |
| SE 20 | -.08 | .61 * | .03 | .10 | .06 | -.05 | .05 | .07 | .45 |
| SE 13 | -.06 | .40 * | .05 | .21 | .12 | -.17 | .10 | .05 | .28 |
| GVS 78 | .04 | .04 | .70 * | -.03 | .03 | .03 | .08 | -.03 | .53 |
| GVS 73 | -.04 | .17 | .70 * | .01 | -.01 | .01 | -.04 | .13 | .62 |
| GVS 76 | .02 | .02 | .69 * | .01 | -.11 | .14 | -.03 | -.13 | .54 |
| GVS 75 | .05 | .06 | .69 * | .00 | .03 | -.02 | -.03 | .05 | .55 |
| GVS 77 | .07 | -.14 | .67 * | -.05 | .04 | -.03 | .13 | -.06 | .42 |
| GVS 79 | .01 | .01 | .64 * | -.11 | .04 | .14 | .04 | .13 | .51 |
| GVS 80 | -.14 | -.03 | .53 * | .07 | .26 | .03 | -.04 | .09 | .49 |
| GVS 74 | -.05 | .12 | .52 * | .07 | .13 | .10 | -.01 | -.04 | .49 |
| CV 31 | .05 | .00 | -.12 | .92 * | .09 | -.03 | .02 | .12 | .85 |
| CV 30 | .03 | -.03 | .01 | .83 * | .05 | .01 | .01 | .08 | .76 |
| CV 28 | -.03 | .08 | -.09 | .83 * | -.03 | .12 | .00 | .04 | .77 |
| CV 27 | -.03 | .04 | .11 | .81 * | -.04 | -.03 | -.02 | .06 | .73 |
| CV 32 | .02 | .14 | -.03 | .80 * | -.13 | .07 | -.09 | .01 | .74 |
| CV 29 | .06 | -.05 | .08 | .77 * | .03 | -.05 | -.09 | -.03 | .63 |
| GVS 82 | -.07 | .03 | .06 | -.02 | .81 * | -.14 | -.06 | -.03 | .62 |
| GVS 81 | .08 | -.09 | .06 | -.14 | .71 * | -.01 | -.09 | .18 | .59 |
| GVS 83 | .04 | .11 | .09 | .02 | .64 * | .00 | .03 | -.15 | .51 |
| GVW 70 | .05 | .04 | -.13 | .05 | .63 * | .24 | .01 | -.06 | .55 |
| GVW 71 | .03 | .05 | .12 | .13 | .62 * | .06 | .09 | -.22 | .59 |
| GVW 69 | -.02 | -.04 | .00 | -.01 | .58 * | .06 | -.05 | .11 | .38 |

(table continues on next page)

| Item ^a | F1 | F2 | F3 | F4 | F5 ^b | F6 | F7 | F8 | <i>h</i> ² |
|---------------------------|-------|------|------|------|-----------------|-------|-------|-------|-----------------------|
| GVW 67 | -.13 | .02 | .14 | -.06 | -.02 | .70 * | .00 | .13 | .56 |
| GVW 66 | -.03 | -.12 | .09 | .00 | .00 | .64 * | -.04 | .08 | .46 |
| GVW 62 | .00 | .19 | -.09 | .02 | .09 | .60 * | .13 | -.11 | .50 |
| GVW 68 | -.11 | -.08 | .04 | -.01 | .24 | .60 * | .00 | .22 | .57 |
| GVW 61 | .05 | .11 | .12 | .00 | .02 | .57 * | -.11 | -.04 | .49 |
| GVW 63 | .16 | -.11 | .20 | .15 | -.09 | .53 * | -.06 | -.08 | .54 |
| GVW 64 | .09 | -.05 | .32 | .15 | -.16 | .40 * | .02 | .06 | .46 |
| GVW 65 | .07 | -.12 | .26 | .20 | .07 | .33 * | .00 | -.15 | .40 |
| SC 20 | .02 | .06 | .05 | -.04 | -.10 | .02 | .74 * | .21 | .54 |
| SC 21 | .07 | -.10 | .09 | .05 | -.01 | -.05 | .62 * | .46 * | .42 |
| SC 18 | .03 | .03 | .08 | -.13 | .06 | -.06 | .59 * | .08 | .34 |
| SC 22 | -.05 | .06 | -.10 | -.03 | -.05 | .02 | .58 * | .22 | .35 |
| SC 19 | -.03 | -.01 | .10 | .13 | -.07 | -.02 | .29 | .51 * | .30 |
| MOT 4 | .38 * | .14 | -.26 | -.06 | .07 | .19 | .05 | .47 * | .48 |
| SC 17 | -.11 | .05 | .03 | .13 | -.01 | .05 | .29 | .46 * | .26 |
| Variance Explained | 35% | 14% | 12% | 7% | 6% | 4% | 4% | 4% | 85% |
| Inter-Factor Correlations | | | | | | | | | |
| Factor 1 | | .15 | .27 | .35 | .09 | .17 | -.05 | .21 | |
| Factor 2 | | | .22 | .33 | .22 | .26 | .19 | .15 | |
| Factor 3 | | | | .40 | .33 | .44 | -.12 | .17 | |
| Factor 4 | | | | | .21 | .46 | -.01 | .14 | |
| Factor 5 | | | | | | .37 | -.10 | .10 | |
| Factor 6 | | | | | | | -.09 | .06 | |
| Factor 7 | | | | | | | | -.30 | |

^a The intended factors were motivation to learn (MOT), self-efficacy (SE), goal variety for the simulation (GVS), competence valuation (CV), goal variety for the week following training (GVW), and situational cueing (SC).

^b Goal variety for assertive strategies.

* Factor loadings > .32 (10% overlapping variance) are marked with an asterisk.

APPENDIX M

ANALYSIS PLAN

| Hypothesis | Test |
|--|--|
| <p><u>Hypothesis 1a.</u> Transfer behavior will be positively related to transfer performance. The extent to which people attempt to apply the trained skills will be positively related to their transfer performance scores.</p> <p><u>Hypothesis 1b.</u> Learning will moderate the relationship between transfer behavior and transfer performance, such that this relationship will be more positive when learning is high than when learning is low.</p> | <p>Hierarchical Regression:</p> <p>Transfer Performance = Negotiation Score Self-Assessment</p> <p>Motivation to Learn Learning (L) (STEP 1)</p> <p>Transfer Behavior (TB) TB x L (STEP 2) (STEP 3)</p> |
| <p><u>Hypothesis 2.</u> Self-efficacy will be positively related to the frequency and variety of transfer behavior.</p> <p><u>Hypothesis 3a.</u> Competence valuation for the training content will be positively related to frequency and variety of transfer behavior.</p> <p><u>Hypothesis 3b.</u> Transfer goal variety will be positively related to frequency and variety of transfer behavior.</p> <p><u>Hypothesis 3c.</u> Situational cueing of transfer skills will be positively related to frequency and variety of transfer behavior.</p> | <p>Hierarchical Regression:</p> <p>Transfer Behavior (Sum) = Personal Life Negotiation Frequency Variety Simulation Skill Attempts Frequency Variety</p> <p>Motivation to Learn Self-Efficacy (STEP 1)</p> <p>Competence Valuation Transfer Goal Variety Situational Cueing (STEP 2)</p> |

| Hypothesis | | Test | |
|--|--|---------------------------------|---|
| <u>Hypothesis 4.</u> Perceived personal relevance of trained skills will be positively related to competence valuation. | | Hierarchical Regression: | |
| | | Competence Valuation = | Motivation to Learn Perceived Personal Relevance (STEP 1) (STEP 2) |
| <u>Hypothesis 5.</u> Self-regulatory focus will significantly influence goal variety. An approach focus will be negatively related to goal variety. An avoid focus will be positively related to goal variety. | | Hierarchical Regression: | |
| | | Transfer Goal Variety = | Motivation to Learn Self-Regulatory Focus Approach Avoid (STEP 1) (STEP 2) |
| <u>Hypothesis 6.</u> Intentions to implement particular trained skills in particular situations will be positively related to situational cueing. | | Hierarchical Regression: | |
| | | Situational Cueing = | Motivation to Learn Implementation Intentions (STEP 1) (STEP 2) |

| Hypothesis | Test |
|--|--|
| <p>Hypothesis 7. People who participate in the experimental transfer motivation intervention, which incorporates forming connections to personal higher-order goals, will report higher perceived personal relevance of the training content than those who participate in a typical action planning intervention or receive training without a transfer intervention.</p> | <p>Hierarchical Regression:</p> <p>Perceived Personal Relevance = Motivation to Learn (STEP 1)</p> <p>Transfer Intervention Control (No Intervention) Control (Action Planning) Transfer Motivation (STEP 2)</p> <p>Contrast: Transfer Motivation Intervention vs. the two control conditions combined</p> |
| <p>Hypothesis 8a. People who participate in the experimental transfer motivation intervention, which incorporates setting approach goals and bounding avoid goals with approach goals, will report higher approach self-regulatory focus and lower avoid self-regulatory focus than those who participate in a typical action planning intervention or receive training without a transfer intervention.</p> <p>Hypothesis 8b. Because standard action planning interventions incorporate approach motivation to some degree, people who participate in action planning will report higher approach self-regulatory focus and lower avoid self-regulatory focus than those who receive training without a transfer intervention.</p> | <p>Hierarchical Regression:</p> <p>Self-Regulatory Focus = Approach Avoid Motivation to Learn (STEP 1)</p> <p>Transfer Intervention Control (No Intervention) Control (Action Planning) Transfer Motivation (STEP 2)</p> <p>Contrasts: Transfer Motivation Intervention vs. the two control conditions combined Action Planning Intervention vs. No Intervention</p> |
| <p>Hypothesis 9. People who participate in the experimental transfer motivation intervention, which incorporates connecting behavioral strategies to particular situations, will report stronger implementation intentions than those who participate in a typical action planning intervention or receive training without a transfer intervention.</p> | <p>Hierarchical Regression:</p> <p>Implementation Intentions = Motivation to Learn (STEP 1)</p> <p>Transfer Intervention Control (No Intervention) Control (Action Planning) Transfer Motivation (STEP 2)</p> <p>Contrast: Transfer Motivation Intervention vs. the two control conditions combined</p> |

