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Military Recruit Training: An Arena for Stress Coping Skills

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This report characterizes the sequence of experiences involved in Marine Corps recruit training and describes a coping skills intervention aimed at aiding the adjustment of recruits to stress. The intervention, in the form of a videotape "Making It," was shown to samples of Marine recruits. Other recruits received control and comparison conditions. The results of the research suggested that "Making It" had a salutary effect on the expectations and adjustment of recruits. The research is discussed

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within the context of theories of stress and cognitive-behavioral interventions.

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Military Recruit Training: An Arena for Stress Coping Skills

The study of human stress has no better context for investigation than in military environments. The American soldier drew attention during the Second World War, as theaters of battle were naturalistic, albeit cruel, domains for the study of psychological trauma and adaptation to extreme environments (Stouffer et al., 1949). Unmistakably, research on human stress received a key impetus from investigations of psychological functioning in warfare. Stress as regards the military, however, pertains to conditions and issues much broader than those of war. Problems of stress, coping, and adaptation are not only paramount in situations of combat but are highly salient in recruit training and indeed remain so throughout the enlistment period.

We have been engaged in a program of research that has been concerned with stress, coping skills, and adaptation among Marine Corps personnel. Our primary focus has been on the process of recruit training and the first term of enlistment. The nature of the research has been with regard to the complex interplay between environmental forces and the adaptation resources of individuals and groups as they function over time. We have specifically been intrigued by the social climates of training units as they are shaped by training personnel and how variation in training unit environments is associated with cognitive and behavioral outcomes.

Military recruit training, as an environmental context, has a particular significance for the cognitively oriented interventionist. The recruit is exposed to intense environmental demands continuously

for several months. The recruit is isolated from all previous sources of social support, status, and self-esteem. There is a high degree of supervision of one's actions, and behavior is highly constrained. Coping with the demands of recruit training, particularly in the initial phases, is unmistakably a cognitive process. There is virtually no way to cope behaviorally, in the sense of modifying the environment or regulating one's exposure to stressors.

As stress researchers, we were naturally drawn to this environment as a prime naturalistic condition to which large numbers of young men and women are exposed. We quickly recognized the importance of cognitive coping skills for successful adaptation to the demands of the training environment. While trying to learn about coping strategies in this environment, we developed a cognitively-based intervention that hypothetically would reduce stress among recruits. Using principles generic to the field of cognitive-behavioral interventions, we have presently implemented an experimental program to augment stress coping skills among recruits.

Viewing stress as a condition of imbalance between environmental demands and the person's resources for coping with those demands, stress can be reduced either by lowering the demands or stressors or by augmenting coping resources. Since the demands of recruit training are fixed, as established by formal policy regarding standard operating procedure, stress reduction in this environment can more readily be attempted by interventions aimed at increasing stress coping skills.

The report will focus on the dimensions of stress associated with recruit training and the stress reduction intervention we have developed. In order to set the stage for the presentation of that work, we will

first overview some of the unique demands of military service. The nature of the training environment in the Marine Corps will then be described, along with the characteristics of those who enter it and those who shape it. Following a process analysis of the training experience, we will do a cognitive-behavioral assessment of psychological functioning in that environment and portray how we have attempted to improve adjustment by increasing stress coping skills.

Problems of Stress and Adaptation in the Military

The challenges of adaptation vis-à-vis the military no doubt begin when one either entertains options of military enlistment and/or is confronted by the imminence of service obligations. The military receives wide media exposure, both journalistic and dramatic, and it is a fact that over one-third of the adult male population of this country are counted on the roles of the Veterans Administration. Surely, then, it can be assumed that most young people have formed initial impressions of military service before reaching the age of eligibility. These personal representations and their associated affect are key determinants of enlistment decisions. The perception of challenge and the opportunity to fulfill certain personal needs can be contrasted with the appraisal of service demands as beyond personal capability or simply as aversive. Nearly all recruits, however, enter military training with some measure of apprehension, which is invariably magnified by both routine and chance occurrences in the training environment.

