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GROUP MEMBER EXPLANATORY STYLE AS A PREDICTOR OF GROUP PERFORMANCE AND TURNOVER INTENTIONS IN A MANUFACTURING SETTING

By

Laura Riolli-Saltzman

A DISSERTATION

Presented to the faculty of
The Graduate College at the University of Nebraska
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For the Degree of Doctor of Philosophy

Major: Interdepartmental Area of Business (Management)

Under the Supervision of

Professor Fred Luthans and Professor Steve Sommer

Lincoln, Nebraska

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DISSERTATION TITLE

Group Member Explanatory Style as a Predictor of Group Performance and Turnover Intentions in a Manufacturing Setting

BY

Laura Riolli-Saltzman

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GRADUATE COLLEGE
UNIVERSITY OF NEBRASKA

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Laura Riolli-Saltzman, Ph. D

University of Nebraska, 1998

Advisors: Fred Luthans and Steve Sommer

A field study of 50 three-person work groups in a major division of a large manufacturing operation in the Midwest investigated the potential effect of group explanatory style (optimistic or pessimistic) on group productivity and turnover intentions. Additionally, the moderating effect of group potency, group cohesion, and social identity on these relationships was also investigated. The theoretical foundation for this analysis was drawn from the literatures on learned helplessness, causal attribution, and explanatory style at the individual level of analysis. The extension presented here includes the expansion of self explanatory style to a group level of analysis.

Regression analysis indicated that group explanatory style was significantly related to turnover intention. Moderated regression analysis also suggested that group cohesion is significantly related to group performance and turnover intentions. Overall, this study demonstrated that optimistic group explanatory style has a negative main effect on turnover intentions. In addition, group cohesion has also a positive main effect on group performance and a negative main effect on turnover intentions. The hypothesis that group explanatory style is significantly related to group performance was not supported. Further, the hypotheses that group performance was moderated by group

cohesion, group potency and social identity was not supported. The other hypotheses that group cohesion, group potency and social identity moderated turnover intentions were also not supported.

In regard to group explanatory style, this study suggests that today's organizations should devote particular attention to optimistic and pessimistic explanatory style as factors which are related to turnover intentions of their employees. Training with an optimistic explanatory style can solve some of the problems associated with high turnover as well as high recruitment and training cost. Additionally, an optimistic work culture will contribute to more effective work groups. Suggestions for future research include examining group explanatory style in other settings and varying group size and task interdependence.

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Finally, thanks go to my country, which taught me how to get ahead and be optimistic during hard times.

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CHAPTER 1

INTRODUCTION

This chapter provides an introduction to the study of group explanatory style. It will discuss the overall purpose of the study, the research objective, and the overall significance of group explanatory style for group productivity and turnover intentions in today's organizations

Introduction and Overview

Work teams and groups have received increased attention in theory, research and practice (Hackman, 1990; Hyatt & Ruddy, 1997; Liden, Wayne, & Bradway, 1997; Labianca, Brass, & Gray, 1998). While organizations in earlier times kept individuals occupied with simple tasks that were completed independent of other employees, evidence from business organizations and academic research show that today much more emphasis is placed on group work (Jackson, Stone & Alvarez, 1991; Creech, 1994). Management systems designed for large bureaucratic organizations are giving way to systems with delegated responsibility that employ small team concepts to manage people (Johnson & Packer, 1987). Other authors suggest that the use of work teams will improve firm competitiveness by stimulating innovation (Kanter, 1989), and increasing productivity and quality (Crech, 1994).

Characteristics of the work group can influence how co-workers assign responsibility for the causes of their group's success and failure. In addition, individuals as members of a group also make sense of the relationship between group characteristics

and group outcomes. Although group motivation has received specific attention in organizational research, the application of attribution theory to group settings has a long way to go. The majority of studies in attribution research have addressed explanations for events at the individual level of analysis (Martinko, 1995). Attribution research at the individual level of analysis has incorporated the idea that self explanatory style is related to work performance and turnover. Self explanatory style refers to "one's tendency to offer similar sorts of explanations for different events" (Peterson, Buchanan, & Seligman 1995: 4) or, put simply, the habitual way in which people explain the favorable and unfavorable events that happen to them (Peterson & Seligman, 1984). To date, self explanatory style has been related to such diverse outcomes as physical illnesses (Peterson, Seligman & Vaillant, 1988), depression (Seligman, Abramson, Semmel, & Von Baeyer, 1979; Robins, & Hayes, 1995), anxiety (Mineka, Pury, & Luten, 1995), academic performance (Peterson & Barret, 1987), productivity and quitting in insurance sales (Seligman & Schulman, 1986; Corr & Gray, 1996), and athletic performance in sport teams (Rettew & Reivich, 1995). Thus, explanatory style as a concept that is related to productivity and turnover has mainly been restricted to individual level orientations.

As noted by Erez and Earley (1993), such individualistic approaches ignore the importance of interpersonal relationships. A major aim of this study is to shed light on the potential impact of explanatory style at other levels of analysis (e.g., group and team level) on work productivity and turnover intentions (i.e., "conscious and deliberate willingness to leave the organization," Tett & Meyer, 1993, p. 262). The study of group attributional beliefs can add to the understanding of groups, in which research has been

traditionally focused with regard to group composition, group activities, group goals, group effectiveness, group conflict, and group development (Shaw, 1976; Shea & Guzzo, 1978).

Numerous studies in psychology have examined the possibility that certain individuals favor some explanations over others for different events (e.g., Peterson et al., 1995). As explained by Peterson et al., (1995), explanations are an important aspect of life. Although the major interest in explanatory style has been at the individual level of analysis, some work has been done to extend attribution theory to group settings, especially in sports (Zaccaro et al., 1987; Rettew & Revich, 1995). This extension suggests that when individuals work in groups they also generate ideas related to the relationship between group attributes and group outcomes (Hewstone, Jaspair, & Lalljee, 1982).

Although research offers enough evidence that people's beliefs about causation influence expectations which, in turn, influence behavior at the individual level (Weiner, 1987; Jones, 1976), it is not clear how group explanations are linked with group expectancies, and how they will influence collective behavior. There are many propositions concerning how expectancies influence individual performance and group performance (Howard, 1991; Van-Eerde & Thierry, 1996; Eby & Dobbins, 1997). Thus, the nature of the problems associated with leading and managing group efforts can be considered as a basis for exploration of group attributional perspectives (Martinko, 1995).

Purpose of the Study

Recently, calls have been made in the organizational behavior literature for more research on team-based psychological concepts in organizations (Sundstrom, De Meuse, & Futrell, 1990; Argote & McGrath, 1993; Mowday & Sutton, 1993; Langfred, 1998). Social psychologists have been preoccupied with studying causal explanations as characteristics of individuals, since those explanations do not exist apart from individuals. An argument can be made based on social identity theory that one's perception of himself/herself as a member of a group defines the group reality, and it is valuable to consider groups as a more complex reality versus the simple aggregation of the constituent parts (Guzzo, Yost, Cambell. & Shea, 1993). Continuing the work done by researchers in group potency (e.g., Sayles, 1958; Guzzo et al., 1993) and group efficacy (Gibson, 1996; Bandura 1997), the study of group-explanatory style is additive to the better understanding of group performance. It is proposed that this new construct of group explanatory style will add to the existing models of collective motivation and will explain additional variance in existing models of group performance.

By considering the possibility of increasing understanding of collective motivation, several researchers have explored constructs such as group potency and group efficacy (i.e., Guzzo et al., 1993; Gibson 1996). This work has explained additional variance in the existing models of group performance beliefs. However, research has not yet examined the group explanation of similar situations in the workplace. This study aims to provide evidence that while the other constructs characterize the group level of analysis, explanatory style can characterize not only separate individuals but also can be expanded to the group level of analysis. Group

explanatory style is defined as **the group's habitual and collective manner of explaining the causes of bad and good events happening to them.** By combining and adapting existing individual attribution questionnaires to measure group explanatory style, this study explains additional variance in the existing models of group performance.

Another new concept recently emerging, group potency, will be examined as a moderator of the group-explanatory style impact on performance. In a previous study, Silver, Mitchell, and Gist (1995) examined the moderating effect of self-efficacy on the relationship between attributions and performance. However, the current study proposes to extend the self explanatory style and self efficacy literature by adding to it the dynamic aspects of the group level of analysis.

Research Objective

The objectives of this study are threefold. First, the major purpose is to better understand conceptual issues related to group explanations that influence group expectancies, which, in turn, affect group performance. This objective is addressed within the framework of learned helplessness theory (Maier & Seligman, 1976) by investigating the relationship between group-explanatory style and both productivity and turnover intentions. The second purpose of this study is to assess the moderating role of group potency, group cohesion, and social identity in the relationship between group explanatory style and the outcome variables. A number of hypotheses drawn from the existing body of related knowledge are proposed. The third purpose of this study is to investigate the variables in a real world manufacturing setting. The main and moderator variables will be investigated through the administration of questionnaires to a large

number of homogeneous groups in a major division of a large manufacturing operation located in the Midwestern United States.

Statement of the Problem and Research Questions

The original learned helplessness theory (Maier & Seligman 1976; Maier, Seligman, & Solomon, 1969; and Seligman, 1975) and its reformulation (Abramson et al., 1978) are the theoretical basis for explanatory style studies at the individual level of analysis (see the review by Seligman, 1995). Seligman & Schulman (1986) found that explanatory style predicted survival and productivity among insurance agents. Following this line of research Corr & Gray (1996) confirmed that high positive attributional style (i.e., ascribing the favorable events to internal, stable and global factors) was more important than low negative attributional style (i.e., assigning unfavorable events to internal, stable, and global factors) in predicting successful sales performance. Additional empirical studies are required to test explanatory style at the group level of analysis, especially in determining how groups of individuals develop norms, which explain the good and bad events in their work environments.

Based upon the implications that explanatory style would have for employees working in teams and especially in a manufacturing setting, the following research questions will be explored in the study:

Question 1: ***Does group explanatory style impact group performance and turnover intentions?***

Question 2: ***How does the relationship between group explanatory style and both group performance and turnover intentions change in the presence of high and low group potency, group cohesion, and social identity.***

Plan of the Dissertation Presentation

This dissertation is organized into five parts: (a) Literature Review, (b) Hypotheses and Model, (c) Methods and Procedures, (d) Results, and (e) Discussion and Recommendations. In the following paragraphs the content of each chapter will be described briefly.

Several parts comprise the literature review (Chapter 2). Chapter 2 will discuss the learned helplessness literature (original and reformulated version) and learned helplessness deficits. Next, the focus will shift to explanatory style (which is associated with learned helplessness deficits) as the major construct in the study. Following this, attention will be given to the three dimensions of explanatory style: locus of control, stability, and globality. Considerable attention will be given to explanatory style's impact on performance and turnover intentions (Seligman & Schulman, 1986; Furnham, Sadka, & Brewin, 1992). Chapter 2 will also review the literature on groups and teams as one of the important elements of organizations. A rationale will be given for the existence of the group explanatory style concept integrating group literature and explanatory style literature. Finally, the hypothesized relationships of the moderating effects of group potency, group cohesion, and social identity on the type of explanatory style (independent variables) and team productivity and turnover measures (dependent variables) will be examined. Chapter 3 will address the specific hypotheses generated

from the literature review. Then, the theoretical model to be tested will be presented. Chapter 4 will discuss the research design, procedures, and measures utilized in this study. This chapter will provide a description of the sample, the research setting, and the dependent and independent variables used in the analysis. The procedures to test direct relationships and moderating effects will be given in relation to the hypotheses developed from the existing body of knowledge. The statistical analysis will indicate the extent to which group explanatory style is an integral part of group norms and group dynamics. Chapter 5 will present the review of the overall findings, including significant and non-significant ones. Significant and non-significant findings for each of the direct and moderated relationships will also be addressed. Chapter 6 will discuss the contribution of this study to the previous research regarding explanatory style. Strengths, imitations, future research directions, implications for practice, and conclusions will be provided.

CHAPTER 2

A LITERATURE REVIEW OF EXPLANATORY STYLE, GROUP POTENCY, GROUP COHESION, AND SOCIAL IDENTITY

As defined in Chapter 1, explanatory style is one's habitual tendency to explain the causes of bad or good events happening to himself/herself (Seligman, 1995). Explanatory style not only responds to the question of how people use information to arrive at their causal beliefs but also addresses the more important question of how people's attributional beliefs influence their motives and emotions (Weiner, 1986). This chapter offers a general review of explanatory style literature in order to form a group level perspective, and integrates some of the group variables hypothesized to be related with this construct, such as group potency, group cohesion, and social identity.

THEORETICAL FOUNDATION OF EXPLANATORY STYLE

The explanatory style construct follows the tradition within psychology that focuses on people's thoughts and beliefs and how these influence motivation, emotion and behavior. Specifically, explanatory style draws upon and uses the foundation of learned helplessness and attribution theory. The first two sections here will define and explore the background on the theories of learned helplessness and attribution theory, which are the two major foundations of explanatory style.

Learned Helplessness

Overmier and Seligman (1967) first introduced the term "learned helplessness". Learned helplessness consists of three important components: contingency, cognition, and behavior.

The first component involves the relationship between the person's action and the outcome that the individual experiences. Uncontrollability, which refers to "a random relationship between an individual's actions and outcomes" (Peterson et al., 1993, p. 8), is the most essential contingency. When an individual's actions produce outcomes confidently, the opposite contingency of controllability occurs. Another contingency would be the likelihood of future recurrence of an outcome.