| Hypothesis | Test |
|--|---|
| <p><u>Hypothesis 10a.</u> The experimental transfer motivation intervention will increase the frequency and variety of transfer attempts through perceived personal relevance.</p> | <p>Mediation Analysis (Hierarchical Regressions):</p> <p>IV → Mediator Analysis for Hypotheses 7, 8, and 9</p> |
| <p><u>Hypothesis 10b.</u> The experimental transfer motivation intervention will increase the frequency and variety of transfer attempts through self-regulatory focus.</p> | <p>Mediator → DV</p> <p>Transfer Behavior (Sum) = Motivation to Learn Self-Efficacy (STEP 1)</p> |
| <p><u>Hypothesis 10c.</u> The experimental transfer motivation intervention will increase the frequency and variety of transfer attempts through implementation intentions.</p> | <p>IV → DV</p> <p>Transfer Behavior (Sum) = Perceived Personal Relevance Self-Regulatory Focus Implementation Intentions (STEP 2)</p> |
| | <p>IV → DV</p> <p>Transfer Behavior (Sum) = Motivation to Learn Self-Efficacy (STEP 1)</p> |
| | <p>Transfer Intervention</p> <p>Control (No Intervention)</p> <p>Control (Action Planning)</p> <p>Transfer Motivation</p> <p>(STEP 2)</p> |
| | <p>IV → M → DV</p> <p>Transfer Behavior (Sum) = Motivation to Learn Self-Efficacy (STEP 1)</p> |
| | <p>Perceived Personal Relevance Self-Regulatory Focus Implementation Intentions</p> <p>(STEP 2)</p> |
| | <p>Transfer Intervention</p> <p>Control (No Intervention)</p> <p>Control (Action Planning)</p> <p>Transfer Motivation</p> <p>(STEP 3)</p> |

| Hypothesis | Test |
|--|---|
| <p><u>Hypothesis 11a.</u> Perceived personal relevance will be positively related to the frequency and variety of transfer attempts through competence valuation.</p> <p><u>Hypothesis 11b.</u> Approach self-regulatory focus will be positively related to the frequency and variety of transfer attempts through goal variety.</p> <p><u>Hypothesis 11c.</u> Implementation intentions will be positively related to the frequency and variety of transfer attempts through situational cueing.</p> | <p>Mediation Analysis (Hierarchical Regressions):</p> <p>IV → Mediator Analysis for Hypotheses 4, 5, and 6</p> <p>Mediator → DV Analyses for Hypotheses 3a, 3b, and 3c</p> <p>IV → DV Analyses for Hypotheses 10a, 10b, and 10c (Mediator → DV test)</p> <p>IV → M → DV =</p> <p>Transfer Behavior (Sum) Motivation to Learn Self-Efficacy (STEP 1)</p> <p> Competence Valuation (STEP 2)</p> <p> Transfer Goal Variety</p> <p> Situational Cueing</p> <p> Perceived Personal Relevance (STEP 3)</p> <p> Self-Regulatory Focus</p> <p> Implementation Intentions</p> |

APPENDIX N

SUPPLEMENTAL ANALYSIS RESULTS

Table N1

Analysis of Covariance: Effects of Transfer Motivation Intervention on Frequency of Transfer Behavior Attempts (Simulation)

| Source | <i>df</i> | <i>MS</i> | <i>F</i> |
|--------------------------|-----------|-----------|----------|
| Between persons | | | |
| Gender ^a | 1 | 46.92 | 4.82* |
| Motivation to Learn (M) | 1 | 8.45 | 0.87 |
| Self-Efficacy (SE) | 1 | 15.37 | 1.58 |
| Motivation Condition (C) | 2 | 11.47 | 1.18 |
| M x C | 2 | 5.20 | 0.53 |
| SE x C | 2 | 9.69 | 0.99 |
| Within persons | | | |
| Error | 176 | 9.75 | |

^a 0 = male, 1 = female.

* $p < .05$.

Table N2

Analysis of Covariance: Effects of Transfer Motivation Intervention on Variety of Transfer Behaviors Attempted (Simulation)

| Source | <i>df</i> | <i>MS</i> | <i>F</i> |
|--------------------------|-----------|-----------|----------|
| Between persons | | | |
| Motivation to Learn (M) | 1 | 1.95 | 0.67 |
| Self-Efficacy (SE) | 1 | 15.86 | 5.41* |
| Motivation Condition (C) | 2 | 7.66 | 2.61 |
| M x C | 2 | 3.20 | 1.09 |
| SE x C | 2 | 2.62 | 0.89 |
| Within persons | | | |
| Error | 180 | 2.93 | |

* $p < .05$.

Table N3

Analysis of Covariance: Effects of Transfer Motivation Intervention on Frequency of Transfer Behavior Attempts (Personal Life)

| Source | <i>df</i> | <i>MS</i> | <i>F</i> |
|--------------------------|-----------|-----------|----------|
| Between persons | | | |
| Number of Negotiations | 1 | 38.91 | 127.21* |
| Motivation to Learn (M) | 1 | 0.32 | 1.04 |
| Self-Efficacy (SE) | 1 | 0.98 | 3.21 |
| Motivation Condition (C) | 2 | 0.22 | 0.71 |
| M x C | 2 | 0.69 | 2.25 |
| SE x C | 2 | 0.35 | 1.15 |
| Within persons | | | |
| Error | 179 | 0.31 | |

* $p < .05$.

Table N4

Analysis of Covariance: Effects of Transfer Motivation Intervention on Variety of Transfer Behaviors Attempted (Personal Life)

| Source | <i>df</i> | <i>MS</i> | <i>F</i> |
|--------------------------|-----------|-----------|----------|
| Between persons | | | |
| Number of Negotiations | 1 | 447.78 | 76.38* |
| Motivation to Learn (M) | 1 | 2.50 | 0.43 |
| Self-Efficacy (SE) | 1 | 20.33 | 3.47 |
| Motivation Condition (C) | 2 | 11.06 | 1.89 |
| M x C | 2 | 3.87 | 0.66 |
| SE x C | 2 | 6.20 | 1.06 |
| Within persons | | | |
| Error | 179 | 5.86 | |

* $p < .05$.

Table N5

Analysis of Covariance: Effects of Transfer Motivation Intervention on Number of Negotiations Reported (Personal Life)

| Source | <i>df</i> | <i>MS</i> | <i>F</i> |
|--------------------------|-----------|-----------|----------|
| Between persons | | | |
| Motivation to Learn (M) | 1 | 14.05 | 9.89* |
| Self-Efficacy (SE) | 1 | 16.11 | 11.35* |
| Motivation Condition (C) | 2 | 3.88 | 2.74 |
| M x C | 2 | 0.66 | 0.46 |
| SE x C | 2 | 0.76 | 0.53 |
| Within persons | | | |
| Error | 180 | 1.42 | |

* $p < .05$.

Table N6

Regression Analysis: Effects of Perceived Personal Relevance on Frequency of Transfer Behavior Attempts (Simulation)

| Variable | <i>B</i> | <i>SE B</i> | ΔR^2 |
|---------------------|----------|-------------|--------------|
| Step 1 | | | .04 |
| Gender ^a | -1.00* | 0.52 | |
| Motivation to Learn | 0.22 | 0.37 | |
| Self-Efficacy | 0.51 | 0.41 | |
| Step 2 | | | .00 |
| Personal Relevance | -0.14 | 0.48 | |

Note. Regression weights given are incremental effects when all prior variables have been entered into the regression.

$N = 186$.

^a 0 = male, 1 = female.

* $p < .05$.

Table N7

Regression Analysis: Effects of Perceived Personal Relevance on Variety of Transfer Behaviors Attempted (Simulation)

| Variable | <i>B</i> | <i>SE B</i> | ΔR^2 |
|---------------------|----------|-------------|--------------|
| Step 1 | | | .03 |
| Motivation to Learn | 0.06 | 0.20 | |
| Self-Efficacy | 0.51* | 0.22 | |
| Step 2 | | | .00 |
| Personal Relevance | 0.08 | 0.26 | |

Note. Regression weights given are incremental effects when all prior variables have been entered into the regression.

N = 189.

* *p* < .05.

Table N8

Regression Analysis: Effects of Perceived Personal Relevance on Frequency of Transfer Behavior Attempts (Personal Life)

| Variable | <i>B</i> | <i>SE B</i> | ΔR^2 |
|------------------------|----------|-------------|--------------|
| Step 1 | | | .41 |
| Number of Negotiations | 0.36* | 0.03 | |
| Motivation to Learn | -0.09 | 0.07 | |
| Self-Efficacy | 0.13 | 0.07 | |
| Step 2 | | | .01 |
| Personal Relevance | 0.13 | 0.08 | |

Note. Regression weights given are incremental effects when all prior variables have been entered into the regression.

N = 189.

* *p* < .05.

Table N9

Regression Analysis: Effects of Perceived Personal Relevance on Variety of Transfer Behaviors Attempted (Personal Life)

| Variable | <i>B</i> | <i>SE B</i> | ΔR^2 |
|------------------------|----------|-------------|--------------|
| Step 1 | | | .30 |
| Number of Negotiations | 1.18* | 0.15 | |
| Motivation to Learn | -0.28 | 0.29 | |
| Self-Efficacy | 0.59 | 0.32 | |
| Step 2 | | | .00 |
| Personal Relevance | -0.25 | 0.36 | |

Note. Regression weights given are incremental effects when all prior variables have been entered into the regression.

N = 189.

* *p* < .05.

Table N10

Regression Analysis: Effects of Perceived Personal Relevance on Number of Negotiations Reported (Personal Life)

| Variable | <i>B</i> | <i>SE B</i> | ΔR^2 |
|---------------------|----------|-------------|--------------|
| Step 1 | | | .10 |
| Motivation to Learn | 0.32* | 0.14 | |
| Self-Efficacy | 0.51* | 0.15 | |
| Step 2 | | | .03 |
| Personal Relevance | 0.39* | 0.17 | |

Note. Regression weights given are incremental effects when all prior variables have been entered into the regression.

N = 189.

* *p* < .05.