In making the decision to enlist, the recruit expects the association with the military to be positive and personally beneficial. The military expects the individual to make a contribution to the mission of the particular service branch. While both the individual and the service organization

expect tangible rewards from the association, the new recruit is immediately tasked with the difficult demands of social, psychological, and physical adjustment inextricably entailed in basic training.

All military recruits are required to undergo a period of basic training that is eight to twelve weeks in duration. The duration, intensity, and context of training varies considerably across services, as do the criteria used for recruit selection and evaluation. These variations are a function of the general organizational mission of the specific service and the anticipated demands. Recruit training is designed to impart the basic skills, attitudes, and behavior deemed essential for mission performance, as well as inculcate the language and demeanor characteristic of the service branch.

Despite the variations across services, the process of recruit training is relatively similar. Basic training is a period of rapid resocialization and enculturation occurring under conditions of relative isolation and confinement. In a few short weeks, a heterogeneous assemblage of young individuals are expected to develop new behavior that is confined to a narrow range of acceptability. In this regard, a staff of carefully selected training supervisors function as the agents of change. Their own performance is evaluated on the basis of their ability to teach the desired behaviors and eliminate unwanted behaviors and cognitions. The training process thus consists of an intense tutelage, marked by heavy doses of reward and punishment and applied so as to shape desired behavior and positive cognitions about the system.

The transition from recruit training to the "real world" of service life may be accompanied by a personal sense of loss, disillusionment, and disappointment. The recruit departs from an intense environment in which personal behavior and one's every experience have been tightly

regulated and proscribed. In most cases, recruits remember their supervisors as exemplary individuals and have fond recollections of unit cohesiveness. However, at the new duty station the novice is quickly confronted with a new set of environmental contingencies. There is a noticeable difference in the degree of control, supervision, and discipline. The new arrival is expected to learn local rules quickly and to assimilate into the social structure with minimal guidance. Many individuals feel a deep sense of loneliness, finding it difficult to form new attachments and to locate sources of social and emotional support, especially in settings that are culturally dissimilar to those with which one is acquainted.

Although this transition is often difficult, successful adjustment is a prerequisite for service life. Military personnel must constantly be prepared to disengage from familiar surroundings and personal associations and to accept assignment to a new location, as dictated by the needs of the military, regardless of rank or experience. While all services consider individual desires in the making of assignments, in the final analysis, the needs of the service prevail. Sometimes service personnel will welcome assignment to new and unfamiliar locations. Frequent relocations can satisfy a need for adventure and may even become a way of life. Yet for some persons, especially those who are married, who have limited cross-cultural experience, or who must make a disproportionate number of relocations, the frequent readjustments can exert considerable strain.

The rigors of basic training, to be described later, are intended to prepare recruits for combat. In a general sense, boot camp habituates the recruit to the kind of unpredictable stressors likely to be encountered in combat. Discipline, motivation, physical conditioning, and weapons skills are the goals of basic training. Yet there is

considerable variance in the ease with which these objectives can be attained. Physical conditioning and competence with weapons are more readily achieved than are discipline and motivation. Conditions of war are not enjoyable. Preparing soldiers for war inevitably involves a degree of unpleasantness. To an extent, boot camp is tacitly designed as an analogue to the duress of combat.

Stress Engendered by Warfare

The demands of recruit training must be understood in terms of preparation necessary for survival in combat. The stress associated with exposure to the extreme environments of warfare has been studied extensively. Among the most notable works are those of Grinker and Spiegel (1945) on air combat units, Kardiner and Spiegel (1947) regarding traumatic neuroses, Bourne (1969, 1970) on psychological and physiological stress reactions in Vietnam, and Figley (1978) on combat-related stress disorders among Vietnam veterans. It is beyond the scope of our report to review the work in this area; our presentation here is therefore cursory.