The second component of cognition involves the way in which individuals perceive and explain contingency. This perception and explanation of the contingency is used to form an expectation about the future. For example, a failure to solve a puzzle can be explained by a person as caused by hard luck or stupidity. If a person experiences a failure which is believed to be caused by stupidity, then this person will anticipate failure again when faced with the situations requiring intelligence.

The third component of behavior refers to observable consequences. Helplessness often refers to passivity or activity in a different situation from the one in which the individual first encountered uncontrollability. If the individual gives up the initiation of any action to control the situation, other consequences might follow from the individual's expectations of future helplessness, such as cognitive retardation, low self-esteem, sadness, loss of aggression, and immune system changes (Peterson et al., 1993)

Over the last two decades research has shown that people faced with uncontrollable events often manifest "disruption of behavior" (Maier & Seligman, 1976). Besides the well-known experiments involving electric shocking of dogs, early lab experiments with college students (e.g., Hiroto, 1974; Hiroto & Seligman, 1975) also supported the hypothesis that concluding outcomes were uncontrollable and were associated with cognitive, motivational, and emotional deficits (Abramson et al., 1978). In other words, experience with uncontrollable events can lead to the expectation that no planned behavioral response will influence future outcomes. The resulting motivational deficits, manifested as retarded initiation of voluntary responses, are a result of the expectation that responses are in vain. The cognitive deficit is comprised of difficulties in learning given that responses are not seen as producing outcomes. Finally, the depressed affect (e.g., frustration or sadness) is an emotional consequence of learning that outcomes are independent of responses (Garber, Miller, & Abramson, 1980).

It is important to note that the initial argument was mainly based on animal experiments. As a result, much controversy has resulted from the inadequacy of generalizing learned helplessness theory to human beings. The original helplessness theory as explained by Seligman (1975) had four important drawbacks. First, it could not clarify when helplessness deficits would be permanent and when they would be temporary. Second, it could not clarify when helplessness deficits would be generalizable in different settings and when they would be specific to one setting. Not all people showed prevalent deficits generalizable across situations. Third, it could not clarify why people lose self-esteem when they experience helplessness. Finally, the original theory failed to notice the range of direct responses that individuals displayed

when encountering uncontrollable events and thus did not consider individual differences in susceptibility to helplessness (Miller & Norman, 1979).

To address these gaps, a new formulation of learned helplessness was made by Abramson et al., (1978). According to this reformulated theory, explanations people give for good and bad outcomes affect their expectations about future outcomes, and these explanations affect their reaction to outcomes. The questions unanswered by the former helplessness theory were answered by the reformulation by taking into consideration that helpless people make causal explanations for the uncontrollable events they encounter. These causal explanations affect self-esteem as well as Seligman's generality deficits. In other words, when individuals encounter important events, they ask what the cause was. Their answers affect the way in which they will respond to those events. In general, the helplessness reformulation has focused attention on causal explanations and on outcomes reflecting helplessness (Peterson et al., 1993).

Building upon the previous work done by attribution theorists, especially Weiner (1985), who discussed five underlying causal dimensions: internal/external, a stability dimension, a controllability, a global/specific and intentionality. Abramson et al., (1978) found three dimensions to be relevant to learned helplessness theory. In relation to internal or external causes, the theory predicts that an internal explanation for uncontrollable events is associated with personal helplessness. Because the uncontrollability is attributed to something about the particular person, it will be associated with loss of self-esteem. However, external explanations are related to universal helplessness (outcomes are uncontrollable for all people) because the uncontrollability is ascribed to something about the situation that would affect anybody

placed in it, thus leaving self-esteem unaltered (Peterson et al., 1993).

Another dimension of concern is stability versus instability over time. The theory predicts that in the case of an unstable explanation of events, the helplessness is temporary because the unstable cause will go away. In the case of stable explanations, helplessness will persist because the cause will last forever (e.g., one fails the test because of a headache, which is an unstable cause, versus stupidity, which is a stable cause) (Peterson et al., 1993, p.149).

The last dimension identified by Abramson et al., (1978) is related to globality/specificity. Global explanations (affecting a variety of outcomes and situations) will be followed by widespread debilitation, whereas specific explanations (affecting few outcomes and situations) will be associated with less widespread helplessness in proportion to the specificity of the cause (Peterson et al., 1993). This dimension is orthogonal to the locus of causality and stability and determines if helplessness is cross-situational or applies only to one situation. For example, a person performs poorly in a training computer course that requires an aptitude for statistics. An attribution to lack of intelligence as a global attribute implies that failure will occur in a number of situations. If the failure is attributed to the lack of statistical skills, future failure should occur in those situations which involve statistical skills, and helplessness is situation specific.

The reformulated helplessness theory still considers how the deficits (i.e., emotional, cognitive, and motivational) are related to uncontrollable events, as well as expectancies related to the independence of the future response-outcome. In addition, the causal attributions acquire more importance in influencing the basic nature of the helplessness deficits (Peterson, Buchanan, & Seligman, 1995) as a way of considering the

variation of individuals' responses to uncontrollable events (Abramson, Seligman, & Teasdale, 1978).

Attribution Theory

Heider's research in 1958 is widely considered to mark the birth of attribution theory. He tried to respond to the question of how people explain their own actions and others' actions. According to Heider (1958), individuals function as "naive psychologists", developing causal explanations for events. Beliefs about causation affect expectations and then the following behavior. Attribution theory is concerned with perceived causes of events and the consequences of those perceptions. Further, the theory of attribution was given increased importance as a result of the attention that cognitive variables received during the 1970's. The transition from "naive psychology" to a modern theory of attribution was made by the work of various researchers such as Jones and Davis (1965), Kelley (1973), and Weiner, (1986). These researchers were especially interested in investigating how beliefs that resulted from attributions influenced people's motives (Weiner, 1986).

There is no single theory of "attribution" but different attributional perspectives (Kelley & Michella, 1980; Martinko, 1995). Attribution perspectives can be classified as self/other attributions. Weiner's (1986) theory of achievement motivation deals with how individuals explain their successes and failures and the consequences. Thus, this theory can be classified as self-attribution theory. Kelley's (1967) and Green and Mitchell's (1979) models are concerned primarily with how observers assign responsibility for the outcomes of others. For example, Wood and Mitchell's (1981) study illustrates leaders'

beliefs about how individuals' responsibility for events affects the type of disciplinary actions they select. The major focus of the theory has been on the way that individuals process information by considering the causes of their own and others' events (Martinko, 1995). An explanation of causal reasoning within the interactive context (i.e., in a group setting) is in its beginning steps. The application of attribution style to the group setting suggests that individuals as members of the group also generate a naive theory of the relationship between group characteristics and group outcomes. The key to understanding the group explanation of good and bad events is to be found in the on-going interaction process among the group members. During this process of sharing experiences if an agreement is reached while explaining the successes and failures of the group then the norm of group explanatory style is developed. However, if discrepancies and incompatible explanation take place then group cohesion and other group issues will suffer (Jehn, 1994; 1995).

Even in light of these varying perspectives, "attribution" generally refers to the evaluation of an event or outcome (Peterson et al., 1995). Thus, it is a broad category which includes subcategories such as habitual causal explanation of the outcome, referred to as explanatory style. Peterson et al., (1995) explain the realistic nature of explanatory style versus arbitrary beliefs resulting from attributions by stating "attribution has connotations of projection, as if the causal beliefs people entertain are somehow arbitrary). This is a misleading implication, because often the reality of an event is of overriding importance in how it is explained"(p.10).

EXPLANATORY STYLE

Drawing from the previous extensive research on learned helplessness and attribution theories we can build the foundation for the newly emerging construct of explanatory style. Subsequent research on explanatory style resulted in a number of attempts to assess the validity of the construct (Anderson et al., 1988), and attempts to develop sound instruments for measuring explanatory style such as the Attribution Style Questionnaire (ASQ) by Peterson et al., 1982, and the Organizational Attritional Style Questionnaire (OASQ) by Kent and Martinko, 1995. With these dynamics in mind, the following section defines what an explanatory style is and why it is necessary to study this type in contemporary organization.

The Nature of Explanatory Style

In defining explanatory style, it is important to include the reformulated learned helplessness theory utilized across empirical studies (Seligman, 1991). Explanatory style is considered as a cognitive variable that is related to the individual's frequent way of explaining the causes of bad and good events that take place in everyday life (Peterson & Seligman, 1984). According to Abramson et al.(1978), these explanations that people give for good and bad outcomes influence their expectations about future outcomes, thus affecting their reactions to outcomes.

Explanations can vary along several dimensions, which in turn influence helplessness deficits (Nolen-Hoeksema, Girgus, Seligman, 1986). Causes can be stable or unstable over time. This stability dimension was researched by Weiner et al., (1971).

When people explain a bad outcome with a cause that is stable, helplessness deficits will be persistent because they will expect the bad outcome to happen again in the future. Many areas of the individual's life can be affected by a cause or only one area can be affected. In the case of generalization of learned helplessness across domains of a person's life, a person explains a bad outcome with a cause that has a global effect versus a cause that influences only that particular outcome. Finally, there are internal and external causes of an outcome. If a bad event is explained by an internal cause instead of an external one, according to Abramson et al. (1978) the person will show lowered self-esteem.

Pessimistic/Optimistic Explanatory Style

Individual differences were explained in Abramson et al., (1978) by susceptibility to helplessness. In this respect, people who habitually explain bad events with a pessimistic explanatory style (i.e., internal, stable, and global causes) probably will experience general and lasting helplessness symptoms more than people with a optimistic style. Thus, an individual who habitually explains bad events as " I caused it; it's an ongoing thing; everything else will go wrong" (i.e., internal, stable, and global) is predisposed to helplessness when he/she encounters bad events (Seligman, Abramson, Semmel, & Von Baeyer, 1979). This is related to the concept of "ego defense," (self-serving bias) which is the tendency of individuals to attribute success to internal factors and failure to external ones (Heider, 1958; Jones & Davis, 1965; Kelley, 1967; Chacko & McElroy, 1983; Weiner 1986). Egocentric attributions provide a means to increase or maintain self-esteem of the actor by permitting a person to take credit for success while

avoiding blame for failure (Schlenker et al., 1976). The ego-based origin of internal attributions of success and external attributions of failure has been supported in a number of research efforts that identified the protection of self-esteem as the source of such attributions (Miller & Roose, 1975; Miller, 1976; Mitchell et al., 1981; Clapham & Schwenk, 1991)

On the other hand, an optimistic explanatory style is characterized by external, unstable and specific explanations for bad events (Peterson & Seligman, 1984). Internal, stable, and global explanations for good events lead to augmented achievement motivation after positive events (Seligman, 1991).

As clarified by the reformulated learned helplessness theory, an individual with a "pessimistic" explanatory style is more likely to exhibit helplessness deficits when confronted with bad events than individuals with an optimistic style (Seligman, Abramson, Semmel, & Von Baeyer, 1979; Seligman & Schulman 1986). Learned helplessness deficits, which are characterized by passivity, depression, poor problem solving, low self-esteem, lowered quality, decreased persistence, decreased initiation of tasks, and lower expectations for future success, have an important impact on organizational behavior research because these deficits are related to subsequent motivation and performance in most occupations (Peterson, Seligman, & Valliant 1988). As mentioned before, the three causal dimensions (internal/external, stable/unstable, and global/specific), along which explanations can vary, greatly influence the helplessness deficits.

Causal Dimensions

Since causal structures underlie explanatory style, the appropriate dimensions should be clarified. Researchers (Abramson et al., 1978; Weiner, 1985) have suggested a number of dimensions. However, the three most appropriate for the study of explanatory style are locus of causality, stability, and globality (Seligman & Schulman, 1986).

Locus of Causality (LOC): Heider (1958) first identified this dimension. LOC differentiates between factors "inside" and "outside" the person (Heider, 1958). Rotter (1966) further specified this dimension. It is now one of the most important dimensions in attribution theory (Abramson et al., 1978). It is argued that this important dimension must be included in research concerning the causal structure of attributions (Weiner, 1985). A meta-analysis of attributional style and depression by Sweeney, Anderson, and Bailey (1986) found a large effect size for the "inside" dimension of LOC. Although there is strong support for the internal/external dimension, the major criticism is of the presupposed inverse relationship between the two factors. There is research evidence that supports the independence of the internal/external dimension of LOC (e.g., Solomon, 1978; Peterson & Villanova, 1988).

Stability: Weiner et al., (1971) interpreted the stability dimension as variability over time. Some causes can be explained as stable (i.e., lasting over time, "recurrent", e.g., ability), whereas others can be explained as unstable (i.e., short-term, "intermittent", e.g., mood) (Abramson et al., 1978). There is substantial evidence supporting the stability dimension. Sweeney et al., (1986) recorded medium effect sizes for the stability dimension in the study of depression. Thus, the stability dimension is accepted widely as

one of the major dimensions in attribution theories (Abramson et al., 1978; Weiner 1985; Russell et al., 1987).

Globality: Abramson et al., (1978) utilized this important dimension while explaining learned helplessness theory. The global/specific dimension refers to the variety of outcomes that the cause affects. Helplessness occurs across situations when the explanation is global versus a particular situation in the case of specific attribution (Abramson et al., 1978). There are some criticisms of the global/specific dimension, such as the in studies where this dimension did not emerge at all (Weiner, 1985). However, studies of attribution style have supported the role of the global/specific dimension in the learned helplessness model (Alloy, Peterson, Abramson, & Seligman , 1984; Sweeney et al., 1986).