Table N11

Regression Analysis: Effects of Self-Regulatory Focus on Frequency of Transfer Behavior Attempts (Simulation)

| Variable | <i>B</i> | <i>SE B</i> | ΔR^2 |
|----------------------|----------|-------------|--------------|
| Step 1 | | | .04 |
| Gender ^a | -1.00* | 0.52 | |
| Motivation to Learn | 0.22 | 0.37 | |
| Self-Efficacy | 0.51 | 0.41 | |
| Step 2 | | | .01 |
| Approach-Mastery | -0.22 | 0.50 | |
| Approach-Performance | -0.32 | 0.35 | |
| Avoid SR Focus | -0.07 | 0.38 | |

Note. Regression weights given are incremental effects when all prior variables have been entered into the regression.

N = 186.

^a 0 = male, 1 = female.

* *p* < .05.

Table N12

Regression Analysis: Effects of Self-Regulatory Focus on Variety of Transfer Behaviors Attempted (Simulation)

| Variable | <i>B</i> | <i>SE B</i> | ΔR^2 |
|----------------------|----------|-------------|--------------|
| Step 1 | | | .03 |
| Motivation to Learn | 0.06 | 0.20 | |
| Self-Efficacy | 0.51* | 0.22 | |
| Step 2 | | | .01 |
| Approach-Mastery | 0.18 | 0.28 | |
| Approach-Performance | -0.13 | 0.19 | |
| Avoid SR Focus | 0.02 | 0.21 | |

Note. Regression weights given are incremental effects when all prior variables have been entered into the regression.

N = 189.

* *p* < .05.

Table N13

Regression Analysis: Effects of Self-Regulatory Focus on Frequency of Transfer Behavior Attempts (Personal Life)

| Variable | <i>B</i> | <i>SE B</i> | ΔR^2 |
|------------------------|----------|-------------|--------------|
| Step 1 | | | .41 |
| Number of Negotiations | 0.36* | 0.03 | |
| Motivation to Learn | -0.09 | 0.07 | |
| Self-Efficacy | 0.13 | 0.07 | |
| Step 2 | | | .02 |
| Approach-Mastery | 0.11 | 0.09 | |
| Approach-Performance | 0.01 | 0.06 | |
| Avoid SR Focus | 0.11 | 0.07 | |

Note. Regression weights given are incremental effects when all prior variables have been entered into the regression.

N = 189.

* *p* < .05.

Table N14

Regression Analysis: Effects of Self-Regulatory Focus on Variety of Transfer Behaviors Attempted (Personal Life)

| Variable | <i>B</i> | <i>SE B</i> | ΔR^2 |
|------------------------|----------|-------------|--------------|
| Step 1 | | | .30 |
| Number of Negotiations | 1.18* | 0.15 | |
| Motivation to Learn | -0.28 | 0.29 | |
| Self-Efficacy | 0.59 | 0.32 | |
| Step 2 | | | .02 |
| Approach-Mastery | 0.14 | 0.39 | |
| Approach-Performance | 0.18 | 0.27 | |
| Avoid SR Focus | 0.54 | 0.29 | |

Note. Regression weights given are incremental effects when all prior variables have been entered into the regression.

N = 189.

* *p* < .05.

Table N15

Regression Analysis: Effects of Self-Regulatory Focus on Number of Negotiations Reported (Personal Life)

| Variable | <i>B</i> | <i>SE B</i> | ΔR^2 |
|----------------------|----------|-------------|--------------|
| Step 1 | | | .10 |
| Motivation to Learn | 0.32* | 0.14 | |
| Self-Efficacy | 0.51* | 0.15 | |
| Step 2 | | | .01 |
| Approach-Mastery | 0.22 | 0.19 | |
| Approach-Performance | 0.00 | 0.13 | |
| Avoid SR Focus | -0.13 | 0.14 | |

Note. Regression weights given are incremental effects when all prior variables have been entered into the regression.

N = 189.

* *p* < .05.

Table N16

Regression Analysis: Effects of Implementation Intentions on Frequency of Transfer Behavior Attempts (Simulation)

| Variable | <i>B</i> | <i>SE B</i> | ΔR^2 |
|---------------------------|----------|-------------|--------------|
| Step 1 | | | .04 |
| Gender ^a | -1.00* | 0.52 | |
| Motivation to Learn | 0.22 | 0.37 | |
| Self-Efficacy | 0.51 | 0.41 | |
| Step 2 | | | .01 |
| Implementation Intentions | -0.44 | 0.37 | |

Note. Regression weights given are incremental effects when all prior variables have been entered into the regression.

N = 186.

^a 0 = male, 1 = female.

* *p* < .05.

Table N17

Regression Analysis: Effects of Implementation Intentions on Variety of Transfer Behaviors Attempted (Simulation)

| Variable | <i>B</i> | <i>SE B</i> | ΔR^2 |
|---------------------------|----------|-------------|--------------|
| Step 1 | | | .03 |
| Motivation to Learn | 0.06 | 0.20 | |
| Self-Efficacy | 0.51* | 0.22 | |
| Step 2 | | | .00 |
| Implementation Intentions | -0.14 | 0.21 | |

Note. Regression weights given are incremental effects when all prior variables have been entered into the regression.

N = 189.

* *p* < .05.

Table N18

Regression Analysis: Effects of Implementation Intentions on Frequency of Transfer Behavior Attempts (Personal Life)

| Variable | <i>B</i> | <i>SE B</i> | ΔR^2 |
|---------------------------|----------|-------------|--------------|
| Step 1 | | | .41 |
| Number of Negotiations | 0.36* | 0.03 | |
| Motivation to Learn | -0.09 | 0.07 | |
| Self-Efficacy | 0.13 | 0.07 | |
| Step 2 | | | .02 |
| Implementation Intentions | 0.15* | 0.07 | |

Note. Regression weights given are incremental effects when all prior variables have been entered into the regression.

N = 189.

* *p* < .05.

Table N19

Regression Analysis: Effects of Implementation Intentions on Variety of Transfer Behaviors Attempted (Personal Life)

| Variable | <i>B</i> | <i>SE B</i> | ΔR^2 |
|---------------------------|----------|-------------|--------------|
| Step 1 | | | .30 |
| Number of Negotiations | 1.18* | 0.15 | |
| Motivation to Learn | -0.28 | 0.29 | |
| Self-Efficacy | 0.59 | 0.32 | |
| Step 2 | | | .03 |
| Implementation Intentions | 0.75* | 0.28 | |

Note. Regression weights given are incremental effects when all prior variables have been entered into the regression.

N = 189.

* *p* < .05.

Table N20

Regression Analysis: Effects of Implementation Intentions on Number of Negotiations Reported (Personal Life)

| Variable | <i>B</i> | <i>SE B</i> | ΔR^2 |
|---------------------------|----------|-------------|--------------|
| Step 1 | | | .10 |
| Motivation to Learn | 0.32* | 0.14 | |
| Self-Efficacy | 0.51* | 0.15 | |
| Step 2 | | | .00 |
| Implementation Intentions | 0.01 | 0.14 | |

Note. Regression weights given are incremental effects when all prior variables have been entered into the regression.

N = 189.

* *p* < .05.

TABLES

Table 5

Descriptive Statistics and Correlations with Demographic Features for Motivation and Outcome Variables

| Variable | Overall | | Within Condition | | | | | | Correlation | |
|-----------------------------------|---------|------|---------------------------|------|--------------------|------|------------------------|------|------------------|------|
| | Mean | SD | Training- Only Control | | Action Planning | | Motivation Planning | | Sex ^a | Age |
| Motivation to Learn | 3.80 | 0.64 | 3.82 | 0.75 | 3.80 | 0.63 | 3.78 | 0.56 | .08 | .07 |
| Self-Efficacy | 3.46 | 0.59 | 3.60 | 0.67 | 3.35 | 0.61 | 3.44 | 0.47 | -.20* | -.01 |
| Learning | 11.45 | 3.48 | 11.85 | 3.00 | 11.40 | 3.81 | 11.14 | 3.60 | .14 | -.02 |
| Personal Relevance | 4.29 | 0.55 | 4.39 | 0.46 | 4.26 | 0.62 | 4.25 | 0.55 | .17* | -.02 |
| Competence Valuation | 4.12 | 0.67 | 4.25 | 0.61 | 4.06 | 0.71 | 4.06 | 0.69 | .02 | .05 |
| Self-Regulatory Focus | | | | | | | | | | |
| Approach-Mastery | 3.72 | 0.57 | 3.81 | 0.58 | 3.75 | 0.62 | 3.61 | 0.51 | -.03 | -.01 |
| Approach-Performance | 3.28 | 0.71 | 3.23 | 0.77 | 3.28 | 0.70 | 3.31 | 0.68 | -.09 | -.06 |
| Avoid | 2.70 | 0.73 | 2.70 | 0.73 | 2.82 | 0.84 | 2.60 | 0.60 | .15* | -.01 |
| Goal Variety | | | | | | | | | | |
| Simulation | 7.59 | 1.16 | 7.77 | 0.74 | 7.34 | 1.56 | 7.64 | 1.04 | .05 | -.01 |
| Week | 7.47 | 1.08 | 7.59 | 0.92 | 7.41 | 1.30 | 7.41 | 1.03 | .01 | .02 |
| Assertive Strategies | 4.78 | 1.69 | 5.07 | 1.36 | 4.36 | 2.03 | 4.89 | 1.57 | .04 | .06 |
| Implementation Intentions | 3.21 | 0.67 | 3.09 | 0.67 | 3.21 | 0.75 | 3.32 | 0.60 | .07 | .08 |
| Situational Cueing | 2.83 | 0.80 | 2.89 | 0.87 | 2.76 | 0.83 | 2.84 | 0.72 | -.16* | .03 |
| Transfer Behavior | | | | | | | | | | |
| Number of Attempts (Simulation) | 7.16 | 3.13 | 7.79 | 3.77 | 6.91 | 2.70 | 6.83 | 2.79 | -.16* | .07 |
| Variety of Attempts (Simulation) | 5.61 | 2.09 | 5.46 | 1.88 | 5.22 | 1.85 | 4.74 | 1.46 | -.06 | .01 |
| Number of Negotiations (Personal) | 2.94 | 1.26 | 3.26 | 1.38 | 2.91 | 1.19 | 2.69 | 1.15 | -.05 | .00 |
| Number of Attempts (Personal) | 2.06 | 0.72 | 2.14 | 0.78 | 2.10 | 0.67 | 1.95 | 0.70 | -.03 | -.10 |
| Variety of Attempts (Personal) | 6.57 | 2.88 | 6.70 | 3.02 | 6.97 | 2.64 | 6.13 | 2.93 | -.05 | -.06 |
| Transfer Performance | | | | | | | | | | |
| Salary (Simulation) | 47370 | 2741 | 47672 | 2993 | 47207 | 2706 | 47243 | 2551 | -.09 | .12 |
| Self-Ratings (Personal) | 3.09 | 0.72 | 3.14 | 0.65 | 3.02 | 0.86 | 3.09 | 0.67 | -.02 | .00 |

Note. N = 189. For most variables, the possible response scale ranged from 1 to 5. Exceptions were: Learning 0-20 points, Goal Variety for the Simulation or Week 0-8 strategies, Goal Variety for the Assertive Strategies 0-6 strategies, Number of Attempts (Simulation) 0-∞ attempts, Variety of Attempts (Simulation) 0-11 strategies, Number of Negotiations in Personal Life 0-4 points, Number of Attempts (Personal Life) average response on a 0-4 scale across the 11 strategies, Variety of Attempts (Personal Life) 0-11 strategies, Salary \$42,000-\$60,000, Self-Ratings 1-4 points.