Combat environments entail multiple sources of stress which have cumulative effects. Stress is engendered, in part, by exposure to elements of environmental fields that require an adaptive response from the organism or system (Novaco, 1979). The two principal classes of stress-inducing factors prevalent in warfare are harsh physical circumstances that affect tissue needs and the threatening psychological ambiance of combat.

Deprivation, extreme stimulation, disease, and injuries occur under circumstances that threaten a soldier's well-being. The soldier is often constrained in the quantity and quality of food available. Beyond matters of nutrition, this can have significant effects on morale

(cf. Kardiner & Spiegel, 1947). Sleep deprivation is a closely related factor. Fatigue can occur even when there is opportunity for sleep, because vigilance and anxiety preclude relaxation. Even air crews, whose living quarters are the envy of infantry, are likely to have their sleep interrupted by night briefings and early missions, along with the insomnia resulting from the tension of daily combat flights. Oxygen deprivation has also been a problem in high altitude flying.

Extreme stimulation most commonly involves unpleasant temperature and noise. Extreme cold and heat are ever-present stressors in theaters of war, as determined by geographic climate and by lack of insulation from the elements. Combat vehicles, like tanks and planes, also have extreme temperatures associated with their use. While air temperature is a continuous condition, loud noise from exploding bombs, rockets, shells, etc. is an ever-present but often unpredictable stressor in the battlefield. Auditory hypersensitivity is the most common symptom of the traumatic neuroses and is linked with patterns of irritability and aggressiveness observed among psychological casualties of war (Kardiner & Spiegel, 1947).

Soldiers are often exposed to disease-engendering conditions. Poor hygenic conditions, inadequate diet, exhaustion, and limitations on medical care create propensities for illness. Infections range from diarrhea to malaria. Injuries and battle inflicted wounds are obvious sources of combat stress and are the confirmation of the soldier's most basic fear. Moreover, wounds often induce trauma in the victim. This was so tragically seen in Vietnam, as booby traps and mines were common causes of injury which resulted in multiple amputations.

These harsh physical conditions are only one dimension of the stress-inducing circumstances of warfare. The more pervasive dimension

is the psychological ambiance of combat. This has several components: the continuous threat of death and injury, the loss of friends, and the recognition of one's own destructive capacity. Along with the harsh physical conditions of war, the psychological sources of strain summate over time to increase risk of psychological impairment. The recognition of these cumulative effects of exposure was in fact acted upon in Vietnam where the tour of duty was limited (365 days) and there were opportunities for brief periods of rest and relaxation. These factors, along with the application of modern military psychiatry, probably lowered the psychiatric casualty rate in Vietnam, although there are a number of reasons to question the reported statistics for that war.

The business of war is the destruction of the enemy and their will to fight. Every soldier must therefore cope with the fear of death. One of the early studies of fear in combat was undertaken by Dollard and Horton (1944). They found that the most common symptoms of fear were a pounding heart and rapid pulse, muscle tension, a sinking feeling in the stomach, dryness of the mouth and throat, trembling, and sweating (in that order of frequency). Fear was found to be greatest <u>before</u> going into action and was reported by seven out of ten men. Importantly for cognitive-behavioral interventions, they found that over eighty percent of their subjects said that it was better to admit fear and discuss it before battle. From the body of their findings, it can be inferred that the best way to regulate fear in battle is to expect to be afraid, to prepare for it in advance, and to counteract fear in battle by concentration on the tasks at hand. Analogously, we have utilized these ideas in our stress-coping skills intervention for recruit training.

All wars involve being immersed in a hostile atmosphere. The soldier is enveloped by the sights, sounds, and smells of destruction. The

clandestine nature of the fighting in Indochina exacerbated the psychological strain of the combat ambiance. American troops developed "a sense of helplessness at not being able to confront the enemy in set piece battles. The spectre of being shot at and having friends killed and maimed by virtually unseen forces generated considerable rage which came to be displaced on anyone or anything available" (DeFazio, 1978, p. 30).