In general, as mentioned by Martinko (1995), the expectancies (i.e., the belief that one's effort will lead to the necessary performance) (Vroom, 1964) are shaped by the cognitive structures more than the specific attributions made about the events. There are more attributional dimensions in addition to the three mentioned above (e.g., intentionality; controllability). However, since our domain of interest is learned helplessness theory and explanatory style, the locus of causality, stability, and globality dimensions are the ones most relevant to explanatory style. In general, the research in this area has been supportive of the dimensions of explanatory style. The meta-analysis conducted by Sweeney et al., (1986), which included over 100 studies, concluded that the literature as a whole supports belief that depression is positively related to internal, stable and global attributions for failure and external, unstable, and specific attributions for successes. Investigations of the relationship between attributions and other outcomes

such as loneliness (Anderson et al., 1983), burnout (Wade et al., 1986), hardiness (Hull et al., 1988), stress (Mikulincer & Solomon, 1983), and turnover (Corr & Gray, 1996) have also produced findings supporting the validity of the dimensions of explanatory style.

Clinical and Social Explanatory Style Research:

Explanatory style as a personality characteristic was introduced by Abramson, et al., (1978) in their article about the critique and reformulation of learned helplessness theory. This reformulated helplessness theory was applied by Abramson et al., (1978) to depression. He tested the hypothesis that people who habitually explain bad events by internal, stable, and global causes will be more likely to experience depression than people who explain the same events as external, unstable, and specific. The same hypothesis has been tested and confirmed by a number of studies using different research settings including both adult and child subjects (Peterson & Seligman, 1984). For example, the theory of learned helplessness was administered on 96 elementary school children and it was found that the maladaptive explanatory style was significantly correlated with a high depression score (Seligman, Kaslow, Tannebaum, Alloy, & Abramson, 1984). Furthermore, explanatory style in the first testing period predicted the children's level of depression six months later (Seligman et al., 1984). Kaslow, Rehm, Pollack, and Siegel (1984) replicated the results in a later study. Another longitudinal study done by Hoeksema, Girgus, and Seligman (1986) tested the hypothesis of a significant interaction between explanatory style and life events in the development of depression in children. The study supported the hypothesis that children with the maladaptive explanatory style showed more depression and achievement problems than

children without this style (Hoeksema et al., 1986).

The relation of pessimistic explanatory style to health problems is another domain of clinical research of explanatory style. Peterson, Seligman, and Valliant (1988) found that individuals who explained bad events with stable, global, and internal causes at age 25 experienced more health problems later in life than individuals who made unstable, specific, and external explanations. Even when prior physical and emotional health were controlled, pessimistic explanatory style still predicted physical illness two or three decades later (Peterson et al., 1988).

Another domain in which explanatory style was tested is achievement in school and work. Schulman (1995) reviewed studies which explored the predictive relationship between explanatory style and both school achievement and work achievement. In the 1987 Peterson and Barret study, students with an optimistic explanatory style received better grades in their first year of college than those with a pessimistic style. Mixed support of the reformulated learned helplessness theory was found in the study of Schulman, et al., (1990). They explored the question of how to predict first semester college grade point averages (GPA) above and beyond traditional measures of ability such as achievement test scores and high school rank. The study found that Attributional Style Questionnaires (ASQ) did not correlate with GPA's and that negative explanatory style did not predict GPA beyond traditional measures (Schulman et al., 1990).

Occupational Explanatory Style

The findings above illustrate the historical foundation of explanatory style research in the clinical and social areas. However, the range of outcomes involving

passivity and pessimism is wide and can also involve occupational outcomes. However, this application has not been widely explored. In fact, the extension of explanatory style from clinical and social areas to occupational ones has been addressed only recently (Corr & Gray, 1996; Furnham et al., 1992; Seligman, 1991). Weiner (1986) speculated about the importance of attributions in achievement motivation. Although, many studies have been done in occupational settings about the role of attributions in the working place (Mitchell & Wood, 1980; Knowlton & Ilgen, 1980; Liden & Mitchell, 1985; Heneman et al., 1989; Ployhart & Ryan, 1997) little substantial research has been done about occupational explanatory style (Furnham et al., 1992). Weiner's (1986) motivation and emotion theory was based upon the attributions individuals make for their success and failures. The question addressed in recent work is how one's habit of explaining bad events is associated with work performance (Seligman & Peterson, 1986; Hoeksema et al., 1986).

One of the occupations which has been researched extensively is life insurance sales agents who encounter repeated failures, rejections, and indifference from perspective clients. The first study done by Seligman and Schulman (1986) utilized a sample of 94 experienced life insurance sales agents testing the hypothesis that explanatory style predicts productivity and turnover. As predicted, the individuals who interpreted failure as internal, stable, and global were less persistent, produced less, initiated fewer sales attempts, and quit more frequently compared with those who were characterized by a more optimistic explanatory style.

Another study was done by Corr and Gray (1996) in the U.K. and examined the role of attributional style in the performance of experienced sales people in financial

services. Again, the rationale behind using sales people is that they are sensitive to failure and are likely to respond to those failures with a pessimistic explanatory style (Corr & Gray, 1996). The study found that sales people with a positive attributional style were more successful than their colleagues with a less positive attributional style and achievement motivation (Corr & Gray, 1996).

The theoretical importance of the above findings is that they offer mixed support for the hypothesis that a pessimistic explanatory style predicts poor performance and that this pessimism-performance link is enduring (i.e., not situational). The results of these studies suggest that a pessimistic explanatory style relates to workplace performance deficits as well as the depression syndrome (Furnham et al., 1992).

Extending Explanatory Style to the Group Level

The issue of causal explanations becomes even more complicated as research moves from the individual level to the group level. Various studies in social psychology have addressed group cognitive activity. However, it should be noted that this interest in group research in the earlier days of social psychology did not generally carry into the present. With very few exceptions (Schlenker & Miller, 1977; Wright, Luus & Christie, 1990), social psychologists have been concerned more with individual cognitive causal explanation processes (Abramson et al., 1978; Peterson & Seligman, 1984; Schulman et al., 1990; Seligman, 1991).

Research on groups in organizations gained popular attention in the organizational behavior field in the 1980's (Goodman, Ravlin, & Schminke, 1987; Guzzo & Shea, 1992). According to current models, the major benefit offered by groups is an increase in

productivity (Campion, Medsker, & Higgs, 1993). However, the definition of "groups" is unclear (McGrath, 1984). The difficulty in defining groups has come to light because of fuzzy lines between groups and non-groups. There are as many definitions as there are group researchers. For the purpose of this study, the group definition of Bar-Tal, (1990) is used. Bar-Tal referred to a group "as a collection of individuals with a definite sense of membership and shared beliefs. Those beliefs in turn guide group behaviors concerning collective issues" (p. 41). This definition includes the notion of group belief. As introduced on Chapter 1, because pessimistic/optimistic explanatory style is a group belief shared by the group members with important cognitive, affective, and behavioral implications.

Research done on group beliefs started with the assumption that group beliefs were neither absolutely individual characteristics nor wholly group characteristics (Sayles, 1958; Guzzo et al., 1993). On the other hand, researchers do suggest that group beliefs can be characterized as attributes of the group or attributes of the individual, but they can't be simultaneously group and individual attributes (Crockner & Luhtanen, 1990). Therefore, this contradiction was resolved by using the consensus for developing group norms and sharing them among the group members. During the process of reaching this consensus, group members explore what each contributes to the group and integrate information to better capture patterned interactions among group members that constitute the collective history of the group as evidenced by group norms.

This study looked at the explanations shared by individuals of the same group and accepts the fact that attributions exist in individuals' minds. As defined in Chapter 1 group explanatory style is the group's continuous and collective manner of explaining the

causes of successes and failures occurring to them. Even so group members might hold the same causal explanations due to similar experiences, social process influences, and common contexts to which group members are exposed.

Defining a characteristic of a group requires certain conditions which are different from defining the same characteristic for the individual (Bar-Tal, 1990). First, the group construct should reflect the complete group as one unit versus considering each member separately. Second, members of the group should agree concerning the construct of interest. Third, the group construct should distinguish between groups. Finally, the processes which takes place within the group should reflect the origin of the focal construct (Bar-Tal, 1990).

As a result of the increase in the use of groups and teams in the workplace, there is a need to better understand group-level constructs. Further, if group characteristics and performance are the major concern rather than individual performance and attributes, then the group attributions should reflect the expectations of the group as a whole and should be expressed by the whole group versus the expectations of, and expressed by, the individual as a group member (Gibson, 1995). The group dynamics which capture the social interaction that happen within the group should be captured by the group level construct, and the collective nature of the new concept should be emphasized.

There are few attempts to link explanatory style and groups. Rettew and Reivich (1995) state that the domain of sports lends itself to the exploration of group explanatory style. Studies done in basketball, swimming, and baseball, using the content analysis of verbatim explanations (CAVE) technique (i.e., using written or spoken materials to derive explanatory style) found that teams with a more optimistic explanatory style for

bad events performed significantly better in games following a loss than teams with a pessimistic explanatory style (Rettew & Reivich, 1995). Although these studies present a perspective on group explanatory style, in the majority of these studies' explanatory style was derived from media quotations. Therefore, it can be argued that this source of information is subject to distortions and fails to capture the dynamics and collective nature of the group.

This study investigates group explanatory style in a manufacturing setting. Group explanatory style, as previously defined in Chapter 1, is the way to explain the causes of bad and good events occurring to a group which is shared by the group members. Defined in this way, group explanatory style refers to habitual causal explanations not only related to specific task events but also to other events related to the social interactions and complex dynamics in which group members are engaged. Since this new construct should reflect the group as a whole, individual members should agree on the construct. The measure utilized to capture this concept will be an approach that aggregates individual assessments of group explanatory style (i.e., group events).

Comparing and Contrasting Self (Individual) and Group-Explanatory Style

Self explanatory style was developed by Peterson and Seligman (1984) as a cognitive variable to capture an individual's habitual way of explaining the causes of good and bad events. Group explanatory style as used here borrows from this concept of self -explanatory style. However, the main emphasis in this group concept will be the dynamics and social interactions that characterize the group level versus individuals as members of the group. Before getting into the moderators and group characteristics it is

important to distinguish between explanatory style at the individual level and explanatory style at the group level.

Similarities. The research on attribution theory and explanatory style has found evidence that people do engage in a process that involves the analysis of achievement outcomes and the assignment of causes to these outcomes. The application of these theories to the group setting suggests that individuals as members of a group also generate a naive theory of the relationship between group characteristics and group outcomes. Therefore, individuals and groups are interested in explaining the causes of their successes and failures.

As discussed previously, attribution researchers seem to agree at the individual level that pessimistic and optimistic explanatory style predicts individual performance and turnover (Seligman & Schulman, 1986; Buchanan & Seligman, 1995; Corr & Gray, 1996). To make the group analogy, individual group members are interested in explaining the causes of bad and good performance, with the difference being that the performance is measured at the group level. It should be noted that prior performance is an important antecedent to the attribution made for all levels of analysis. (Martinko, 1995). Thus, explanatory style at individual and at the group level predicts performance and turnover.

In addition to the above, individual and group performance are explained in relation to the occurrence of good and bad events which happened in the past. On this basis the expectancies for the future are formed at the individual and group level. When bad events related to performance are repeated and explained continuously as internal, global, and stable, pessimistic explanatory style is predominant. Therefore, self and

group explanatory style both consider and are built upon the individual and group past experiences.

Keeping these dynamics in mind the measurement issues for both individual and group domain will be similar. At both levels of analysis the three dimensions of internal/external, stable/unstable, and specific/global will be prevalent in addressing respectively individual and group issues as explained at the methods section. Thus, individual and group explanatory styles have similar patterns of successes and failures and similar outcomes predicted.

Differences. After considering the above similarities, it should be noted that there are different processes and forces that take place as a group-explanatory style is developed. Concerning the differences between the work done by an individual and the work done by members of a group, Zander and Medow (1963) argue that it is easy for individuals when they work alone to set expectations for the future because the responsibility is clear. Group members differ in their expectations from single individuals because the job responsibilities are unclear (Zander & Medow, 1963). For instance, if a three-person team is patching a hole in the street, and the patch is too soft, it is impossible to determine which employee did not perform adequately. Therefore, establishing the joined expectancies for the group of individuals which will effect the behaviors of the group members in the case of group explanatory style will be a different process compared to individual expectancies.

In addition to the above, in order for the bad events to be continuously explained as internal, global, and stable, a consensus among the group members related to attribution about outcomes should exist, as opposed to group member disagreement

related to attribution about outcomes. If individual explanatory style is a function of individual learning, group explanatory style is a function of the additional influence of group interaction dynamics. Wright, Luus, and Christie (1990) argue that group discussion causes an individual to shift in a given direction to the extent that the discussion exposes that person to persuasive arguments favoring that direction. A group judgment following the discussion is usually more extreme in the same direction than the average of members' pre-discussion judgments (Bar-Tal, 1990). Group discussion especially increases the sensitivity to and use of consensus information by sharing in verbal exchanges (Wright et al., 1990). If as a result of the interactive group discussion and shared opinions a consensus is reached, then group explanatory style as a group norm will be developed and maintained from the group members. Otherwise, if group members don't come to a consensus and "fight" over the cause of outcomes occurs, then conflict take place (Forsythe, 1990). In the case of conflict the individual satisfaction and group issues such as cohesion will decline (Gladstain, 1984; Schwenk & Cosier, 1993), and what it is important for our study is that there will be no unified group explanatory style.

Thus, it is proposed that group discussion may lead to the development of consensus and subsequently to the development of group explanatory style. Further, in groups with such a consensus, we should see the subsequent group-created influences such as group efficacy, norms, etc.