* Correlations > .143 or < -.143 are significant at alpha = .05.

^a For sex, 1=Male, 2=Female.

Table 6

Correlations among Motivation and Outcome Variables

| Variable | 1 | 2 | 3 | 4 | 5 | 6a | 6b | 6c | 7a | 7b | 7c | 8 | 9 | 10a | 10b | 11a | 11b | 11c | 12 | 13 |
|---------------------------------------|------|------------|------------|------------|------------|------|------|------------|------------|------|-------|------|-------|------|------------|-------------|------|------|-------------|-------|
| 1 Motivation to Learn | .92* | .22* | .15* | .36* | .41* | .48* | .03 | .06 | .17* | .23* | .09 | .32* | .05 | .05 | .06 | .22* | .08 | .08 | .21* | .22* |
| 2 Self-Efficacy | .22* | <i>.91</i> | .03 | .32* | .39* | .40* | .29* | -.42* | .21* | .30* | .27* | .32* | .27* | .13 | .18* | .28* | .26* | .25* | .09 | .47* |
| 3 Learning | .15* | .03 | <i>.55</i> | .16* | .19* | .22* | -.03 | .02 | .03 | .07 | .02 | .08 | .03 | .03 | .09 | .00 | -.01 | -.10 | .13 | .00 |
| 4 Personal Relevance | .36* | .32* | .16* | <i>.84</i> | .64* | .54* | .16* | .00 | .32* | .27* | .14 | .28* | -.01 | .01 | .08 | .27* | .26* | .12 | .12 | .26* |
| 5 Competence Valuation | .41* | .39* | .18* | .64* | <i>.94</i> | .67* | .27* | .08 | .29* | .39* | .10 | .37* | .02 | .09 | .14 | .25* | .30* | .23* | .12 | .26* |
| Self-Regulatory Focus | | | | | | | | | | | | | | | | | | | | |
| 6a Approach-Mastery | .48* | .40* | .22* | .54* | .67* | .83 | .21* | .09 | .17* | .27* | .16* | .42* | .06 | .02 | .11 | .23* | .23* | .19* | .11 | .35* |
| 6b Approach-Performance | .03 | .29* | -.03 | .16* | .27* | .21* | .78 | .10 | .13 | .29* | .01 | .19* | -.06 | -.03 | .01 | .07 | .12 | .14* | -.10 | .12 |
| 6c Avoid | .06 | -.42* | .02 | .00 | .08 | .09 | .10 | <i>.86</i> | .03 | -.10 | -.16* | .07 | -.25* | -.10 | -.06 | -.13 | -.02 | .01 | -.09 | -.27* |
| Goal Variety | | | | | | | | | | | | | | | | | | | | |
| 7a Simulation | .17* | .21* | .03 | .32* | .29* | .17* | .13 | .03 | <i>.81</i> | .50* | .31* | .23* | -.05 | .02 | -.01 | -.03 | .05 | .04 | .05 | .17* |
| 7b Personal Life | .23* | .30* | .07 | .27* | .39* | .27* | .29* | -.10 | .50* | .67 | .36* | .40* | .01 | .02 | .01 | .17* | .24* | .31* | .06 | .28* |
| 7c Assertive Strategies | .09 | .27* | .02 | .14 | .10 | .16* | .01 | -.16* | .31* | .36* | .79 | .22* | -.05 | .01 | -.02 | .07 | .09 | .14 | .02 | .14 |
| 8 Implementation Intentions | .32* | .32* | .08 | .28* | .37* | .42* | .19* | .07 | .23* | .40* | .22* | .77 | .00 | -.04 | .02 | .14 | .21* | .23* | .07 | .32* |
| 9 Situational Cueing | .05 | .27* | .03 | -.01 | .02 | .06 | -.06 | -.25* | -.05 | .01 | -.05 | .00 | .68 | .33* | .25* | .13 | .15* | .08 | .33* | .19* |
| Transfer Behavior | | | | | | | | | | | | | | | | | | | | |
| 10a Number of Attempts (Simulation) | .05 | .13 | .03 | .01 | .09 | .02 | -.03 | -.10 | .02 | .02 | .01 | -.04 | .33* | .40 | .86* | .07 | .04 | .01 | .76* | .04 |
| 10b Variety of Attempts (Simulation) | .06 | .18* | .09 | .08 | .14 | .11 | .01 | -.06 | -.01 | .01 | -.02 | .02 | .25* | .86* | <i>.41</i> | .13 | .12 | .11 | .72* | .09 |
| 11a Number of Negotiations (Personal) | .22* | .28* | .00 | .27* | .25* | .23* | .07 | -.13 | -.03 | .17* | .07 | .14 | .13 | .07 | .13 | <i>n.a.</i> | .63* | .54* | .10 | .33* |
| 11b Number of Attempts (Personal) | .08 | .26* | -.01 | .26* | .30* | .23* | .12 | -.02 | .05 | .24* | .09 | .21* | .15* | .04 | .12 | .63* | .87 | .85* | .05 | .31* |
| 11c Variety of Attempts (Personal) | .08 | .25* | -.10 | .12 | .23* | .19* | .14* | .01 | .04 | .31* | .14 | .23* | .08 | .01 | .11 | .54* | .85* | .77 | -.02 | .25* |
| Transfer Performance | | | | | | | | | | | | | | | | | | | | |
| 12 Salary (Simulation) | .21* | .09 | .13 | .12 | .12 | .11 | -.10 | -.09 | .05 | .06 | .02 | .07 | .33* | .76* | .72* | .10 | .05 | -.02 | <i>n.a.</i> | .05 |
| 13 Self-Ratings (Personal) | .22* | .47* | .00 | .26* | .26* | .35* | .12 | -.27* | .17* | .28* | .14 | .32* | .19* | .04 | .09 | .33* | .31* | .25* | .05 | .79 |

N = 189

* Alpha reliabilities for the scales are in italics on the diagonal.

* Correlations > .143 or < -.143 are significant at alpha = .05

Table 7

Regression Analysis: Effects of Transfer Attempts on Simulation Performance

| Variable | <i>B</i> | <i>SE B</i> | ΔR^2 |
|-----------------------|----------|-------------|--------------|
| Step 1 | | | .06 |
| Motivation to Learn | 850.38* | 307.04 | |
| Learning (L) | 76.36 | 56.72 | |
| Step 2 | | | .56 |
| Strategy Attempts (A) | 656.73* | 39.97 | |
| Step 3 | | | .00 |
| L x A | -8.68 | 11.43 | |

Note. Regression weights given are incremental effects when all prior variables have been entered into the regression.

N = 189.

* *p* < .05.

Table 8

Regression Analysis: Effects of Transfer Attempt Variety on Simulation Performance

| Variable | <i>B</i> | <i>SE B</i> | ΔR^2 |
|-------------------------|----------|-------------|--------------|
| Step 1 | | | .06 |
| Motivation to Learn | 850.38* | 307.04 | |
| Learning (L) | 76.36 | 56.72 | |
| Step 2 | | | .49 |
| Variety of Attempts (V) | 1107.41* | 78.19 | |
| Step 3 | | | .00 |
| L x V | -7.47 | 20.64 | |

Note. Regression weights given are incremental effects when all prior variables have been entered into the regression.

N = 189.

* *p* < .05.

Table 9

Regression Analysis: Effects of Transfer Attempts on Transfer Performance in Personal Life

| Variable | <i>B</i> | <i>SE B</i> | ΔR^2 |
|---------------------|----------|-------------|--------------|
| Step 1 | | | .24 |
| Motivation to Learn | 0.15* | 0.08 | |
| Self-Efficacy | 0.55* | 0.08 | |
| Learning (L) | -0.01 | 0.01 | |
| Step 2 | | | .04 |
| Attempts (A) | 0.22* | 0.07 | |
| Step 3 | | | .00 |
| L x A | -0.01 | 0.02 | |

Note. Regression weights given are incremental effects when all prior variables have been entered into the regression.

N = 184.

* *p* < .05.

Table 10

Regression Analysis: Effects of Transfer Attempt Variety on Transfer Performance in Personal Life

| Variable | <i>B</i> | <i>SE B</i> | ΔR^2 |
|-------------------------|----------|-------------|--------------|
| Step 1 | | | .24 |
| Motivation to Learn | 0.15* | 0.08 | |
| Self-Efficacy | 0.55* | 0.08 | |
| Learning (L) | -0.01 | 0.01 | |
| Step 2 | | | .02 |
| Variety of Attempts (V) | 0.04* | 0.02 | |
| Step 3 | | | .00 |
| L x V | 0.00 | 0.01 | |

Note. Regression weights given are incremental effects when all prior variables have been entered into the regression.

N = 184.

* *p* < .05.

Table 11

Regression Analysis: Effects of Self-Efficacy on Frequency of Transfer Behavior Attempts (Simulation)

| Variable | <i>B</i> | <i>SE B</i> | ΔR^2 |
|---------------------|----------|-------------|--------------|
| Step 1 | | | .03 |
| Gender ^a | -1.15* | 0.51 | |
| Motivation to Learn | 0.33 | 0.36 | |
| Step 2 | | | .01 |
| Self-Efficacy | 0.51 | 0.41 | |

Note. Regression weights given are incremental effects when all prior variables have been entered into the regression.