One of the most important resources for coping with stress in combat is friendship. Beginning in basic training, the soldier learns of the importance of teamwork and discovers reciprocity in helping others. The loss of friends in combat (due to death, injury, or transfer) is emotionally traumatic, as extremely close attachments are formed among the members of combat units. This loss of support is unquestionably stress-inducing (cf. Cobb, 1976; Heller, 1980). Yet those in combat not only must suffer the bereavement but may also have witnessed the horrors of their buddy's death. The anguish can persist with images indelibly impressed in their memories.

Warfare is ugly and soldiers become tormented by the horror of their own actions. Being responsible for the death of others induces guilt, but it also creates apprehension about uncontrolled aggressive impulses. In building motivation for combat, the military indoctrinates soldiers to despise the enemy who are labeled by assorted derogatory characterizations. It is as if the soldier must come to believe that those whom he is fighting are less than human. However, Grinker and Spiegel (1945) stated that "It is erroneous to consider that hatred of the enemy is necessary for a good fighting morale, for hatred and sadistic gratification from killing are sources of guilt to the hater and are not the best motivation for objective and successful combat" (p. 40). They

maintained that until one is personally injured by the enemy, or has experienced the loss of close friends, it is hard to escape the inner repulsion associated with killing the enemy. Furthermore, the teamwork and coordination necessary in battle precludes giving vent to uncontrolled aggressive inclinations.

The psychological ambiance of combat associated with the Vietnam war has had a particular negative effect on veterans who are manifesting "delayed stress reactions." The common themes of the post-combat syndrome are guilt and self-punishment, feeling scapegoated, indiscriminate rage, "psychic numbing," alienation, and doubt about one's ability to love and trust others (Shatan, 1978). The inability to distinguish friend from foe, the necessary mistrust of villagers, the emphasis on body counts, and the political tensions of the war created an atmosphere where indiscriminate killing occurred and dehumanizing conditions prevailed.

With this brief overview of the multiple stressors associated with combat environments, we now turn to our principal subject, that of recruit training. We will delineate the objectives of the training procedure, describe the nature of the training process, and present a cognitive-behavioral analysis of recruit adaptation. We will then describe the coping skills intervention that we are conducting with Marine Corps recruits.

Military Training: Objectives, Functions, and Processes

All first term enlistees in the Armed Forces are required to undergo a period of basic training which is normally 9-12 weeks in duration. Recruit training is designed to impart those skills, attitudes, and

behaviors deemed essential by each service for mission performance. Since each service has a general mission assigned by Congress, recruit selection and training is thought to be directly related to the demands entailed in the assigned mission. For example, Navy training emphasizes seamanship and adaptation to shipboard life, whereas Marine Corps training emphasizes physical fitness, personal/unit discipline, and marksmanship in anticipation of the demands of close combat. Because of the differences in the general missions of the services, recruiting standards vary, as does the duration, intensity, and content of recruit training.

For the military, it is the proper combination of recruit selection and systematic training that insures continuity and accomplishment of the assigned mission. This vital process of selection and training maintains the organization and increases the probability that assigned missions will be successfully carried out. For the individual, recruit training is intended to facilitate personal adjustment to the military way of life and to provide those skills necessary for adequate coping with future demands.

Few would question the logic of preparing members of the military for future assignments and life experiences. Since individual assignments vary greatly from the operation of complex technology to participation in protracted, small unit combat, it is reasonable to assume that training should be conducted so as to prepare the majority for the range of environment which they may encounter. Not only is it necessary to train personnel in the technical aspects of their jobs, but it is also necessary to acquaint new enlistees with the organizational structure of the particular service and to instill those attitudes and behaviors valued by the organization.