The problems concerning the group level of analysis are commonly discussed among the researchers who confront such issues (e.g., Klein, Dansereau, & Hall, 1994). Klimoski and Mohammed (1994) argue that there has been an increase in the interest of

researchers in understanding the group cognition which is based on individual members but goes beyond just the sum of individual properties (i.e., perceptions, expectations, thoughts, and beliefs). Although, individual belief structures play a powerful role in the development of socially shared cognition, the individual-level focus in the study of cognition is no longer adequate to perceive cognition in all its variety. The "team mental model" concept used by Klimoski and Mohammed (1994) is related to what is being shared among team members as a collective affect expectation (p. 414). The focus is on the interpretation of the stimuli that are affecting individuals in a group context. What is being modeled is the latter attempt to make sense out of them. Group mental models may reflect the nature of the demands that must be responded to by the group, the attributes relative to the group functioning, or the behavior pattern of group members when they interact with one another, as well as projected future expectations (Wellens, 1993). Thus, in general, group members try to understand what is going on about them through the categorization of what they "know". This allows members of the group to determine the causes of events, and, as explained by Rouse and Morris (1986), to choose appropriate courses of action.

It is important to define what is meant by "shared cognition" among group members. This doesn't refer to a cognitive representation that is identical among group members, but rather to how "group members hold compatible models that lead to common expectations" (Klimoski & Mohammed, 1994, p. 421). When individuals verbalize their thoughts in front of other group members, conceptualizations are shared. Members of the group often rely on their group to help interpret a given situation (Levine, Resnick, & Higgins, 1993). Thus, members of the group develop a shared

concept for interpreting good and bad events which are relevant to their group and a group explanatory style for the events faced by their group. This process is similar to group norms, which are "regular behavior patterns that are relatively stable and expected by group's members" (Bettenhausen & Murnighan, 1985, p. 350). Therefore, explanatory style might be considered similar to a group norm that develops in previous situations and transfers to similar situations which include not only the task related work but also the dynamics and social interactions the among the group members.

In light of the differences between the two levels of analysis when considering their formation and operationalization, some distinctions can be drawn. Since explanatory style deals with the habitual way of explaining bad and good events, the past method of causal explanation is of great importance (Peterson et al., 1995). Individuals draw upon their own personal experiences in the case of self explanatory style. As Bandura (1997) explains, groups have to count upon their collective history. It should be noted that the collective history goes beyond the individual experiences of members of the group (Gibson, 1995). When considering the past good or bad events to establish the norm of habitually explaining the causes of such events, the group should consider the collective history (which may be different from the individual histories) in order to reach an agreement about the way of interpreting such experiences.

In addition to the above, self explanatory style is consistent across explanations offered by individuals for different events. Group explanatory style, on the other hand, involves the dynamics and social interactions between the members of the group and is less consistent across the explanations offered by members of the group for different events. As the group interacts, the impressions of the group performance will be

negotiated among members to achieve a collective explanation of the causes of group performance. Therefore, assessed collective explanation about good and bad performance events does not necessarily reflect any one member's opinion. Instead, the collective responsibility for performance outcomes is shared among all group members as opposed to being a function of a single person. Thus, inconsistencies due to variance among group members might be seen in group explanatory style.

Finally, whereas self explanatory style is referred to as a personality trait (Abramson et al., 1978), group explanatory style is less a trait and more a result of the interpersonal dynamics. A person characterized by a pessimistic explanatory style (i.e., explains bad events as internal, stable, and global) will not necessarily carry a pessimistic explanatory style when explaining bad and good events occurring to his or her group. While an individual may be settled in his/her own way of explaining the causes of good and bad events, a group of individuals can change the way of explaining the good and bad events happening to the group because of the dynamic and interactive processes happening within the group.

In reviewing the differences between self and group explanatory styles, it should be noted that the differences are more related to the formation of the style of habitual explanations during which the group explanatory style emerges. The similarities and differences related to the general nature of explanatory style as a group attribution in relation to performance as well as some of the potential moderators of this relationship will be further explored in the following sections.

POTENTIAL MODERATORS OF GROUP EXPLANATORY STYLE AND BOTH GROUP PERFORMANCE AND TURNOVER INTENTIONS

In addition to the direct proposed relationship between group explanatory style and group performance and turnover intentions, there may be variables that moderate these relationships. These variables can be conceptualized as moderating the motivational capacity of the explanatory style estimates.

Group Potency/Group- Efficacy

While the efficacy literature has extensively focused on individual self-regulating behaviors (e.g., Bandura, 1982; 1986; 1995) attention was not given to team-and-group performance beliefs until the early 1980s. This trend started with the concept of team-potency, which is defined by Guzzo et al., as " a shared conception of group ability across situations" (1993, p. 87). There is empirical evidence of the relation of potency to performance related criteria (Shea & Guzzo, 1987; Guzzo, Yost, Campbell & Shea, 1993). This research demonstrates that in different settings the group performance beliefs have a significant effect on different group outcomes.

A concept very similar to Guzzo's group potency is collective or group efficacy, which is defined as the collective belief of a group that it can successfully perform a specific task (Lindsley, Brass, & Thomas, 1994; Bandura, 1997). Bandura (1997) describes this concept as not the simple sum of group members' efficacy beliefs but an "emergent" concept (Bandura, 1997, p. 478); and there is empirical evidence that beliefs

related to collective efficacy predict the performance of the group (Hodges, & Carron, 1992; Little & Madigan, 1995). By suggesting that collective efficacy is deeply grounded in self efficacy, Bandura was among the first researchers to see the connection between performance beliefs at the two levels of analysis. In an attempt to discriminate between efficacy at the individual and collective levels, Bandura stated:

> Linking efficacy assessed at the individual level to performance at the group level does not necessarily represent a cross-level relation. An assessment focus at the individual level is steeped in processes operating within the group. Nor does a focus at the group level remove all thought about the individuals who contribute to the collective effort (1997, p. 478).

Gibson, (1995) interprets Bandura's construct as more theoretical than empirical. Drawing upon the Zander and Medow's (1963) "group aspirations" concept, Gibson theoretically and empirically developed and tested the concept of group efficacy. Group efficacy is described as a "group's collective estimate regarding the group's ability to perform a task" (p. 27). This concept was different from those developed up to that time. The main difference rests upon the distinguishing characteristic of group efficacy: it is not based on the individual's specific examination of the particular task, but rather on the group opinion of the group's capability to meet a task objective.

In this regard, a group discussion procedure has been used to explore efficacy in Gibson's (1995) research. However, as explained in Chapter 4, this study will utilize the approach proposed by Guzzo (1993) that aggregates individuals' assessments of group capability (i.e., group potency) to measure group explanatory style as a "group belief." Particularly, this study will look at how group potency will moderate the association between group explanatory style and both group performance and turnover intentions.

Group Cohesion

The concept of cohesiveness started with the research done by Lewin (1935), who referred to "group dynamics." Group cohesion was described as related to the progress and sustenance of the group. However, perhaps the first researcher to most clearly explain cohesion was Festinger. He, along with Schachter and Back (1950), explained that this concept arises from attraction and commitment to the group task and keeps members within the group. Following the same line of reasoning, other researchers have defined cohesiveness as strong links with the group (Granovetter, 1973) and strong connectedness (O'Reilly & Roberts, 1977). Other authors defined cohesiveness as mutual positive forces (Lott & Lott, 1965) and attraction to the group (Pepitone & Reichling, 1955). This research stream brought insights into the relationship between cohesiveness and performance. For example, in the Seashore (1954) study, group cohesion of the factory workers was found to be related to performance. As implied by Guzzo and Shea (1992), there is a dependence on group norms to identify the direction of the relationship.

The interest in examining the cohesion-performance relationship has continued to the present. A recent meta-analysis by Evans and Dion (1991) argued and found evidence that "the rationale for examining the relationship between cohesiveness and performance is that members of cohesive groups will be motivated to advance the group's objectives and to participate in its activities" (p. 175). A recent review by Guzzo and Dickson (1996) argued that little research has been done on the topic of cohesiveness. The discussion stated that the relationship between cohesion and

performance is still unresolved (Guzzo & Dickson, 1996). The major interest of the study reported here is the implications of cohesiveness for explanatory style. While there is substantial literature about the relationship between cohesion and performance in group settings, no testing of team cohesion has been done in explanatory style research. However, research has already tested the existence of group cohesiveness as a determinant of egocentric perceptions in cooperative groups. For example, Schlenker and Miller (1977) argued that according to the egocentric view of attributions, group members will tend to claim personal responsibly for group success and attribute group failure to other members. Further, the results clearly supported the major hypothesis that attribution of responsibility would be most affected by group performance within low cohesive groups. The cohesiveness by performance feedback interactions obtained from ratings of personal, average-member, and best-member responsibility showed that members of low cohesive groups assigned responsibility with regard to past performance while members of high cohesive groups assigned a uniform level of responsibility regardless of how well the group had performed (Schlenker & Miller, 1977).

Therefore, it is proposed that cohesion is an important moderator because high cohesive groups are characterized by high consensus, which is very important for sharing explanations among the group members. As result of this consensus among the group members, the tendency to blame other group members after defeat should decrease.

Social Identity

In addition to group cohesion, another important group characteristic that may moderate the relationship between group explanatory style and performance is the level

of member identification with the group. Individuals define themselves and others not simply in interpersonal terms, but also in terms of their various category memberships (Hewstone, Jaspars, & Lalljee, 1982). People tend to categorize themselves and others by group or organizational affiliations (Tajfel & Turner, 1979). As defined by Tajfel (1982), social identity is " that part of an individual's self-concept that derives from their knowledge of their membership in a social group (or groups) together with the value and emotional significance attached to that membership" (1982, p. 2). Turner (1982) identified the distinction between the cohesiveness that stresses the concept of belongingness based on affection social identity related to the member's cognition regarding criteria leading to attraction to each other, to the whole group, and to the group activities. Further, Tajfel and Turner (1986) conceptualized social identity theory (together with the recent development of social categorization theory) to address processes by which people conceptualize themselves by social categories (Hogg & McGarty, 1990).

According to both theories, when individuals socially categorize themselves as members of a group, this is a basis for self identification since members of the group obtain some aspects of their self concepts from the social groups to which they belong. An important point to be stressed is that after group beliefs are formed and firmly incorporated, there is an urge among group members to achieve and maintain positive self-esteem. As a result, the simple categorizations of people into groups, which is associated with the formation of group beliefs, motivates people to perceive positively the members of their own group and to perceive other groups in negative terms (Turner, 1982). Thus, social identity contains cognitive classifications and evaluative

connotations (Herzlich, 1972). Further, the research suggests that when self and others are identified and categorized as members of distinct social groups, the in-group is seen as more homogeneous and as more extreme than it actually is (Allen & Wilder, 1979; Mackie, 1986). Thus, the in-group is seen to deserve its successes and not its failures, while the opposite can be said for the out-group (Sunar, 1978). Studies at the inter-group level have demonstrated that some attributions are made in relation to their respective social groups or category memberships (Hewstone et al., 1982).

The purpose of this study is to look at the possible moderating impact of social identity on the relationship between group-explanatory style and both performance and turnover intentions. One consequence of social identity is the tendency of group members to consent with the actions of the group, thereby increasing the basis for the favorable group explanatory style.

CHAPTER 3

STUDY HYPOTHESES

This study will test the role of group explanatory style on group productivity and turnover intention and the moderating effect of group potency, group cohesion, and social identity on the above relationship. It attempts to test the existence of group explanatory style in a manufacturing setting.

As the literature review indicated, self-explanatory style or attributional style as a cognitive personality variable has been found to correlate with subsequent motivation and performance (Peterson & Barret, 1987). For example, in the literature on attributions and achievement, causal explanations for success or failure are related to motivation to perform (Eccles, 1983). Further, the individual's explanatory style predisposes him/her to the use of particular causal explanations (Peterson & Seligman, 1984). According to the reformulated learned helplessness theory, self explanatory style may affect outcomes beyond the ability of the individual. As explained by Seligman (1975), uncontrollable failure will be followed by lowered response initiation. Some individuals are more vulnerable, and some are more resistant to those deficits. Individuals with a pessimistic explanatory style will blame themselves for their failures, will predict that the failure will last for a long period of time, and will occur in many situations. As result, they will suffer more deficits related to self-esteem and response initiations over a long period of time. In the job this can take the form of lowered attempts to perform well, less persistence, and more intentions to quit than individuals with a more optimistic explanatory style.

The position taken here is that the theory and research on self explanatory style can be extrapolated to group explanatory style, and that group explanatory style is based on the interactions and dynamics in which groups are involved. According to Weick and Roberts (1993), members of groups construct their actions, understand the connectedness of their actions with other members of the group, and interrelate their actions in order to combine their patterns of behaviors, thus creating a "collective mental process" (p. 360). As a result, a "social process" is constructed and is related to ongoing interactions during which group members make sense of work activities. As described by Weick and Roberts (1993), "the ongoing interaction process together with collective sense making is embodied in individuals' lives and continues despite the replacement of the people" (p. 366). Part of this collective sense making is the explanation of successful and bad events happening to the group. Acting as a social force, members of a group that is characterized by a pessimistic explanatory style will tend to blame their group for the bad events and not take credit for successful events happening to their group. Further, such a group will tend to expect that failures will last for a long period of time and will span a wide range of situations. Therefore, the first hypothesis for this proposed study is:

Hypothesis 1: Groups who use a pessimistic explanatory style for bad work events will be associated with lower group performance than groups which are characterized by an optimistic explanatory style.