N = 186.

^a 0 = male, 1 = female.

* *p* < .05.

Table 12

Regression Analysis: Effects of Self-Efficacy on Variety of Transfer Behaviors Attempted (Simulation)

| Variable | <i>B</i> | <i>SE B</i> | ΔR^2 |
|---------------------|----------|-------------|--------------|
| Step 1 | | | .00 |
| Motivation to Learn | 0.16 | 0.20 | |
| Step 2 | | | .03 |
| Self-Efficacy | 0.51* | 0.22 | |

Note. Regression weights given are incremental effects when all prior variables have been entered into the regression.

N = 189.

* *p* < .05.

Table 13

Regression Analysis: Effects of Self-Efficacy on Frequency of Transfer Behavior Attempts (Personal Life)

| Variable | <i>B</i> | <i>SE B</i> | ΔR^2 |
|------------------------|----------|-------------|--------------|
| Step 1 | | | .40 |
| Number of Negotiations | 0.37* | 0.03 | |
| Motivation to Learn | -0.07 | 0.06 | |
| Step 2 | | | .01 |
| Self-Efficacy | 0.13 | 0.07 | |

Note. Regression weights given are incremental effects when all prior variables have been entered into the regression.

N = 189.

**p* < .05.

Table 14

Regression Analysis: Effects of Self-Efficacy on Variety of Transfer Behaviors Attempted (Personal Life)

| Variable | <i>B</i> | <i>SE B</i> | ΔR^2 |
|------------------------|----------|-------------|--------------|
| Step 1 | | | .29 |
| Number of Negotiations | 1.25* | 0.15 | |
| Motivation to Learn | -0.18 | 0.28 | |
| Step 2 | | | .01 |
| Self-Efficacy | 0.59 | 0.32 | |

Note. Regression weights given are incremental effects when all prior variables have been entered into the regression.

N = 189.

**p* < .05.

Table 15

Regression Analysis: Effects of Self-Efficacy on Number of Negotiations Reported (Personal Life)

| Variable | <i>B</i> | <i>SE B</i> | ΔR^2 |
|---------------------|----------|-------------|--------------|
| Step 1 | | | .05 |
| Motivation to Learn | 0.42* | 0.14 | |
| Step 2 | | | .05 |
| Self-Efficacy | 0.51* | 0.15 | |

Note. Regression weights given are incremental effects when all prior variables have been entered into the regression.

N = 189.

* *p* < .05.

Table 16

Regression Analysis: Effects of Competence Valuation on Frequency of Transfer Behavior Attempts (Simulation)

| Variable | <i>B</i> | <i>SE B</i> | ΔR^2 |
|----------------------|----------|-------------|--------------|
| Step 1 | | | .04 |
| Gender ^a | -1.00* | 0.52 | |
| Motivation to Learn | 0.22 | 0.37 | |
| Self-Efficacy | 0.51 | 0.41 | |
| Step 2 | | | .00 |
| Competence Valuation | 0.24 | 0.40 | |

Note. Regression weights given are incremental effects when all prior variables have been entered into the regression.

N = 186.

^a 0 = male, 1 = female.

* *p* < .05.

Table 17

Regression Analysis: Effects of Competence Valuation on Variety of Transfer Behaviors Attempted (Simulation)

| Variable | <i>B</i> | <i>SE B</i> | ΔR^2 |
|----------------------|----------|-------------|--------------|
| Step 1 | | | .03 |
| Motivation to Learn | 0.06 | 0.20 | |
| Self-Efficacy | 0.51* | 0.22 | |
| Step 2 | | | .01 |
| Competence Valuation | 0.21 | 0.22 | |

Note. Regression weights given are incremental effects when all prior variables have been entered into the regression.

N = 189.

* *p* < .05.

Table 18

Regression Analysis: Effects of Competence Valuation on Frequency of Transfer Behavior Attempts (Personal Life)

| Variable | <i>B</i> | <i>SE B</i> | ΔR^2 |
|------------------------|----------|-------------|--------------|
| Step 1 | | | .41 |
| Number of Negotiations | 0.36* | 0.03 | |
| Motivation to Learn | -0.09 | 0.07 | |
| Self-Efficacy | 0.13 | 0.07 | |
| Step 2 | | | .03 |
| Competence Valuation | 0.20* | 0.07 | |

Note. Regression weights given are incremental effects when all prior variables have been entered into the regression.

N = 189.

* *p* < .05.

Table 19

Regression Analysis: Effects of Competence Valuation on Variety of Transfer Behaviors Attempted (Personal Life)

| Variable | <i>B</i> | <i>SE B</i> | ΔR^2 |
|------------------------|----------|-------------|--------------|
| Step 1 | | | .30 |
| Number of Negotiations | 1.18* | 0.15 | |
| Motivation to Learn | -0.28 | 0.29 | |
| Self-Efficacy | 0.59 | 0.32 | |
| Step 2 | | | .01 |
| Competence Valuation | 0.48 | 0.31 | |

Note. Regression weights given are incremental effects when all prior variables have been entered into the regression.

N = 189.

* *p* < .05.

Table 20

Regression Analysis: Effects of Competence Valuation on Number of Negotiations Reported (Personal Life)

| Variable | <i>B</i> | <i>SE B</i> | ΔR^2 |
|----------------------|----------|-------------|--------------|
| Step 1 | | | .10 |
| Motivation to Learn | 0.32* | 0.14 | |
| Self-Efficacy | 0.51* | 0.15 | |
| Step 2 | | | .01 |
| Competence Valuation | 0.22 | 0.15 | |

Note. Regression weights given are incremental effects when all prior variables have been entered into the regression.

N = 189.

* *p* < .05.

Table 21

Regression Analysis: Effects of Goal Variety on Frequency of Transfer Behavior Attempts (Simulation)

| Variable | <i>B</i> | <i>SE B</i> | ΔR^2 |
|---|----------|-------------|--------------|
| Step 1 | | | .04 |
| Gender ^a | -1.00* | 0.52 | |
| Motivation to Learn | 0.22 | 0.37 | |
| Self-Efficacy | 0.51 | 0.41 | |
| Step 2 | | | .00 |
| Goal Variety (nonassertive strategies) | 0.01 | 0.21 | |
| Goal Variety (assertive strategies) | -0.02 | 0.15 | |

Note. Regression weights given are incremental effects when all prior variables have been entered into the regression.

N = 186.

^a 0 = male, 1 = female.

* *p* < .05.

Table 22

Regression Analysis: Effects of Goal Variety on Variety of Transfer Behaviors Attempted (Simulation)

| Variable | <i>B</i> | <i>SE B</i> | ΔR^2 |
|---|----------|-------------|--------------|
| Step 1 | | | .03 |
| Motivation to Learn | 0.06 | 0.20 | |
| Self-Efficacy | 0.51* | 0.22 | |
| Step 2 | | | .01 |
| Goal Variety (nonassertive strategies) | -0.05 | 0.12 | |
| Goal Variety (assertive strategies) | -0.07 | 0.08 | |

Note. Regression weights given are incremental effects when all prior variables have been entered into the regression.

N = 189.

* *p* < .05.

Table 23

Regression Analysis: Effects of Goal Variety on Frequency of Transfer Behavior Attempts (Personal Life)

| Variable | <i>B</i> | <i>SE B</i> | ΔR^2 |
|---|----------|-------------|--------------|
| Step 1 | | | .41 |
| Number of Negotiations | 0.36* | 0.03 | |
| Motivation to Learn | -0.09 | 0.07 | |
| Self-Efficacy | 0.13 | 0.07 | |
| Step 2 | | | .02 |
| Goal Variety (nonassertive strategies) | 0.09* | 0.04 | |
| Goal Variety (assertive strategies) | -0.00 | 0.03 | |

Note. Regression weights given are incremental effects when all prior variables have been entered into the regression.

N = 189.

* *p* < .05.

Table 24

Regression Analysis: Effects of Goal Variety on Variety of Transfer Behaviors Attempted (Personal Life)

| Variable | <i>B</i> | <i>SE B</i> | ΔR^2 |
|---|----------|-------------|--------------|
| Step 1 | | | .30 |
| Number of Negotiations | 1.18* | 0.15 | |
| Motivation to Learn | -0.28 | 0.29 | |
| Self-Efficacy | 0.59 | 0.32 | |
| Step 2 | | | .05 |
| Goal Variety (nonassertive strategies) | 0.58* | 0.18 | |
| Goal Variety (assertive strategies) | 0.03 | 0.11 | |

Note. Regression weights given are incremental effects when all prior variables have been entered into the regression.

N = 189.

* *p* < .05.

Table 25

Regression Analysis: Effects of Goal Variety on Number of Negotiations Reported (Personal Life)

| Variable | <i>B</i> | <i>SE B</i> | ΔR^2 |
|---|----------|-------------|--------------|
| Step 1 | | | .10 |
| Motivation to Learn | 0.32* | 0.14 | |
| Self-Efficacy | 0.51* | 0.15 | |
| Step 2 | | | .01 |
| Goal Variety (nonassertive strategies) | 0.09 | 0.09 | |
| Goal Variety (assertive strategies) | -0.02 | 0.06 | |

Note. Regression weights given are incremental effects when all prior variables have been entered into the regression.

N = 189.

* *p* < .05.

Table 26

Regression Analysis: Effects of Situational Cueing on Frequency of Transfer Behavior Attempts (Simulation)

| Variable | <i>B</i> | <i>SE B</i> | ΔR^2 |
|---------------------|----------|-------------|--------------|
| Step 1 | | | .04 |
| Gender ^a | -1.00* | 0.52 | |
| Motivation to Learn | 0.22 | 0.37 | |
| Self-Efficacy | 0.51 | 0.41 | |
| Step 2 | | | .09 |
| Situational Cueing | 1.22* | 0.29 | |

Note. Regression weights given are incremental effects when all prior variables have been entered into the regression.

N = 186.

^a 0 = male, 1 = female.

* *p* < .05.

Table 27

Regression Analysis: Effects of Situational Cueing on Variety of Transfer Behaviors Attempted (Simulation)

| Variable | <i>B</i> | <i>SE B</i> | ΔR^2 |
|---------------------|----------|-------------|--------------|
| Step 1 | | | .03 |
| Motivation to Learn | 0.06 | 0.20 | |
| Self-Efficacy | 0.51* | 0.22 | |
| Step 2 | | | .05 |
| Situational Cueing | 0.49* | 0.16 | |

Note. Regression weights given are incremental effects when all prior variables have been entered into the regression.