The principal function of recruit training is to organize and indoctrinate young enlistees to insure that the military maintains a prescribed level of mission capability. An assumption underlying both the content and the process of recruit training is that society does not provide certain experiences and training thought necessary for survival in situations where the military might be deployed. Each service assumes that each recruit is relatively unprepared for military life. The new recruit is viewed initially as undisciplined, unkempt, and not adequately prepared for the responsibilities of adult life. It is not uncommon for training supervisors to attribute the recruits' lack of skill and preparation to some basic flaw in society.

However, it is useful to bear in mind the distinction made by Merton (1968) regarding manifest and latent functions. Manifest functions refer to intended objective consequences, whereas latent functions refer to unintended, unrecognized, but nevertheless identifiable consequences that result from a standardized practice. As regards military training, it can be seen that it performs a collateral or latent function of providing education, employment, and opportunity otherwise not available to a segment of the adolescent population. In the structure of our society, it is difficult, if not impossible for educational institutions and industrial organizations to provide opportunity, education, and employment for everyone. Furthermore, there are sub-groups within society having distinctive needs and desires (e.g., adventure seekers, risk takers) that are unsatisfied by established institutions. It can be argued that a significant latent function of military training is to provide alternative channels for social mobility for those who do not see as appropriate the more traditional avenues for personal and social advancement. Additionally, military experience provides an opportunity for many to overcome a

history of negative experiences.

A significant number of those who enlist in the service do so for such benefits as education, travel, and the opportunity to prove to themselves and to others that they have the ability to be productive, useful members of the community. For some individuals, the primary motivation to enlist comes from a need to be confronted with a challenge where success constitutes an immediate and tangible reward. In this regard, recruit training can be viewed as an environment where individuals are tested on their social, psychological, and physical adaptation skills.

The researcher entering the military setting should be prepared to confront the reality that people are being trained to win in combat through the total destruction of a politically defined enemy. Regardless of the content of training, the basic mission remains to project maximum resources in the theater of battle to destroy the opponent. All other considerations are secondary. Bearing in mind these issues, the recruit training environment does afford the stress researcher a unique opportunity to study stress and adaptation. The organizational structure of the military training environment provides a degree of natural control not often found in field research settings. Record systems are systematic and comprehensive, allowing the researcher to incorporate archival data and training process information at various levels of analysis. Naturally existing conditions allow the researcher who has adequate knowledge of the system to achieve an acceptable level of experimental control without having to resort to the artifical manipulation of persons or environmental conditions. Of particular importance is the fact that stress levels in recruit training are often quite high.

Recruit Training in the Marine Corps

Each year, approximately 50,000 young men enlist in the Marine Corps, where recruit training is commonly acknowledged to be the most rigorous of all military branches. Marine recruits are trained in two locations, Marine Corps Recruit Depot Parris Island, South Carolina, and Marine Corps Recruit Depot San Diego, California, with approximately 25,000 recruits being trained in each of these recruit depots. Our own research has been located at the training base in San Diego and the associated facilities at Camp Pendleton.

The training base is an austere environment that is actually adjacent to the San Diego Airport, Lindberg Field, from which the booming takeoffs of commercial jets regularly impair routine conversation. Incoming recruits arrive on commercial flights to Lindberg Field where they assemble at a military liaison facility in the airport to await an anxiety-filled bus trip to the receiving barracks at the training base. When a sufficient number of recruits arrive at the receiving barracks to form a platoon (60 to 90 men), the first stage of recruit training, known as Processing, will begin the training cycle which lasts approximately 87 days.

Recruit training is conducted in four stages: processing and then three training phases. The processing stage is a four to six day period that is designed to acquaint the individual with military life and the members of his training unit (platoon). This stage is an important period of transition from the civilian to the military life style. During this period the recruit completes a number of administrative processing tasks, undergoes various testing, and has a thorough medical and dental evaluation. While the Marine Corps considers this time to be uneventful and "low stress," it may be quite traumatic for the young recruit.