After members of the group create ideas of their own through mental processes, they share these ideas with other members of the group (Bar-Tal, 1990). The degree of

inclusion in this group communication and exchange of ideas has been found to be related to one's propensity to leave (Roberts & O'Reilly, 1979). Thus, explanatory style discussions may lead group members to share thoughts of quitting and their intent to search for alternative jobs.

By the same token, the attraction-selection-attrition (ASA) cycle presented by Schneider (1987) suggests that different kinds of environments attract, select, and retain different kinds of people. The same can be said about groups. Integration and assimilation presume value congruence and are likely to enhance membership stability (Chatman, 1991). Individuals seek to stay with groups that attract them and choose to leave groups in which they do not fit. Mowday (1981) suggests that when one employee quits to take a job elsewhere, others may re-evaluate their jobs; especially when the person leaving is a close friend (Krackhardt & Porter, 1985). Therefore, members of pessimistic groups will be more vulnerable to helplessness deficits characterized by cognitions of withdrawal expressed as thoughts of quitting and intentions to search for alternative employment. Therefore, the second hypothesis is:

Hypothesis 2: Groups that use pessimistic explanatory style for bad work events will be associated with higher turnover intentions than groups which are characterized by an optimistic explanatory style.

As mentioned in Chapter 2, group efficacy and self efficacy together are critical factors in defining the direction of subsequent performance. Bandura (1986) explained that failure to perform might well reduce one's self efficacy, which might be associated

with lowered motivation and performance. We draw an analogy to Guzzo's (1993) construct of group potency and Gibson's (1995) construct of group efficacy. Group performance failure reduces group-potency and in turn can be associated with lowered motivation and group performance.

Although Bandura (1986) states self efficacy is not a global personality trait and is not stable across situations (i.e., a task specific belief which can vary depending on the situation), Silver, Mitchell, and Gist (1995) argue that self-efficacy is related to attributions and performance in all tasks. Silver et al., (1995) found that self efficacy moderated the performance attribution relationship, especially in the case of unsuccessful performance. It is suggested that high and low efficacy people are characterized by different interpretational style regarding the causes of their performance. By extrapolation, group style explanations of good and bad events can be affected by the presence of high or low group efficacy.

According to social cognitive theory, failure to perform a task reduces levels of self efficacy, which are in turn associated with a decrease in the level of motivation and performance of a task. The role of efficacy for future motivation and performance in the presence of optimistic/pessimistic explanatory style is related to tendencies to persist or give up (Gist & Mitchell, 1992; Silver, et al., 1995). Failures that are continuously explained as internal, stable and global should lead to reductions in self efficacy (Bandura, 1986). In the case of the existence of pessimistic group explanatory style (i.e., the bad events in the group context are perceived to be caused internally, stably, and globally) and low group-potency, the tendencies to give up associated with the deficits of learned helplessness theory will be heightened.

By the same token, according to attribution theory, successful performances are perceived as resulting from internal and stable causes rather than external or unstable circumstances (Weiner, 1985). In the case of high self efficacy, more self-enhancing patterns will occur when individuals explain these successful performances. The belief in work group ability to perform successfully encourages the group members to acknowledge the group as a cause of successful performance. In this regard, groups characterized by an optimistic explanatory style (i.e., bad events in group contexts are caused externally, unstably, and specifically) with the existence of a high group potency level, will persist in carrying out tasks even when temporary failures occur. Accordingly, the following hypothesis is proposed:

Hypothesis 3a: The relationship of group explanatory style to group performance will be moderated by group potency.

According to Gist and Mitchell (1992), self efficacy is related not only to future motivation and performance, but also to causal attributions related to the tendencies to persist or give up. In accordance with the tendency to give up in the case of uncontrollable events and the causal explanation that nothing matters, the learned helplessness phenomena might come into play. In the case of the group level of analysis, the giving up tendency characterizes the whole group. If these tendencies characterize the whole group then cognition of quitting and searching for other alternatives will be prevalent among the group members.

Pessimistic groups (i.e., failures are explained as internal, stable, and global) that

don't believe in their ability will be more encouraged to give up the membership of the group and start to search for alternative jobs versus optimistic groups (i.e., failures are explained as external, unstable, and specific), who will persist in the face of obstacles because they have a shared conception of group ability to carry out the task. Thus, when examining the pessimistic group explanatory-turnover intentions relationship, it is expected that these groups characterized by low levels of group potency will experience more tendencies to give up and search for alternative jobs from their members compared with those teams who feature a high degree of group potency. Accordingly, the following hypothesis is proposed:

Hypothesis 3b: The relationship of group explanatory style to turnover intentions will be moderated by group potency.

Another moderating factor to be considered is group cohesion. This concept has progressed from its original Lewinian background and is now considered the foundation which binds together group members (Hogg, 1987). As discussed earlier, one of the factors determining the pessimistic or optimistic explanations of group members after group success or failure is the degree to which the other group members are viewed as an extension of the self (i.e., a person feels that self is reflected by the group). For example, Schlenker and Miller (1977) argued that group cohesion is one of the factors that defines whether the group members will be denied credit for success or assigned blame for failure. Further, it is suggested that the tendency to blame members of the group for defeat should be increased and the tendency to credit the group for successes should be

decreased in the case of low group cohesion (Schlenker & Miller, 1977). On the other hand, Karakowsky and Siegel (1995) suggested that members of groups characterized by non-cohesiveness will have little incentive to consider factors other than the maximization of self-esteem when attributing causes of success and failure. In this light, Dion (1973) suggested that cohesiveness influenced individual's actions and attitudes toward his/her group members. Particularly, the explanations created to assign responsibility would be most affected by the existence of forces which keep the group members together. As a result, group members who are not committed to remain in the group and are characterized by the low attractiveness to the other members will explain events which happened to the group differently than individuals who are attracted. Considering this, the hypothesis that will be tested in this study is:

Hypothesis 4a: The relationship of group explanatory style to group performance will be moderated by group cohesion

Sheridan (1985) argued a critical factor in the turnover process is the attraction of the individual members to others in the group. Other research has concluded that high cohesiveness is related with lower attrition from the group (Lot & Lot, 1965; Stogdill, 1972). Therefore, when examining the pessimistic group explanatory style relationship to turnover intentions, it is expected that those groups with low attraction among group members will experience more intentions to quit among their group members. The same can be true for optimistic groups, in which higher group cohesion will relate to lower intention to quit and fewer inquiries regarding alternative jobs. Thus, the following

hypothesis will be tested in this study:

Hypothesis 4b: The relationship of group explanatory style to turnover intention will be moderated by group cohesion.

It follows that another important group process related to group explanatory style is social identity. As mentioned in the last chapter, individuals not only identify themselves in interpersonal terms, but also in terms of their social groups or categories (Duncan, 1976; Hewstone, Jaspair, & Lalljee, 1982). Considering the Hewstone et al., (1982) study, group members can influence social identity through the attributions they make for in-group and out-group behaviors. Group internal attributions for positive events can sustain and increase self-esteem by enhancing social identity (Zaccarro, Peterson, & Walker, 1987). By the same taken, negative events can be attributed to factors outside the group in order to preserve the image of social identity (Zaccarro et al., 1987). According to social identity theory, individuals in the group will perceive the group to which they belong in a positive way and other groups in a negative way. Thus, groups characterized by a higher degree of identification within the group are predicted to have higher levels of optimistic explanatory style (i.e., bad events are caused externally, unstably, and specifically).

On the other hand, the opposite is true for the groups that are comprised of members who do not identify strongly with the group. Groups characterized by a lower degree of identification are predicted to have higher levels of pessimistic explanatory style (i.e., bad events are caused internally, stably, and globally). Therefore, the

following hypothesis is proposed:

Hypothesis 5a: The relationship of group explanatory style to group productivity will be moderated by social identity.

As Jackson, Alvarez, and Stone (1993) explain self categorization at the social level of self-concept intensifies perceived intragroup similarities and intergroup differences. Thus, one's own goals are seen as interchangeable with those of other in-group members. This is important when considering the relationship between group explanatory style and turnover intentions among the group members. If pessimistic groups are related with higher turnover intentions, then this relationship will be heightened in the case of non-identification with the group. The same logic can be used in the case of optimistic groups, which would be related with lower turnover intentions among group members. In this case, the strong identification with the in-group will help individuals of the group to remain with the group even when facing failures. Thus the following hypothesis is proposed:

Hypothesis 5b: The relationship of group explanatory style to turnover intentions will be moderated by social identity.

CHAPTER 4

METHODOLOGY OF THE STUDY

A field study was conducted to examine the existence of the group explanatory style construct, the relationship between group explanatory style and both performance and turnover intentions, and the moderating effect of group potency, cohesion, and social-identity on the above relationships. This study addressed concerns previously expressed by researchers who have investigated group beliefs (Hackman, 1990; Guzzo et al., 1993), and in particular, the recognized need for field research in real world contexts. To meet this need, this study explored group habitual explanations within a large manufacturing organization. The study examined five major hypotheses: the relationship between group explanatory style and both group performance (H1) and individual member turnover intention (H2). The moderating effect of group potency on the relationship between group-explanatory style and both performance (H3a) and turnover intention (H3b); the moderating effect of group cohesion on the group explanatory style outcome relationship (H4a & H4b); and finally the moderating effect of social identity (H5a & H5b).

Sample

This study utilized existing work groups at a large manufacturing operation located in the Midwest. One major division containing three-member groups was the sample focus. The groups in this division were responsible for mail inserting for a large financial institution customers. The three member groups fit the definition of a "group"

as previously discussed.

While 180 employees responded, data were retained only for employees where a team's complete membership had responded. Thus 150 responses representing 50 wholly intact teams were used in the actual analyses. The average age of the subjects was 2.78 (i.e., 26-30 interval); average organizational tenure 23.23 months (s.d. = 20.7 months); and 50.6% of the subjects surveyed were female.

Procedure

Respondents were invited to participate in the study as part of an ongoing project within the context of increasing performance and reducing turnover. All participants received a survey that was distributed by the researchers. Completion of the survey required approximately 30 minutes. Respondents were paid for the time spent to complete the survey. Participants were given the choice of completing the survey at the start or end of their shift. All participants were provided with explanations of the general purpose and nature of the research study prior to responding. Instructions for this particular survey stated that the workplace survey was part of a study to investigate "how employees explain workplace events." Confidentiality of individual responses was emphasized in the instructions, and it was stated that only the summaries of the research would be provided to management. Completed surveys were returned directly to the researcher.

Measures

The following section will discuss the measures used for the independent variable, the dependent variables, and the moderating factors.

Group Explanatory Style

Since the distinguishing feature of organizational phenomena is that processes at several levels of analysis are in some way linked, a need exists not only for theory development of organizational phenomena at different levels of analysis but also the need for development of measures of such constructs at other levels (House, Rousseau, & Thomas-Hunt, 1995). Single-level theories that fail to include variables from other levels of analysis will be biased in estimations (Sight, 1991).

Defining group explanatory style as an attribute of the group raises certain requirements that are not applicable when defining individual attributes. Bar-Tal (1990) described such requirements. First, the construct should reflect the group as a whole, rather than individual members. Second, an agreement among members of the group should be demonstrated relative to the construct. Third, the construct should discriminate among groups (Bar-Tal, 1990). One of the approaches that can be used to capture the group-explanatory style that satisfies Bar-Tal's (1990) requirements is the utilization of a measure that aggregates individual assessments of a group's habitual explanation of good and bad events.

Given that group explanatory style stems from the group beliefs through the process of collective sense-making, the position taken in this study is that aggregate measures are also relevant to group explanatory style. For example, using an aggregated

approach, Earley (1993) asked subjects to rate their expectations for five levels of group performance using a 100-point scale. He then calculated the mean expectation across group members and used this mean to represent the group's expectation.

Group explanatory style was measured with a twelve-item measure of explanatory style based on the Organizational Attribution Scale Questionnaire (OASQ) developed by Kent and Martinko (1995), the Attribution Style Questionnaire (ASQ) adapted by Peterson et al., (1982), and the Occupational Attributional Style Questionnaire developed by Furnham, Sadka and Brewin (1992). Integrating these standardized questionnaires satisfied both the need for measures designed to specifically test the study's hypotheses and the need to enrich the micro-and-macro level theories with the inclusion of measures from the other levels of analysis (see House et al., 1995).

The measure was presented to the respondents with the following directions:

> Read each of the situations and imagine it happened to you and to your group. Even if it is unlikely that the situation will actually occur, still imagine it is happening and respond to the questions. Based on what you know about yourself, your group, and the organization in which you are employed, write down what you think is the one major cause of the event in the space provided (e.g., bad luck). Respond to each of the items that follows the event by circling the number on the scale which best describes the cause you identified.

Following the instructions were 12 hypothetical events comprised of good and bad outcomes. A sample negative event from the scale measuring group explanatory style is "Members of your group have great difficulty in getting along with each other." A sample of a positive event was "All the feedback your group has received from your supervisor lately concerning the group's performance has been positive." Following each event were parallel questions. First, the members of the team were asked to vividly imagine it happening to them and to "write down the one major cause of the event." The

cause was recorded in the space provided. Second, they were asked to answer questions along three dimensions corresponding to the internality, stability, and globality dimensions using a 7-point Likert scale with each dimension being rated separately (1 = completely external to the group/completely unstable/completely specific; 7 = completely internal to the group/completely stable/completely global). Group explanatory style measured by the above questionnaire had an internal consistency of .75.