N = 188.

* *p* < .05.

Table 28

Regression Analysis: Effects of Situational Cueing on Frequency of Transfer Behavior Attempts (Personal Life)

| Variable | <i>B</i> | <i>SE B</i> | ΔR^2 |
|------------------------|----------|-------------|--------------|
| Step 1 | | | .41 |
| Number of Negotiations | 0.36* | 0.03 | |
| Motivation to Learn | -0.09 | 0.07 | |
| Self-Efficacy | 0.13 | 0.07 | |
| Step 2 | | | .00 |
| Situational Cueing | 0.04 | 0.05 | |

Note. Regression weights given are incremental effects when all prior variables have been entered into the regression.

N = 188.

* *p* < .05.

Table 29

Regression Analysis: Effects of Situational Cueing on Variety of Transfer Behaviors Attempted (Personal Life)

| Variable | <i>B</i> | <i>SE B</i> | ΔR^2 |
|------------------------|----------|-------------|--------------|
| Step 1 | | | .30 |
| Number of Negotiations | 1.18* | 0.15 | |
| Motivation to Learn | -0.28 | 0.29 | |
| Self-Efficacy | 0.59 | 0.32 | |
| Step 2 | | | .00 |
| Situational Cueing | -0.05 | 0.23 | |

Note. Regression weights given are incremental effects when all prior variables have been entered into the regression.

N = 188.

**p* < .05.

Table 30

Regression Analysis: Effects of Situational Cueing on Number of Negotiations Reported (Personal Life)

| Variable | <i>B</i> | <i>SE B</i> | ΔR^2 |
|---------------------|----------|-------------|--------------|
| Step 1 | | | .10 |
| Motivation to Learn | 0.32* | 0.14 | |
| Self-Efficacy | 0.51* | 0.15 | |
| Step 2 | | | .01 |
| Situational Cueing | 0.10 | 0.11 | |

Note. Regression weights given are incremental effects when all prior variables have been entered into the regression.

N = 188.

**p* < .05.

Table 31

Regression Analysis: Effects of Perceived Personal Relevance on Competence Valuation

| Variable | <i>B</i> | <i>SE B</i> | ΔR^2 |
|---------------------|----------|-------------|--------------|
| Step 1 | | | .17 |
| Motivation to Learn | 0.43* | 0.27 | |
| Step 2 | | | .27 |
| Personal Relevance | 0.69* | 0.07 | |

Note. Regression weights given are incremental effects when all prior variables have been entered into the regression.

N = 189.

**p* < .05.

Table 32

Regression Analysis: Effects of Self-Regulatory Focus on Goal Variety (Simulation)

| Variable | <i>B</i> | <i>SE B</i> | ΔR^2 |
|----------------------|----------|-------------|--------------|
| Step 1 | | | .03 |
| Motivation to Learn | 0.31* | 0.13 | |
| Step 2 | | | .02 |
| Approach-Mastery | 0.18 | 0.17 | |
| Approach-Performance | 0.18 | 0.12 | |
| Avoid | 0.00 | 0.12 | |

Note. Regression weights given are incremental effects when all prior variables have been entered into the regression.

N = 189.

**p* < .05.

Table 33

Regression Analysis: Effects of Self-Regulatory Focus on Goal Variety (Personal Life)

| Variable | <i>B</i> | <i>SE B</i> | ΔR^2 |
|----------------------|----------|-------------|--------------|
| Step 1 | | | .05 |
| Motivation to Learn | 0.39* | 0.12 | |
| Step 2 | | | .12 |
| Approach-Mastery | 0.29* | 0.15 | |
| Approach-Performance | 0.41* | 0.11 | |
| Avoid | -0.23* | 0.10 | |

Note. Regression weights given are incremental effects when all prior variables have been entered into the regression.

N = 189.

* *p* < .05.

Table 34

Regression Analysis: Effects of Self-Regulatory Focus on Goal Variety (Assertive Strategies)

| Variable | <i>B</i> | <i>SE B</i> | ΔR^2 |
|----------------------|----------|-------------|--------------|
| Step 1 | | | .01 |
| Motivation to Learn | 0.24 | 0.19 | |
| Step 2 | | | .04 |
| Approach-Mastery | 0.48 | 0.25 | |
| Approach-Performance | -0.03 | 0.18 | |
| Avoid | -0.40* | 0.17 | |

Note. Regression weights given are incremental effects when all prior variables have been entered into the regression.

N = 189.

* *p* < .05.

Table 35

Regression Analysis: Effects of Implementation Intentions on Situational Cueing

| Variable | <i>B</i> | <i>SE B</i> | ΔR^2 |
|---------------------------|----------|-------------|--------------|
| Step 1 | | | .03 |
| Gender ^a | -0.30* | 0.13 | |
| Motivation to Learn | 0.09 | 0.09 | |
| Step 2 | | | .00 |
| Implementation Intentions | 0.00 | 0.09 | |

Note. Regression weights given are incremental effects when all prior variables have been entered into the regression.

N = 188.

^a 0 = male, 1 = female.

* *p* < .05.

Table 36

Analysis of Covariance: Effects of Transfer Motivation Intervention on Perceived Personal Relevance

| Source | <i>df</i> | <i>MS</i> | <i>F</i> |
|--------------------------|-----------|-----------|----------|
| Between persons | | | |
| Gender ^a | 1 | 1.65 | 6.40* |
| Motivation to Learn (M) | 1 | 6.62 | 25.70* |
| Motivation Condition (C) | 2 | 0.33 | 1.29 |
| M x C | 2 | 0.45 | 1.73 |
| Within persons | | | |
| Error | 179 | 0.26 | |

^a Female participants expressed stronger perceived personal relevance of the negotiation training than did male participants.

* *p* < .05.

Table 37

Analysis of Covariance: Effects of Transfer Motivation Intervention on Self-Regulatory Focus (Approach-Mastery)

| Source | <i>df</i> | <i>MS</i> | <i>F</i> |
|--------------------------|-----------|-----------|----------|
| Between persons | | | |
| Motivation to Learn (M) | 1 | 13.94 | 59.39* |
| Motivation Condition (C) | 2 | 0.62 | 2.63 |
| M x C | 2 | 1.67 | 7.11* |
| Within persons | | | |
| Error | 183 | 0.23 | |

* $p < .05$.

Table 38

Analysis of Covariance: Effects of Transfer Motivation Intervention on Self-Regulatory Focus (Approach-Performance)

| Source | <i>df</i> | <i>MS</i> | <i>F</i> |
|--------------------------|-----------|-----------|----------|
| Between persons | | | |
| Motivation to Learn (M) | 1 | 0.08 | 0.15 |
| Motivation Condition (C) | 2 | 0.12 | 0.25 |
| M x C | 2 | 0.81 | 1.60 |
| Within persons | | | |
| Error | 183 | 0.51 | |

* $p < .05$.

Table 39

Analysis of Covariance: Effects of Transfer Motivation Intervention on Self-Regulatory Focus (Avoid)

| Source | <i>df</i> | <i>MS</i> | <i>F</i> |
|--------------------------|-----------|-----------|----------|
| Between persons | | | |
| Gender ^a | 1 | 2.25 | 4.50* |
| Motivation to Learn (M) | 1 | 0.05 | 0.10 |
| Motivation Condition (C) | 2 | 0.67 | 1.34 |
| M x C | 2 | 1.47 | 2.95 |
| Within persons | | | |
| Error | 179 | 0.50 | |

^a 0 = male, 1 = female.

* $p < .05$.

Table 40

Analysis of Covariance: Effects of Transfer Motivation Intervention on Implementation Intentions

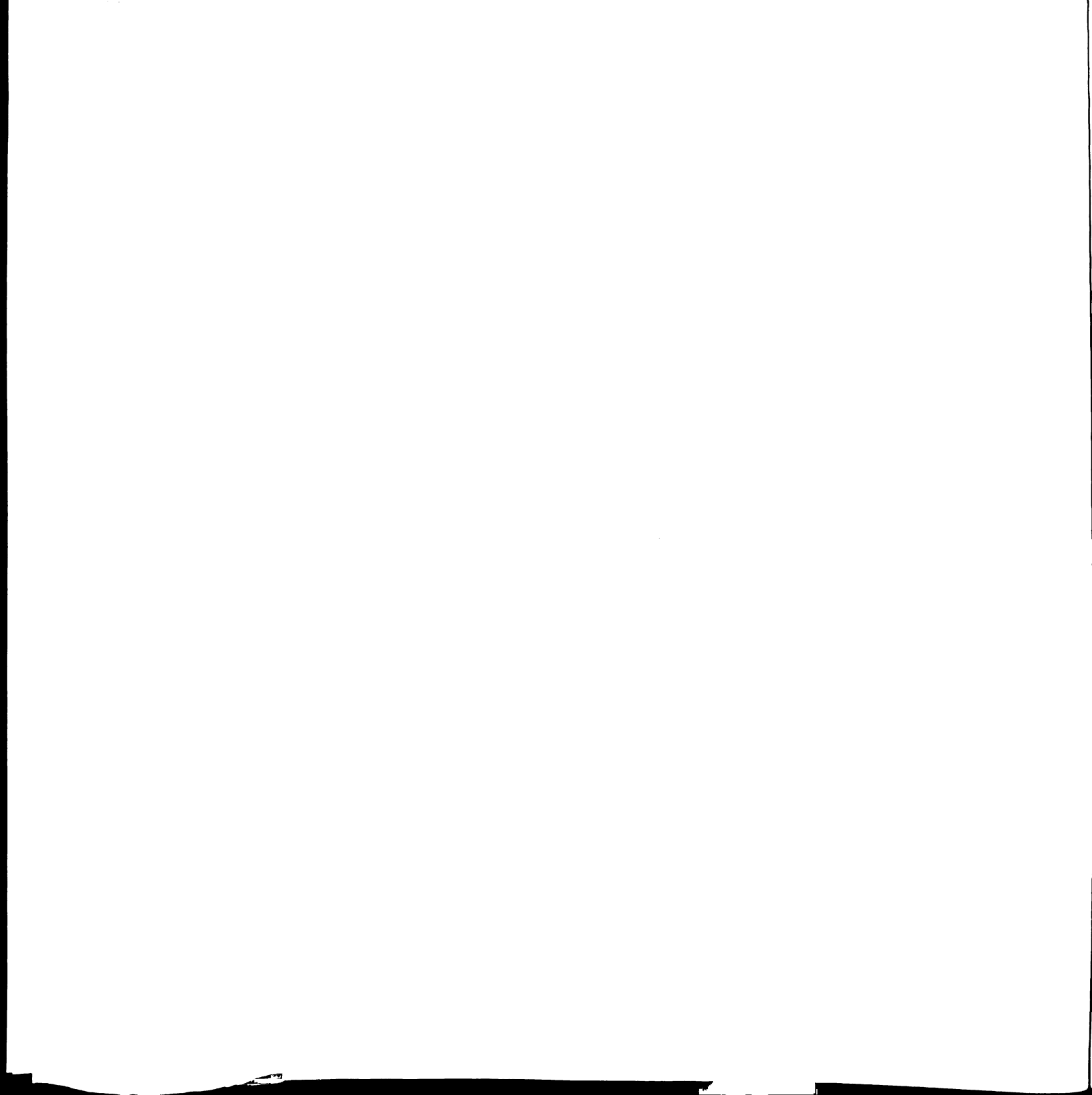
| Source | <i>df</i> | <i>MS</i> | <i>F</i> |
|--------------------------|-----------|-----------|----------|
| Between persons | | | |
| Motivation to Learn (M) | 1 | 8.65 | 21.62* |
| Motivation Condition (C) | 2 | 0.96 | 2.39 |
| M x C | 2 | 0.74 | 1.84 |
| Within persons | | | |
| Error | 183 | 0.40 | |