From the moment he is ordered off the shuttle bus from the airport, he enters an environment composed of strange, unfamiliar sights, sounds, faces, and rules. When first introduced to supervisory personnel (drill instructors), the recruit is confronted with an authority figure who is impeccable in bearing and dress and is in complete control of the situation. Immediately, it becomes clear that the only acceptable behavior is that prescribed by the drill instructor.

It is very likely that the introductory period of recruit training constitutes the point of maximum stress for most recruits. Bourne (1967) noted that following the first 24 hours, men exhibited a picture of dazed apathy. In addition, he cited research indicating that this acute reaction is dramatically reflected in the 17-hydroxycorticosteroid levels which are comparable to those measured in schizophrenic patients during incipient psychosis. This is not surprising considering that in the minutes after arrival the recruit is denied expression of idiosyncratic behavior, and has hair, clothing, and other personal belongings removed. Previously learned verbal and non-verbal responses are quickly found to be inadequate and inappropriate. All behavior is under the control of the drill instructor. Any display of emotion (fear, anger, disgust, crying, smiling) brings an immediate negative reaction from supervisory personnel. Any attempt by the recruit to exert personal control over the situation, other than responding to the task commanded, results in personal criticism. For the recruit, the first lesson learned in training is the avoidance of aversive stimulation by quickly and accurately responding to the directions of the staff. This basic lesson is continuously reinforced throughout the training cycle at both the individual and the group level.

Successful adaptation is in large measure contingent upon the recognition that criticism from the drill instructor decreases as the frequency and quality of desired behaviors increase. In the early days of training, virtually all reward involves negative reinforcement contingencies. Those who are either slow or unwilling to modify their behavior accordingly are singled out for increased attention and possible disciplinary action or recommendation for discharge. Some recruits have acute stress reactions, resulting in referral for psychiatric screening. Our analyses of archival data revealed that approximately 58% of those failing to adjust psychologically or behaviorally are discharged within 17 days (prior to the start of Phase II) of training. One is led to speculate that failure of these individuals to adapt begins during the first 24 hours and becomes progressively worse over time. The stress reductioninterventions that we have developed are targeted on the recruits' psychological experiences during the processing period. Our intent has been to help him understand his reactions during these initial days, to cognitively prepare him for future experiences, and to offer some coping strategies for the challenges he is about to face.

After processing is completed, the recruit and his platoon are introduced to the drill instructor team that will supervise their entire training. Phase I dramatically begins with an event know as "sea bag drag" when the members of the platoon haul their sea bags, which are about three feet long and weigh about 50 pounds, from the receiving barracks to the training barracks, which is a distance of about 1/4 mile. The key elements of this event is that this is to be done

at a quick pace, in accord with the drill instructors' urgings, and that the platoon is to move as a unit. Sometimes platoons are circled back to pick up trailing recruits.

Phase I is a two week period of basic instruction in military skills and knowledge. Physical conditioning is given maximum emphasis, with the recruit quickly progressing from basic physical exercises to very strenuous tests of strength and endurance. The transition from Processing to Phase I requires adjustment to a new set of drill instructors who have been glorified by personnel in the processing phase. In essence, the recruits have been given a set of expectations regarding these new authority figures that is indeed anxiety-producing. There is little doubt in the recruit's mind that these drill instructors are in complete control of him. There is also no doubt that engagement with the demands of training has begun.

During this period a concerted effort is made to increase performance and to instill discipline. The recruit comes to realize that he has no other identity within this environment other than that based on performance and conformity. Autonomous decisions are eliminated through the scheduling of daily activities. Most channels of communication with the outside world are broken or severely restricted. Competition among individuals and units increases as pressure is applied to substandard recruits by drill instructors and fellow recruits. For those having difficulty meeting minimum performance standards, the demands of the total environment increase disproportionately.

As training progresses, the recruit is expected to keep up with increasingly difficult physical training demands. He is also introduced to "incentive training." When individuals or groups make mistakes, they are subjected to a series of exercises, with a prescribed number of repetitions, performed at a very rapid pace under close supervision. The incentive offered is removal of the threat of extra physical exercise, contingent on the satisfactory performance of tasks.