In this study three composite scores derived from the group-explanatory style questionnaire were used. Following the method of Seligman and Schulman (1986), Reivich (1995); and Corr and Gray, (1996), the composite negative explanatory style was calculated (CoNeg), which is the composite score for the seven negative events, summing across internal, stable, and global dimensions and dividing by the number of events. Next the composite positive attributional style (CoPos), the score for the five positive events was computed. Finally, a total score which was equal to the composite positive minus composite negative (CPCN) was calculated. Past research (Peterson & Seligman, 1984; Seligman & Schulman, 1986; Reivich, 1995; Corr & Gray, 1996) indicate that CPCN is the most valid empirical predictor of explanatory style at the individual level of analysis. Thus, we used CPCN to construct the group level measure of explanatory style.

In order to test for the validity of a group level measure, the composite score was calculated for each group to represent the group belief regarding success or failure. The composite score serves to reinforce reliability by reducing the number of items used to assess the explanatory style and eliminates the intercorrelations between the dimensions (Reivich, 1995). Then, within and between analysis (WABA) (results reported in the next chapter) was utilized to verify that the third and fourth requirements stated by Bar-

Tal were met (the construct must differentiate well between groups and must reflect processes that occur within the group).

Moderator Variable Measures

Group potency was measured by the eight-item scale developed by Guzzo et al., (1993). Other researchers have used different measures for group potency. For example, Gibson (1995) employed a method called "group discussion procedure," where a group is presented with a rating scale to use in forming a single consensus response to a question about its sense of efficacy with regard to a given task. However, this method prohibits the calculation of statistical indicators of member agreement. Additionally, one of the limitations acknowledged by Bandura (1997) is that group interaction during the process of arriving at an efficacy estimate may change a group's efficacy to the point that it is unrealistic. For the above mentioned reasons the Guzzo et al., (1993) approach was chosen.

The scale contains such an item as, "My group has confidence in itself;" "My group expects to have power around here;" and "My group believes it can become unusually good at producing high-quality work." Group members individually completed the eight items using a ten point scale (1 = To no extent, 3 = To a limited extent, 5 = To some extent, 7 = To a considerable extent, and 10 = To a great extent). Guzzo et al., (1993) found that in 19 product teams, group potency measured by the above scale had internal consistency of .81, strong intragroup agreement (average r = .95), and demonstrated significant intergroup differences [(F 18.89) = 1.60, p<.08, w sqrd= .09]. In the sample studied here, the group potency measure had an Cronbach

alpha of .91.

Group cohesion was measured by three items adapted from Schlenker & Miller (1977). The three items were: a) how much the subjects like the other group members, b) how much they enjoy membership in the group, and c) how satisfied they were with their group membership (Schlenker & Miller, 1977). Respondents used a 10-point Likert scale to express agreement with each statement (1=To no extent; 3=To a limited extent; 5=To some extent; 7=To a considerable extent, and 10=To a great extent). The group cohesion measure had good internal consistency (α = .85).

Social identity was measured using the modified version of the six-item organizational identification scale adapted by Mael and Ashforth (1992). Some examples of the items in scale are: "If someone were to criticize this group, it would feel like a personal insult;" "When I talk about this group, I say 'we' rather than 'they';" and "If someone were to praise this group, it would feel like a personal compliment." Participants were asked to indicate their agreement with each statement on a five-point scale (5=To a very great extent *to* 1=To no extent). Mael and Ashforth (1992) reported reliability of .79. Reliability in this study was .70.

Outcome Variables

Group performance: "Hard" data for each group related to performance was available from the organization. The measure of performance was the number of the envelopes zip-sorted in a month from the group. Counters attached to the employee machines tabulated completed envelopes. The list of the members of the group together with group monthly performance was taken from each respective manager at the end of

the month following the completion of the survey.

Turnover intentions: A three-item questionnaire was developed to assess the turnover intentions of the participants: "I often think about quitting my job;" "I can easily find a job elsewhere;" and "I can make more money in a similar position in another organization." Respondents assessed each item on a seven-point Likert scale from very unlikely (1) to very likely (7). The scale had an internal consistency of .81. Responses from each individual employee were entered for every group, with the reason being that through the process of interaction the group members share their intentions to look for alternative jobs. Further, there is research evidence that when close friends leave the group this has an impact on the intention to quit of the remaining group (Krackhardt & Porter, 1985).

Level of Analysis and Aggregation Procedures

Individual scores for some variables (group explanatory style, group performance, group potency, group cohesion and social identity) will be aggregated to the group level of analysis in order to obtain the appropriate construct focus. For legitimacy, such procedures involve demonstrating that there are greater between-group differences than within-group differences for the variables of concern. In order to justify the existence of a group level of analysis, it is important to demonstrate homogeneity within the groups (Schneider & Bowen, 1985) and further that two people within the same group are more similar than two people who are members of different groups (Florin, Giamartino, Kenny, & Wandersman, 1990). In order to verify the existence of a group level effects WABA was conducted. Building on the work of Pedhazur (1982) WABA combines

correlation, analysis of variance (ANOVA), and analysis of covariance (ANCOVA) procedures (e.g., Hays 1973; Fin, 1974; George, 1990; Yammarino, & Markham, 1992). In WABA analysis, each variable in a study is first assessed to determine whether the variable varies primarily between groups (i.e., within-group homogeneity), within groups (i.e., within-group heterogeneity) or both between and within groups (i.e., individual differences rather than within-group homogeneity) (Yammarino, & Markham, 1992). This technique involves two types of correlation coefficients, a within -group correlation and a between-group correlation which is called a within and a between eta. The etas are tested relative to one another with F tests of statistical significance and an E test of practical significance (Dansereau, Alutto, & Yammarino, 1984). Thus, WABA is a useful and rigorous tool for testing hypotheses that include group levels of analysis and helps researchers draw accurate references regarding group phenomena. However, George (1990) points out one should not expect to find extremely large differences across groups when all members of a group belong to the same organization and are performing the same task.

CHAPTER 5

RESULTS

This chapter presents the statistical results of the analyses done on the group data. The results of various descriptive statistics, the WABA technique, and the hierarchical regressions are discussed in the following sections.

Descriptive Statistics

The means, standard deviations, and intercorrelation among the variables used in this analysis are shown in Table 1. The correlation between the independent variable (group explanatory style) and one of the dependent variables (group performance) was not significant ($r = .09$; p = n.s.). Whereas, the correlation between the independent variable and the other dependent variable (turnover intentions) was significant ($r = -.67$; $p<.01$).

The nature of these correlations serves to establish an expectation for the significance of the hypotheses which will be tested later with the regression procedure. For example, we would expect support for Hypothesis 2 while we would not expect to find any support for Hypothesis 1.

Test of Group-Level Effect (WABA)

Since the study sought to test hypotheses at a group level of analysis, WABA was performed to verify the data could be aggregated and considered as group measures. This technique integrates various correlational, analysis of variance (ANOVA), and analysis of

covariance (ANCOVA) procedures in order to estimate both variation and covariation in variables within and between levels of analysis (i.e., group and individual). Within and between η's are used to assess sources of variation in measures. The η is tested with an E test of practical significance. The cutoff value to conclude group level effects is larger than .77 for the 15° angle test, comparable to $\alpha = .01$ (Dansereau, Alutto, & Yammarino, 1984).

The results of the WABA are presented in Table 2. As shown, the within-group etas are larger than the between-group etas for the group level variables of interest. Furthermore, the E tests of significance show that the composite scores for group explanatory style, group performance, group cohesion, social identity, and group potency surpass the critical value (.77) for the 15° test. These results suggest that the variation between groups is significantly greater than the variations within groups for the variables of interest, and thus one can conclude that there is an effect of group membership on the measure. Given this, the remaining analyses and testing of hypotheses will be performed using group-level data.

Hypothesis Testing

The hypotheses were tested by employing modearted regression. First, the main effects will be explored, and then the moderated effects will be discussed.

Direct Effects

Hypothesis 1 stated group explanatory style would be related to performance. Hypothesis 1 was not supported. However, given the low variability of performance this

may be due more to range restriction of the data than to theoretical validity.

Hypothesis 2 predicted group explanatory style would be related to group member turnover intentions. Since no demographic measures were significantly correlated to intention to quit, correlation analysis was sufficient to test the relation between group explanatory style and member turnover intentions. Hypothesis 2 was supported ($r = -.67$; $p<.01$). Groups with a more pessimistic explanatory style had higher turnover intentions than groups with an optimistic explanatory style.

Test of the Moderator Effects

Since group explanatory style was not related to performance, there was no need to test Hypothesis 3a, Hypothesis 4a, and Hypothesis 5a. The following discussion will present the analysis testing for moderating effects on the group explanatory style turnover intention relationship.

Table 3 presents the results of the hierarchical regression analysis of the moderating effect of group potency, group cohesion and social identity on the relationship between group explanatory style and group member turnover intentions.

Moderated regression is used to study the relative importance of the effects of independent and moderator variables on a dependent variable (Pedhazur, 1982). Following Cohen and Cohen (1975), research used this term for what generally was labeled "incremental partitioning of variance" (Pedhazur, 1982, p. 218). In this approach, the portion of variance accounted for by all the independent and moderator variables (i.e., R^2) is partitioned incrementally by noting the increment in the proportion of variance accounted for by each independent and moderator variable at the point at

which is entered into regression (Pedhazur, 1982). Since no demographic variables were related to turnover intentions, the main effects (i.e., group explanatory style) together with the moderators were entered first. Further, the interaction terms (group explanatory style x group potency; group explanatory style x group cohesion; group explanatory style x social identity) were entered in order to assess whether the interaction terms will account for any additional variance in the dependent variable. Then, the significance of the change in R-squared attributable to the interaction term was assessed.

As previously shown, group explanatory style was significantly related to turnover intentions ($\beta = -.75$; $p<.001$), indicating that groups with a more pessimistic explanatory style had members who expressed greater intentions to leave. This provides further support for Hypothesis 2. Inspection of the main effects (Step 1) showed that group cohesion was the only variable except group explanatory style to have a significant impact on turnover intentions ($\beta = -.35$; $p<.01$). Together, explanatory style and cohesion explained 72% of the variance in the turnover intention. However, none of the interaction terms were significant. Thus, support wasn't found for Hypothesis 3b, Hypothesis 4b, and Hypothesis 5b.

CHAPTER 6

DISCUSSION

This final chapter provides a summary of the results of this investigation, discusses the benefits and limitations associated with it, and makes recommendations for future research directions.

Summary of the Results

A composite measure developed for group explanatory style was created from the group aggregated data. The WABA analysis (Yamarino & Markham 1992) indicated there is a group-level effect for group explanatory style, group potency, group cohesion, and social identity, thus allowing for analysis of group-level hypotheses.

The analysis of the hypothesized impact of group explanatory style on group performance did not result in significant findings. However, the test of the hypothesized impact of group explanatory style upon group member turnover intentions did show significant findings. Further analysis did not support the hypotheses for interaction effects, but did show that group cohesion was significantly related to turnover intentions.

Overall, the findings of this research study suggest that:

a) Consistent with expectations, group explanatory style did correlate significantly with turnover intention - in other words, as the degree of pessimism within the team increased, the level of turnover intentions increased.

b) Contrary to expectations, explanatory style did not significantly affect performance. Alternate explanations for this lack of results will be discussed.

c) Contrary to expectations, group cohesion did not moderate the relationship between group explanatory style and intentions to quit, but was significantly related to turnover intentions - in other words, group explanatory style together with cohesion explains the majority of variance in turnover intentions. Since the interaction term between cohesion and group explanatory style was not significant, i.e., group cohesion did not offset explanatory style, then explanatory style accounts for the main effect.

d) Contrary to expectations, group potency and social identity did not demonstrate main or moderator effects. Therefore, the collective belief in the abilities of the group members and the identification of the group members as part of the social category did not play any significant role on the relationship between group explanatory style and group performance.

Contributions to the Literature

Group explanatory style and intention to quit. Consistent with expectations, group explanatory style had a significant relationship with intentions to quit. This finding extends previous research in determining what factors contribute to employee withdrawal behavior. Previous research has examined the increasing effect on turnover caused by communication networks (Krackhard & Porter, 1985, 1986), the centrality of network position (Eisenberg, Monge, & Miller, 1983; O'Reilly & Caldwell, 1979), and social influence (Freeman, 1979; Rogers & Kincaid, 1981; Kincaid, 1993). For example, given that a network consists of a set of individuals and the links among them, friendship, advice seeking, informational communication, and material transfer has been shown to influence their turnover behavior (Krackhardt & Stern, 1988). This study showed how

formal linkages led to a group perspective on explanatory style and influenced turnover. Future research might reveal how informal linkages may create a consensus explanatory style that has a more subtle effect throughout the organization.

Findings from this study support previous research that a group member's behavioral decision to stay at or to leave a particular job is a function of the group member's relationships or pattern of communication with other group members (Feeley & Barnet, 1997). Krackhardt and Porter (1985) argued that the closer the friends who leave the organization are to the person who stays in the organization, the stronger will be the effect on turnover. Thus, through processes of networking, if members of pessimistic groups leave, the other group members who were friends may blame the group or the organization, and their tendency to leave will be higher. In fact, group explanatory style may have been a moderator in these earlier studies. Thus, pessimistic norms developed in previous situations will transfer to new, similar situations within the group. If the group has a pessimistic view, the friends leaving may heighten pessimism, and in turn everything will be explained in a pessimistic light and actual turnover may follow.

Additionally, the findings here for optimistic groups are consistent with the Mowday (1981) argument that co-workers of those who quit and had a positive outlook were less likely to believe that their co-workers quit because of the job (i.e., the group). Mowday (1981) referred to such attributions as the "pull" forces of turnover. Thus, through processes of communication (conceptualized as group consensus), members of optimistic groups will not blame their group for the departure of their co-workers, but rather external factors not dependent on the job or the work of the group (e.g., they left because they wanted to go back to school). As a result, group members' personal

tendencies to leave will be lower.