* $p < .05$.

Table 41

Summary of Significant Predictors for Transfer Behavior Variables

| Transfer Behavior Variable | Significant Predictors |
|---------------------------------|---|
| <u>Personal Life</u> | |
| Number of Negotiations | Motivation to Learn Self-Efficacy Personal Relevance |
| Number of Strategies Attempted | Competence Valuation Goal Variety (nonassertive strategies) Implementation Intentions |
| Variety of Strategies Attempted | Goal Variety (nonassertive strategies) Implementation Intentions |
| <u>Negotiation Simulation</u> | |
| Number of Strategies Attempted | Gender Situational Cueing |
| Variety of Strategies Attempted | Self-Efficacy Situational Cueing |



FIGURES

Figure 1. Conceptual model of the impact of the experimental transfer motivation intervention on transfer motivation, transfer behavior, and transfer performance.

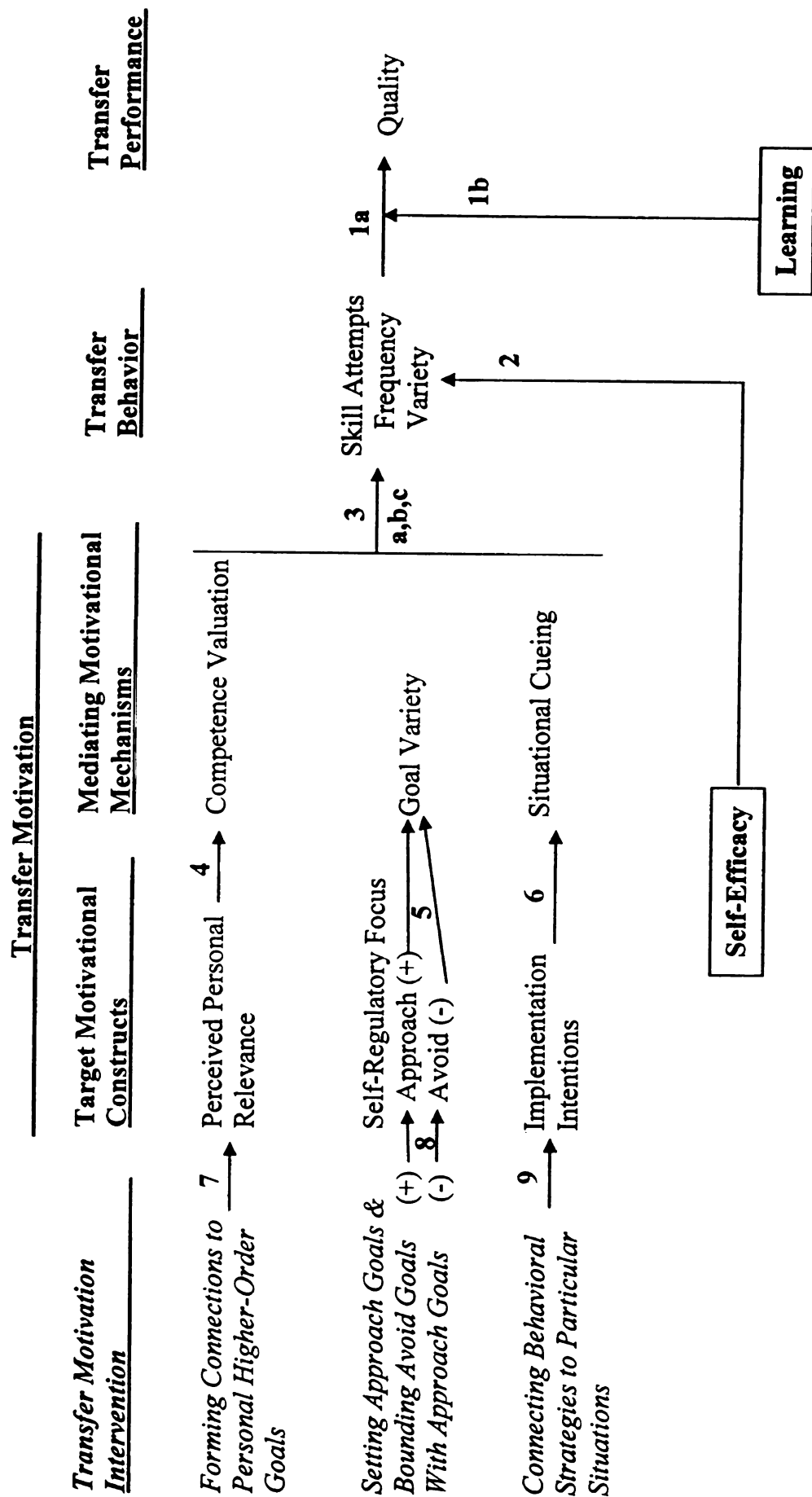


Figure 4. Effects of Motivation to Learn on Approach-Mastery Self-Regulatory Focus, by Condition