There is a distinct demarcation of the beginning of the second phase of training. Phase II is conducted at Camp Pendleton, which is located 40 miles north of San Diego. This phase involves two weeks of training with the service rifle, one week of combat training, and one week of work duty (mess duty or grounds maintenance). Importantly, this phase constitutes a period of attainment for the recruit. Marksmanship proficiency is an explicit result of individual effort and competition. Qualification tests, conducted at the end of two weeks at the range, represent the first occasion of tangible recognition of the individual by the system, as silver badges are awarded according to levels of performance. Successful qualification is marked by exhilaration and a pronounced sense of efficacy.

After attaining proficiency with their rifle, recruits begin to internalize their new identity. They are then given one week of field combat training in which combat conditions are simulated. For most recruits, this is an enjoyable as well as a demanding time, while this is what many expect life to be like in the Marines, it stands in

contrast to the following week of training which provides a glimpse of normal work life in the Marine Corps. The work details are fatiguing, but they do provide the first opportunity for recruits to have contact with someone other than fellow recruits and drill instructors. At this point in training, the recruit has "passed over the hump" and can now anticipate graduation as a Marine.

In Phase III the recruit prepares for various tests of military proficiency to be completed prior to graduation. These will consist of oral and written tests of military knowledge, physical fitness tests (PFT), and evaluation of the platoon's performance in drill. For obvious reasons, the Marine Corps places a strong emphasis on physical conditioning, and the recruits must not only perform on routine exercises (running, sit-ups, and pull-ups) but must be able to succeed on the obstacle course which involves many strenuous tasks of running, jumping, and climbing.

The environmental context is predominantly that of a total institution, as Goffman (1957) has portrayed in his sociological analyses. The characteristics of "total institutions" are (a) that all aspects of life occur in the same place under the same authority, (b) that each phase of daily functioning is carried out in the immediate company of others, with everyone treated alike and required to do the same thing, (c) that activities are tightly scheduled and the scheduling is imposed by institutional authorities, and (d) that all activities are part of an overall plan to fulfill the aims of the institution.

Although Goffman's concepts are distinctly applicable to the

recruit training environment, there are certain aspects of recruit training that depart from his characterization of total institutions. For many recruits, as our longitudinal data have shown (Cook, Novaco, & Sarason, 1980), the training cycle provides an opportunity to learn that significant rewards result from personal effort. Many recruits have overcome ingrained negative self-perceptions and experience the enhancement of self-esteem as training progresses to the point where graduation is in sight. One characteristic of the early phase of training is equalization. Those who have had minimal status in their past life now have an opportunity for accomplishment. By meeting established performance criteria, positions of responsibility and other rewards can be achieved by those for whom reinforcement has been elusive. When recruits graduate, they are in excellent physical condition and are imbued with confidence. They are extremely proud of their accomplishments in the completion of training. Many feel that they have now attained adulthood in the eyes of society.

In order to fully understand the psycho-social demands of recruit training it is important to keep in mind that the primary purpose of basic training is to prepare recruits for the stress of combat. The Marine Corps is strongly committed to the position that the methods and techniques used in training are necessary to provide a realistic test of stress tolerance. From this perspective, the Marine Corps believes that it is prudent, and ultimately more humane, to provide this screening and learning under conditions where the probability of death due to error is very low than to send ill-prepared troops into combat. This assumption underlies both the process and content of training and is one which is often overlooked in discussion of the efficacy of methods used by the military.

Attrition in Recruit Training

Of all the recruits who begin basic training ("boot camp"), 88% successfully complete the training cycle. The remaining 12% are discharged (attrite) for a variety of medical, psychological/behavioral, and other reasons. Attrition has proven to be a perplexing problem for the military, ranging up to 40% during the first-term of enlistment. Given that approximately 3,000 recruits fail to complete training at each of the Marine Corps' training bases each year, it is easy to see that attrition is a problem that receives organizational attention and has been extensively researched (Hand, Griffeth, & Mobley, 1977).