Group explanatory style and group performance: It was hypothesized that optimistic groups would have higher levels of performance than pessimistic groups. However, the results were not significant. It could be that the lack of significant results was a function of the performance data or the performance measure. To ensure an immediate and legitimate test, performance was measured for one month. However, there was very little variation in performance (3%) across the groups. Thus, it may be range restriction that confounded our findings of no explanatory style-performance relation. Future research might collect more frequent data over a longer time period to better identify high-and low-performing groups.

Support for this alternative explanation comes from other research on explanatory style and performance (Rettew & Reivich, 1995). At the individual level of analysis, research has established that positive attributional style is positively related with sales performance (Seligman & Peterson, 1986; Hoeksema, 1986; Furnham et al., 1992; Corr & Gray, 1996). However, further research is needed to establish the effect of group explanatory style on performance.

Moderating Variables: Group Potency, Group Cohesion, and Social Identity: Contrary to expectations, none of the proposed factors significantly moderated the relationship between group explanatory style and performance or turnover intention. Although there was not a moderating effect of group cohesion, there was a main effect of group cohesion on both dependent variables: group performance and turnover intention. These findings extend the related literature on how forces that keep the group members together affect a set of important outcomes. Although the early studies found mixed

results for the relationship between cohesiveness and performance (e.g., Lot & Lot, 1965), this study is in line with several more recent studies that have established a more positive relationship (e.g., Hoogstraten & Vorst, 1978; Tziner & Vardi, 1983). In particular, our study is in tune with two recent meta-analyses that found a "stable and positive" (Evans & Dion, 1991) and "small but positive" (Mullen & Cooper, 1994) relationship between cohesiveness and performance. By the same token, this study extends the existing literature about the potential relationship between cohesion and turnover (e.g., Piper et al., 1983; Cutton & Tuttle, 1986; O'Reilly et al. 1989). It is important to mention that even with the diverse ethnic mixture of these groups cohesion still contributed to turnover intentions. Jackson et al., (1991), McCain, O'Reilly, and Pfeffer (1983), and Tsui, Egan, and O'Reilly (1992) found higher turnover rates in demographically diverse work groups: and O'Reilly, Caldwell, and Barnet (1989) discovered that disagreement within heterogeneous groups accelerates the departure of its members. Thus, our study further supports the literature on the cohesion-turnover relationship.

In light of previous findings, it seems that group members are more concerned with how members feel about each other (i.e., group cohesion) than their personal or perceptual similarities (group identity) when considering their desire to remain in the group. Turner et al., (1987) explained that group cohesiveness is an emergent property of group membership and an outcome of in-group identification. Our findings seemed to contrast with the idea that social identity (i.e., individuals of the group perceive themselves to be members of the same social category) should exist before cohesion. One of the reasons why social identity may not have been significant would be that

sometimes social identity happens unconsciously in ways that members of the group do not realize. Another reason might lie in the fact that people in the workplace can be attracted to each other because of the work reasons, although they are not similar demographically. Thus, the important issue here is how people get along with each other and work together toward a common goal (i.e., group cohesion) rather than how they identify with the group. Indeed, this is the goal of contemporary diversity programs today. As far as group potency is concerned, our sample was composed of groups who performed a routine, broadly-defined task. Perhaps when a task is broadly defined, the capabilities required for successful completion are less clear than when the task is narrowly defined (Gibson, Randel, & Early, 1997). In this sense, it was harder for the group members to assess the groups' capabilities, and this could be an explanation of our non-significant findings.

Strengths and Limitations

As with all research domains, this study had its strengths and limitations. First, this was the first known attempt to specifically examine how explanatory style affects group performance and turnover intentions. Additionally, this was the first attempt to examine the potential existence of this group-level variable. This issue is especially important given the increase in the use of groups and teams in today's organizations, and given how little we understand group versus individual motivation (Sundrom, DeMeuse, & Futrell, 1990). Second, being a field study in a manufacturing organization adds to the research generalizability on explanatory style beyond the traditional focus on the insurance and sales domains (Cook & Cambell, 1979). Third, this research studied

groups in their natural settings, thus responding to the need for research studies on groups in real organizations (Mudrack, 1989; Langfred, 1998). Fourth, this study controlled for task complexity and team size, examining teams with a fixed size (three members) doing the same task. Finally, this study used hard performance data. This increases the validity of the study over typically-used surveys or questionnaires, which are prone to threats of common method variance.

One limitation of this study was the sample size. Survey responses for the entire membership were only obtained from 50 teams. While this number minimally meets the threshold for sufficient power (.8 at $\alpha = .05$, Cohen & Cohen 1983; Cohen, 1988), small sample sizes tend to be problematic when investigating complex phenomena (e.g., interaction effects). A second limitation of this study, as mentioned earlier, is the lack of variance in the performance across groups. A third limitations of this study is the low task interdependence among the members of the team. Possibly as result of this situation, group members were not aware and willing to discuss their true feelings in the survey, thereby reporting a lower level of group potency and social identity in their group than actually existed. A final concern might be that common method may also have inflated the correlations reported in the study, particularly between turnover intentions and the endogenous variables. However, given the lack of significant relationship among the variables, this does not appear a substantial threat.

Future Research

This study supports the notion that group explanatory style is a useful construct at the group level. Future research should focus on replicating it in different domains other

than manufacturing. Because this is the first research study specifically examining the impact of group explanatory style on both group performance and turnover intentions, further research is needed to determine the generalizability of this research's findings. Groups of salespersons, medical teams, audit groups, and other similar groups which depend on each other for the final outcome are other appropriate domains.

Second, it may be useful to examine how the theoretical model presented here might be further impacted by factors such as heterogeneity. As proposed here, group explanatory style is a function of interaction and consensus. Communication is hypothesized to be easier between individuals with shared social experiences (Zenger & Lawrence, 1989). Often the presence of demographically or socially "different" members of an otherwise homogeneous group may make the other members of the group uncomfortable. In turn, the group may exclude the "different" member from full participation and input into the work processes (Tsui & O'Reilly, 1991). Such issues of heterogeneity might be considered during the process of establishing optimistic or pessimistic norms in groups. By the same token, similarity across group members may enhance social integration (i.e., the degree to which an individual is psychologically linked to others in the group) and in turn lead to a lower likelihood of leaving (O'Reilly, Caldwell, & Barnett, 1989). Social integration, therefore, may impede or foster the process of establishing optimism or pessimism within the members of the group. The groups in our sample were heterogeneous (i.e., varied in regard to race, nationality, and gender), yet the results show the existence of within-group explanatory style consensus. Still, comparisons of explanatory style consensus across varying levels of membership heterogeneity are warranted.

Third, future research should look at the impact of varying task interdependence. Although our study had low task interdependence, results were affected by cohesion (i.e., performance and turnover intention) and group explanatory style (i.e., turnover intention). In addition, one would expect stronger effects in settings with higher task interdependence. Thus, there is a significant need for collaboration and coordination in order to better capture group dynamics and the processes of networking and communication among the group members.

Fourth, including longitudinal studies in further research may result in a more comprehensive understanding of how group explanatory style is developed and sustained in groups to determine group performance and intention to quit. It may be that by assessing group explanatory style in a baseline period, and then again at actual turnover, would exhibit a more significant effect than looking only at turnover intentions. Even so, turnover and turnover intentions have been shown to be highly correlated (Steers and Mowday, 1981; Hom & Griffeth, 1991; Lee & Mitchell, 1994). The same rationale can be used for tracking the performance of the group for a long period of time during the process of formation and stabilization of the optimistic and pessimistic norms within the group. Tracking network communications (Granovetter, 1973), especially the informal ones, among newly formed groups will give a better picture of the dynamics among the group members during the formation of pessimistic or optimistic group explanatory style. However, it is important to note that many findings concerning group formation may not apply to "newly born" groups (Jackson, Stone, & Alvarez, 1992). The distinguishing characteristic of "newly born" groups is that prior to the formation of the current work groups, none of the group's members have any formal experience working with one

another. Thus, for the above-mentioned reasons it would be interesting to look at the antecedents and the formation process of optimistic and pessimistic group norms in newly-created groups versus groups where members rotated across projects (e.g., professional services firms).

Fifth, group dynamics can foster or impede creativity when a problem requires a complex solution (King, 1995). In this case, a project manager is often necessary to serve as a leader who coordinates and facilitates multiple groups working on a single project (Heard, 1995). The question of the formation process of pessimistic or optimistic explanatory style in these creative groups, and the role that a leader plays to facilitate the pessimistic or optimistic norm creation, is as yet an unanswered question from the research.

Finally, it may also be worthwhile to examine the theoretical model presented in this investigation in a variety of international settings. One way that explanatory style is formed is through social influence. Information that members of the group receive about norms, future expectations, and past performance can facilitate the process of group explanatory style formation. If group explanatory style is in part socially-constructed, then such a construct may differ as a function of national culture. Existing research in attribution theory has suggested the existence of a cultural influence on self-serving bias (Betancourt & Weiner, 1982; Betancourt et al., 1992; Betancourt & Lopez, 1993; Karakowsky & Siegel, 1995). By extending this logic to explanatory style in a cultural context, it can be argued that certain dimensions may influence the probability that a group will develop an optimistic or pessimistic style.

Implications for Practitioners

The results of this research suggest that organizations should pay close attention to the habitual explanations of the work groups. For example, the findings in this research study indicate that the type of group explanatory styles (optimistic or pessimistic) does impact turnover intentions. The result of this study suggests organizations should create mechanisms whereby both optimistic and pessimistic explanatory style can be effectively measured at the group level of analysis. One obvious method is to collect survey information about the group's type and level of explanatory style. Some companies now are using optimism questionnaires in their selection procedures to identify not only people who have technical talents but also the psychological optimism needed for success (Seligman, 1991). This would be especially important in companies that have high turnover rates and high recruitment and training costs. Selecting optimistic group members reduces cost and improves productivity and job satisfaction (Seligman, 1991). Further, it may be useful to provide specific training on recognizing and dealing specifically with the antecedents and consequences of the types of explanatory style. Companies which require persistence and initiative in order to bear frequent frustration, rejection, and even defeat should focus on more training that might instill optimism in their employees. Thus, if groups can be trained to recognize that pessimistic explanatory style increases the potential for turnover, the team can begin to manage (and ultimately change) the potential negative effects. As Seligman (1991) explains "learned optimism gets people over the wall- and not just as individuals but the whole team" (p. 256). Workshops for optimism training will teach members of the group what to tell to themselves when encountering adversity. Learning not to give up in the

face of adversity but considering it a challenge that often leads to success should be the major focus of training programs.

Second, an interesting finding in this study seems to indicate that management can enhance performance. Group leaders and management can design mechanisms to enhance the cohesive work environment and usefully contribute to more effective work teams. By enhancing a cohesive work culture and by making sure that in the face of obstacles groups still have forces which keep them together, management and leaders would contribute a great deal to setting the tone for a cohesive environment for everyday operations.

Third, another interesting finding in this study indicates that group issues, such as group cohesion, can impact the turnover intentions of group members. Forces that keep the group members together appear to be very important factor to channel the efforts of the team members toward reducing turnover intentions. Thus, if the focus of the organizational culture will be fostering the forces that keep group members together then the organization will be ahead in reducing high training and turnover costs and increasing high collaboration and coordination.

Conclusions

Overall, this research study presented the notion that when trying to improve performance and reduce turnover in groups, researchers and practitioners should focus more specifically on identifying "how" group explanatory style influences group performance and turnover intentions. In general, this study demonstrated that group explanatory style does matter for turnover intentions. This study presents future

directions for organizational researchers and practitioners to begin examining the effects that "group explanatory style" has on work teams.