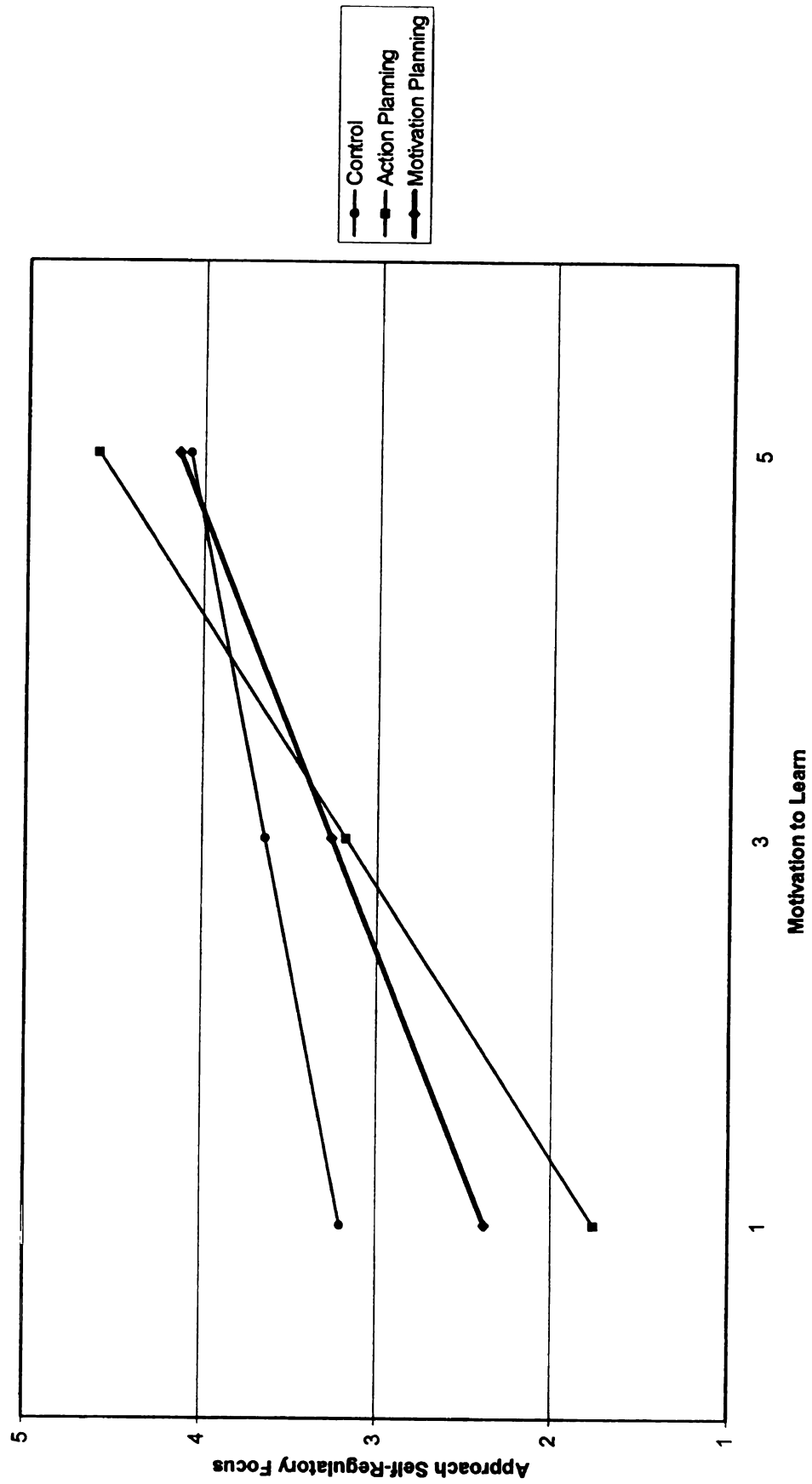


Figure 5. Effects of Motivation to Learn on Competence Valuation, by Condition

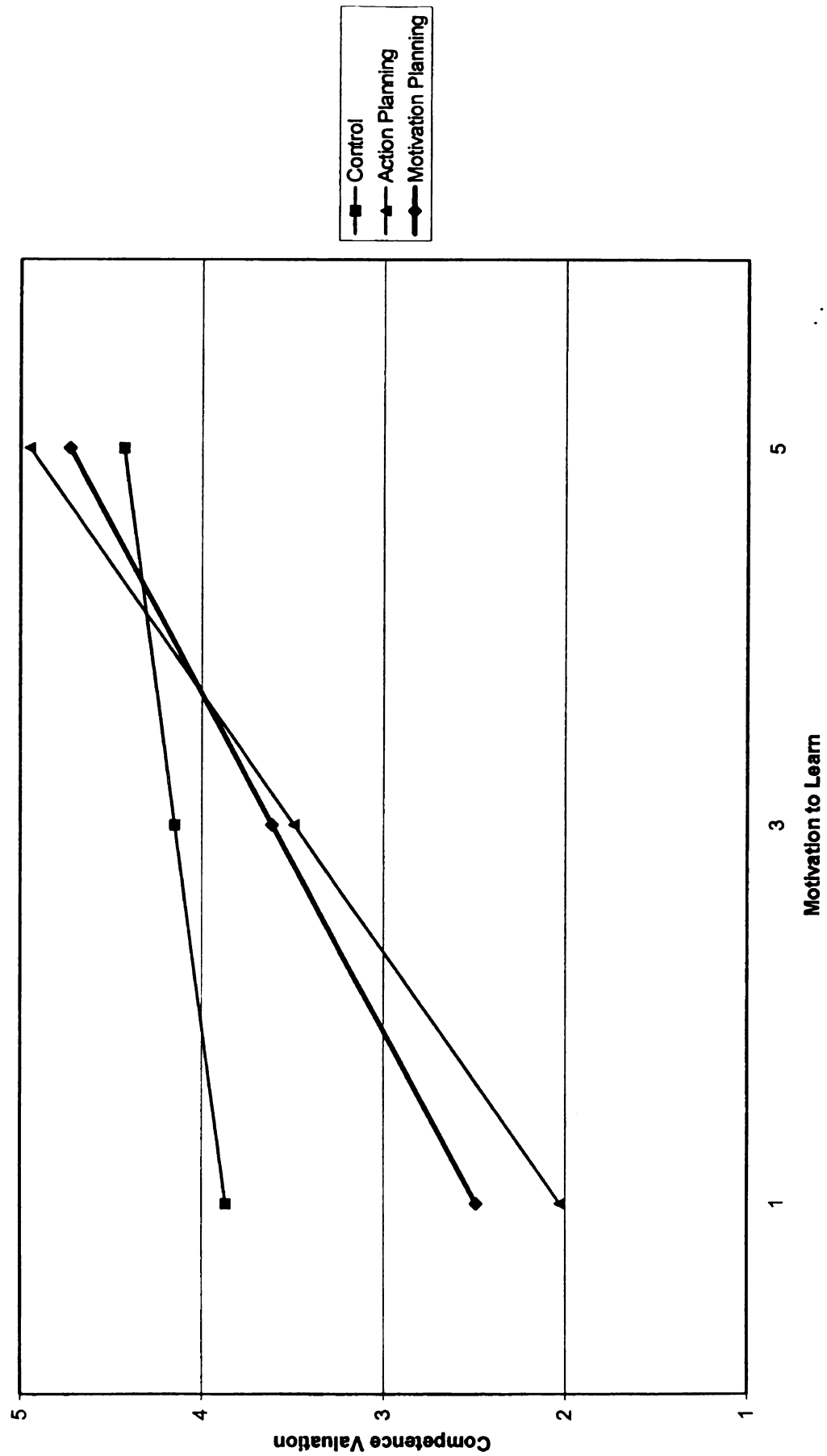


Figure 6. Interrelationships of motivational constructs.

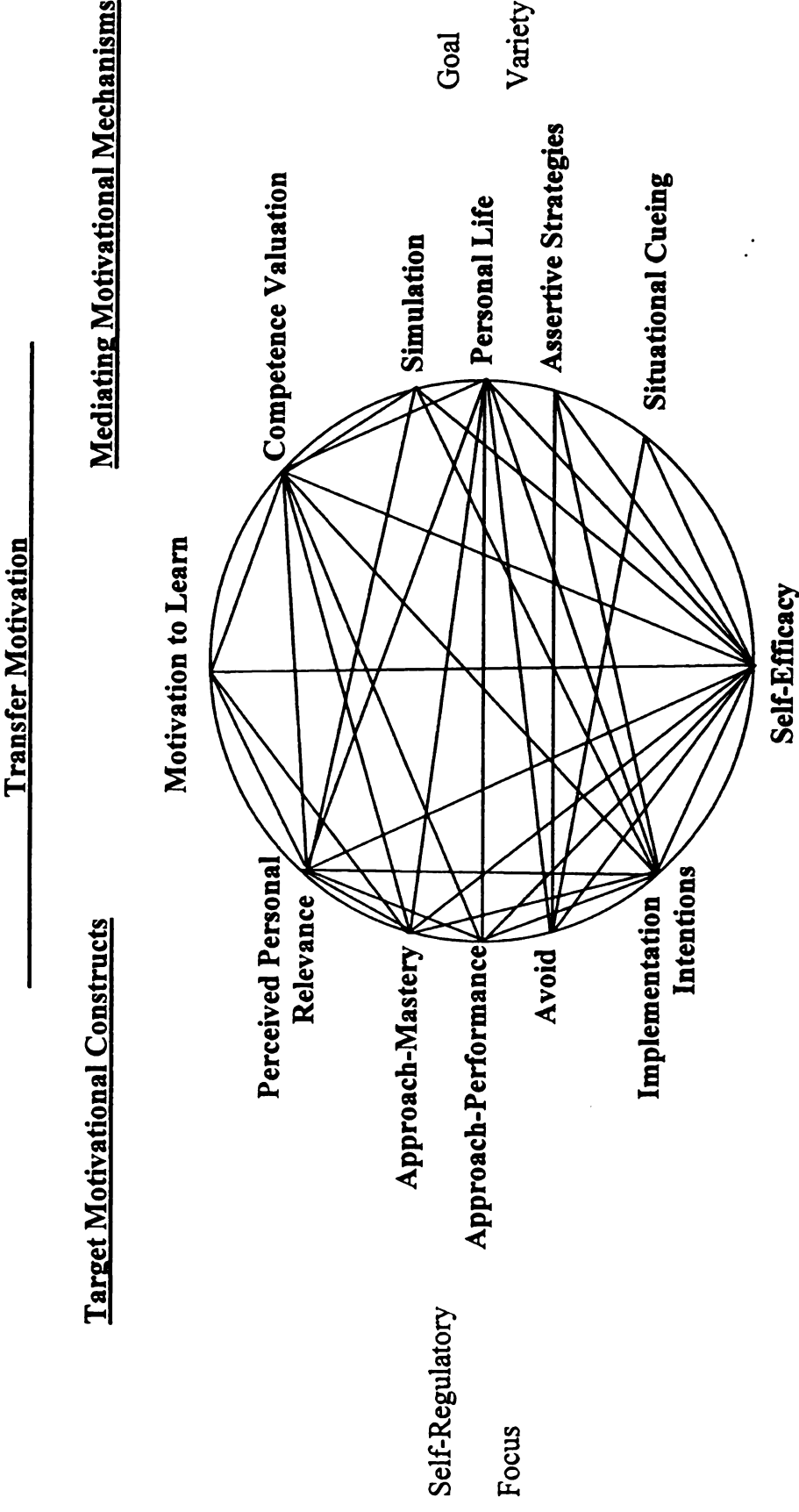


Figure 7. A promising model of the effects of motivation to learn, self-efficacy, and competence valuation on the quantity of transfer behavior and resulting performance quality.

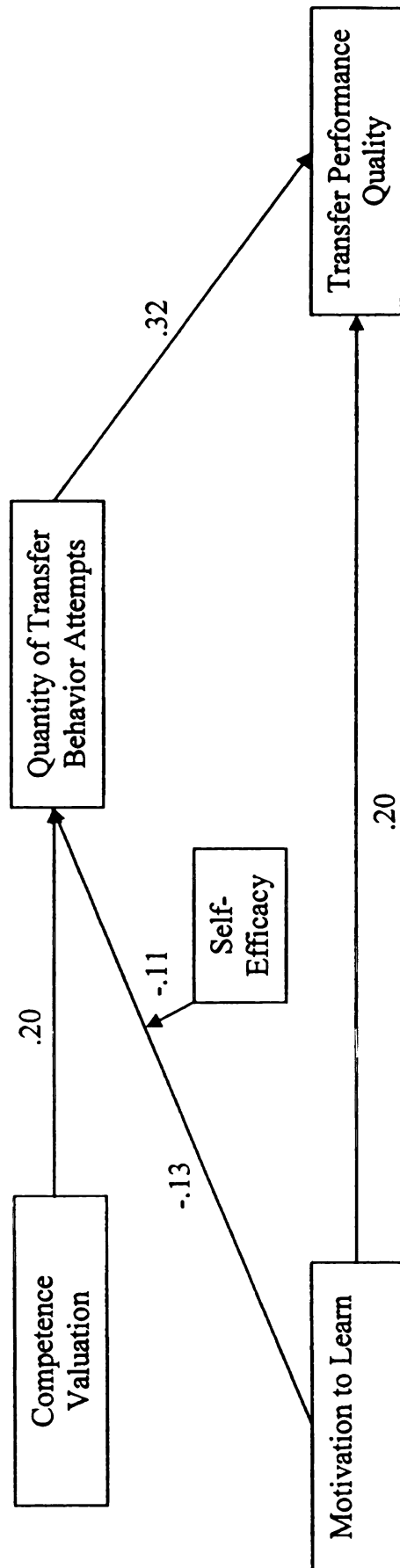


Figure 8. A promising model of the effects of motivation to learn, self-efficacy, and approach-mastery self-regulatory focus on the variety of transfer behaviors attempted and the resulting performance quality.