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LIST OF TABLES

Table 1

Descriptive Statistics (a)

Variables	Mean/Sd	Perf	Inten	Age	Sex	Educ	Ten	Expl	Poten	Cohes	Ident
Performance	28867.65 (1682.11)										
Intention Quit	3.6461 (1.5462)	-.03	[.81]								
Age	2.7823 (1.8745)	-.20*	-.12								
Sex	1.5056 (0.5014)	.03	.003	.08							
Educ	2.6034 (0.9387)	.24**	-.003	-.23**	.07						
Tenure	23.2335 (20.7924)	.10	.03	.24**	-.15	-.23**					
Expla Style	0.1997 (3.3849)	.09	-.67**	-.12	.06	.05	.03	[.76]			
Potency	7.7577 (1.6085)	.18*	-.10	-.14	-.01	.07	-.22**	.05	[.91]		
Cohesion	7.6292 (1.8766)	-.01	-.21*	.01	-.06	-.03	-.14	.08	.69**	[.85]	
Social Identity	4.0424 (0.5513)	.08	-.19*	.02	.11	-.09	-.08	.16*	.34**	.40**	[.70]

*** Signif. p < .05**

**** Signif. p < .01**

a = Standard deviations in parantheses; reliabilities in brackets

Table 2

Within and Between Analysis for the Group Level Variable

Variable	η		η²		E
	B/w	W/in	B/W	W/in	B/W
Explan Style	0.7	0.34	0.435	0.564	0.76*
Cohesion	0.6	0.36	0.41	0.59	0.69*
Social ID	0.7	0.34	0.43	0.57	0.75*
Gr Potency	0.7	0.34	0.44	0.56	0.76*
Performance	0.7	0.34	0.44	0.56	0.76*

* Signif. E<.77

Table 3

Moderated Regression Analysis of the Moderating Effect of Potency, Cohesion, and Social Identity on the relationship between Group Explanatory Style and Group Member Turnover Intentions

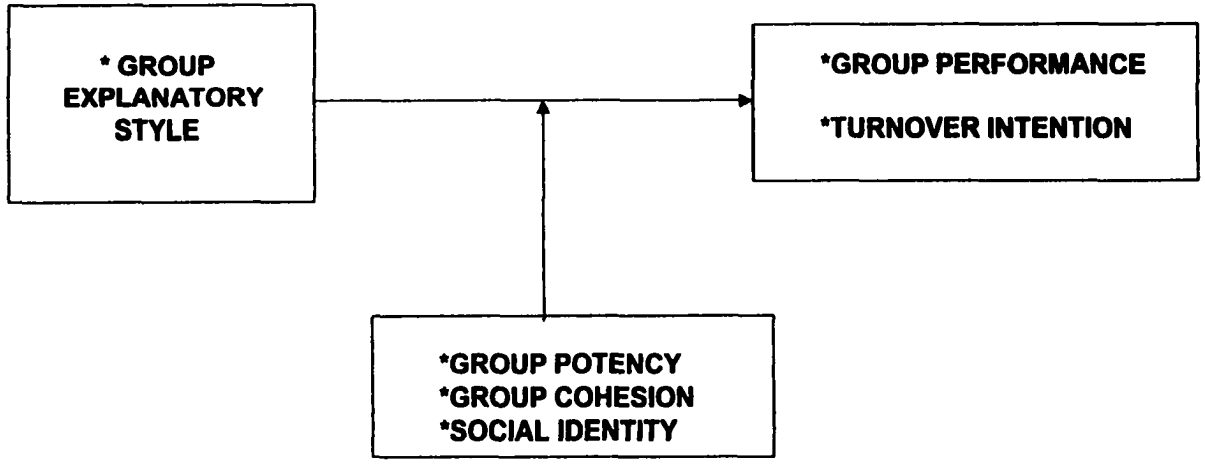
		Intention to Quit					
	Measure	Beta	t	R^2	F	R^2Ch	FCh
Step 1				0.72	30.89***	0.72	30.89***
	Explan Style	-0.75	-9.45***				
	Potency	0.21	1.84				
	Cohesion	-0.35	-3.04**				
	Social ID	-0.11	-1.23				
Step 2				0.73	16.77***	0.003	0.16
	Cohesion*Explan	0.11	0.12				
	Potency*Explan	-0.12	-0.14				
	SocialID*Explan	0.56	0.57				

$^{+}$ p<.10; *<p.05; **p<.01; ***p<.001

LIST OF FIGURES

FIGURE 1

GROUP EXPLANATORY STYLE AS A PREDICTOR OF GROUP PERFORMANCE AND TURNOVER INTENTION IN A MANUFACTURING SETTING



LIST OF APPENDICIES

APPENDIX A

EXPLANATORY STYLE QUESTIONNAIRE

Instructions

In this questionnaire a number of situations are presented. Read each of the situations and imagine it happened to you and your team. Even if it is unlikely that the situation will actually occur, still imagine it did happen and respond to the questions. Based on what you know about yourself, team and organization in which you are employed, write down what you think is the major cause of the event in the space provided (i.e., the "cause"; e.g., bad luck may be a cause of something happening). Answer the three questions about the cause by circling one number per question which best describes the cause you identified. Please do not circle the words.

1. Your team recently received a "Below Average" performance evaluation from your supervisor.

Major cause_____

a) To what extent is this cause due to something about your team

Totally due to my team 7 6 5 4 3 2 1 Nothing to do with my team

b) In the future, at work, will this cause again influence what happens to your team?

Will always influence what happens- 7 6 5 4 3 2 1 Will never again influence what happens

c) Is this cause something that just affects this situation or does it influence other areas of your team work?

All types of situations 7 6 5 4 3 2 1 Influences just this type of situation

2. Your team has a great difficulty getting along with the boss

Major cause_____

a) To what extent is this cause due to something about your team

Totally due to my team 7 6 5 4 3 2 1 Nothing to do with my team

b) In the future, at work, will this cause again influence what happens to your team?

Will always influence what happens- 7 6 5 4 3 2 1 Will never again influence what happens

c) Is this cause something that just affects this situation or does it influence other areas of your team work?

All types of situations 7 6 5 4 3 2 1 Influences just this type of situation

3. Your team recently discovered that they were being paid considerably less than another team performing a similar task.

Major cause_____

a) To what extent is this cause due to something about your team

Totally due to my team 7 6 5 4 3 2 1 Nothing to do with my team

b) In the future, at work, will this cause again influence what happens to your team?

Will always influence what happens- 7 6 5 4 3 2 1 Will never again influence what happens

c) Is this cause something that just affects this situation or does it influence other areas of your team work?

All types of situations 7 6 5 4 3 2 1 Influences just this type of situation

4. Members of your team have great difficulty getting along with each other.

Major cause_____

a) To what extent is this cause due to something about your team

Totally due to my team 7 6 5 4 3 2 1 Nothing to do with my team

b) In the future, at work, will this cause again influence what happens to your team?

Will always influence what happens- 7 6 5 4 3 2 1 Will never again influence what happens

c) Is this cause something that just affects this situation or does it influence other areas of your team work?

All types of situations 7 6 5 4 3 2 1 Influences just this type of situation

5. Members of your team have great difficulty getting along with members of other teams which work in similar positions.

Major cause_____

a) To what extent is this cause due to something about your team

Totally due to my team 7 6 5 4 3 2 1 Nothing to do with my team

b) In the future, at work, will this cause again influence what happens to your team?

Will always influence what happens- 7 6 5 4 3 2 1 Will never again influence what happens

c) Is this cause something that just affects this situation or does it influence other areas of your team work?

All types of situations 7 6 5 4 3 2 1 Influences just this type of situation

6. Several customers have recently complained about the quality of work done by your team to another team holding a similar position with you team.

Major cause_____

a) To what extent is this cause due to something about your team

Totally due to my team 7 6 5 4 3 2 1 Nothing to do with my team

b) In the future, at work, will this cause again influence what happens to your team?

Will always influence what happens- 7 6 5 4 3 2 1 Will never again influence what happens

c) Is this cause something that just affects this situation or does it influence other areas of your team work?

All types of situations 7 6 5 4 3 2 1 Influences just this type of situation

7. A customer contacted your boss to provide a complement for the good quality service provided from your team.

Major cause_____

a) To what extent is this cause due to something about your team

Totally due to my team 7 6 5 4 3 2 1 Nothing to do with my team

b) In the future, at work, will this cause again influence what happens to your team?

Will always influence what happens- 7 6 5 4 3 2 1 Will never again influence what happens

c) Is this cause something that just affects this situation or does it influence other areas of your team work?

All types of situations 7 6 5 4 3 2 1 Influences just this type of situation

8. Your team recently discovered that the incentive bonus given to the members of your team was considerably higher than the incentive bonuses given to other teams holding similar positions.

Major cause_____

a) To what extent is this cause due to something about your team

Totally due to my team 7 6 5 4 3 2 1 Nothing to do with my team

b) In the future, at work, will this cause again influence what happens to your team?

Will always influence what happens- 7 6 5 4 3 2 1 Will never again influence what happens

c) Is this cause something that just affects this situation or does it influence other areas of your team work?

All types of situations 7 6 5 4 3 2 1 Influences just this type of situation

9. All the feedback your team have received from your boss lately concerning the team's quality has been positive.

Major cause_____

a) To what extent is this cause due to something about your team

Totally due to my team 7 6 5 4 3 2 1 Nothing to do with my team

b) In the future, at work, will this cause again influence what happens to your team?

Will always influence what happens- 7 6 5 4 3 2 1 Will never again influence what happens

c) Is this cause something that just affects this situation or does it influence other areas of your team work?

All types of situations 7 6 5 4 3 2 1 Influences just this type of situation

10. Lately the members of your team and your boss seem to be getting along very well.

Major cause_____

a) To what extent is this cause due to something about your team

Totally due to my team 7 6 5 4 3 2 1 Nothing to do with my team

b) In the future, at work, will this cause again influence what happens to your team?

Will always influence what happens- 7 6 5 4 3 2 1 Will never again influence what happens

c) Is this cause something that just affects this situation or does it influence other areas of your team work?

All types of situations 7 6 5 4 3 2 1 Influences just this type of situation

11. Imagine that the members of your team can't get all the work done that is expected from them.

Major cause_____

a) To what extent is this cause due to something about your team

Totally due to my team 7 6 5 4 3 2 1 Nothing to do with my team

b) In the future, at work, will this cause again influence what happens to your team?

Will always influence what happens- 7 6 5 4 3 2 1 Will never again influence what happens

c) Is this cause something that just affects this situation or does it influence other areas of your team work?

All types of situations 7 6 5 4 3 2 1 Influences just this type of situation

12. Several customers have contacted the members of another team to complement about the good quality of work done from your team.

Major cause_____

a) To what extent is this cause due to something about your team

Totally due to my team 7 6 5 4 3 2 1 Nothing to do with my team

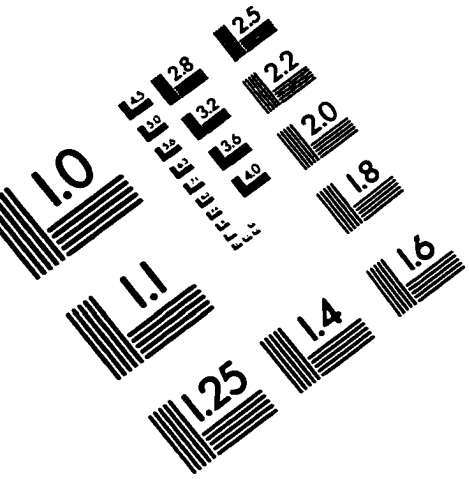
b) In the future, at work, will this cause again influence what happens to your team?

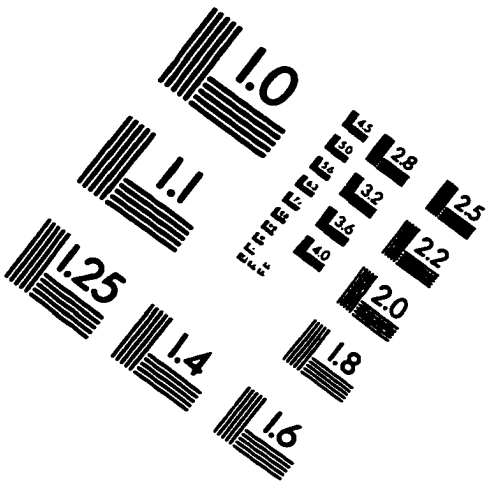
Will always influence what happens- 7 6 5 4 3 2 1 Will never again influence what happens

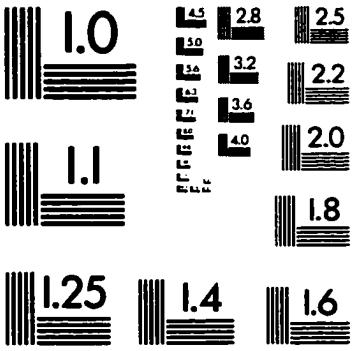
c) Is this cause something that just affects this situation or does it influence other areas of your team work?

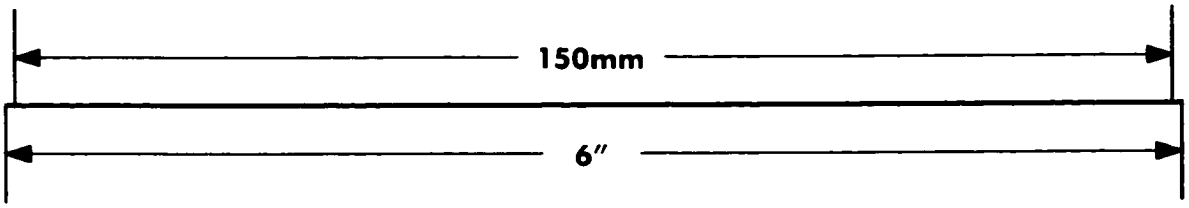
All types of situations 7 6 5 4 3 2 1 Influences just this type of situation

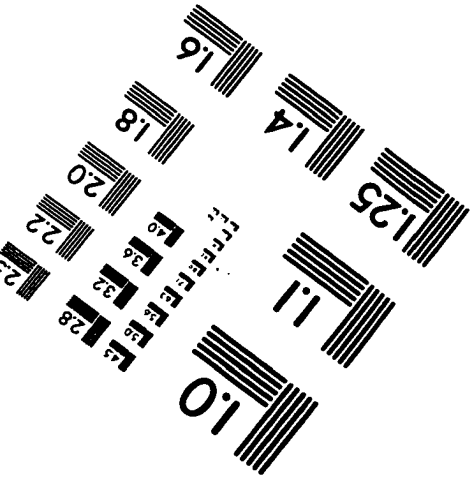
IMAGE EVALUATION
TEST TARGET (QA-3)

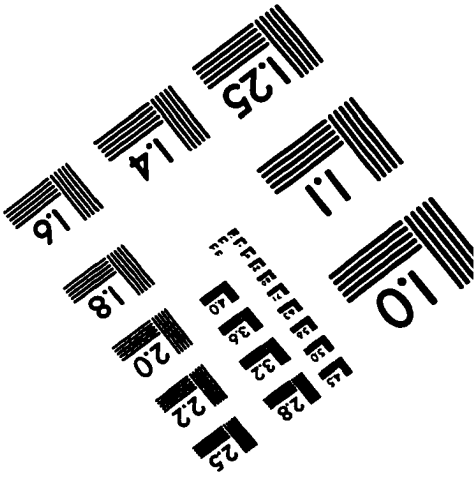












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