Our attention to attrition in recruit training has been guided by our ideas about stress coping skills. Conservatively estimated, about 45% of attrition in recruit training is psychological/behavioral in nature. Because the recruit cannot simply opt for a discharge to escape the stress of training, attrition can be viewed as a breakdown in performance under stress. However, this is not to say that attrition is primarily due to the individuals. Our research that is concerned with attrition, in fact, departs from most previous investigations by the attention given to objective properties of the organizational environment and the analysis of attrition in terms of the interrelated component of the system (Novaco, Sarason, Cook, Robinson, & Cunningham, 1979).

We sought to map rates, forms, and patterns of attrition to understand its nature and to determine the degree to which attrition results from factors or conditions that are psychologically related and therefore might potentially be influenced by a psychological intervention. We pursued these objectives beginning with an analysis of archival data

on attrition over a one-year period. We then conducted a case analysis of psychologically related discharges. These efforts then led to an extensive study of a month cohort (October, 1978) of recruits through the training cycle, which we are presently tracking through the entire enlistment period. A second cohort study (June, 1979) was conducted as a replication. In these investigations, we assessed the influence of demographic, aptitude, personality, and training unit factors on attrition and performance.

The most important findings that have emerged in our research concern the variations in training unit environments that are linked to patterns of recruit attrition (Novaco et al., 1979). In conducting the analyses of archival data, we noticed that attrition rates varied significantly among the three battalions of the training regiment. Since this analysis involved over 2,925 attriters and a total accession of 24,481 recruits, our finding of a 5% difference in attrition rate between battalions suggested the operation of non-random factors. We then found in a study of randomly selected cases discharged for psychological/behavioral reasons that one battalion, which accounted for 37.9% of the total accessions, accounted for 49.3% of the psychological/behavioral discharges in our sample (N = 205). These findings consequently led us to track attrition at the platoon level to further examine the operation of training unit differences. This was done in a study of the October, 1978 cohort. In that investigation, we studied a one-third random sample (N = 597) of recruits through the training cycle, collecting extensive measures on demographic, aptitude, personality, and training performance variables. A total of 15 platoons were involved in the study.

The training unit variation was pronounced. Attrition varied from 0% to 28% across platoons. The question of course is what factors are responsible for such variation? Our hypothesis, generated by informed observations of the training process, was that the variability in attrition rate is associated with the manner in which the drill instructor team operationalizes the training regimen. That is, despite the highly routinized and specified procedures for the conduct of training (activities are scheduled down to the minute), the social environment created by drill instructor teams may vary nonetheless. Importantly, our belief was that the variations in social climate were not related to recruit attainment of skills.

There are several competing explanations related to our hypothesis about the social environment of training units. First, the variation in attrition rates might be due to a variety of pre-training variables, such as demographic, aptitude, or personality factors, that are not evenly distributed across platoons. Another possibility is that the differences in attrition are a function of differences in the performance standards of unit leaders. This rival explanation asserts that attrition is directly correlated with performance. High attrition rates are seen as resulting from the exclusion of low achieving recruits from high achieving units. Conversely, low attrition training units reflect laxity in achievement standards. Furthermore, this view maintains that low attrition during the training cycle consitutes a suppression of attrition that will inevitably occur after graduation during the enlistment period.

In order to test the alternative hypothesis, we constructed a three-level classification (ATTRITVAR) of platoons according to their

attrition rate, thus generating low, medium, and high ATTRITVAR groupings. Our data have shown that there is no support for the belief that variation in attrition is due to differences in the initial composition of platoons or for the performance standards hypotheses. Remarkably, no demographic, aptitude, or personality factor differentiates the ATTRITVAR groups at the .05 level of significance. This is striking because, given the sample size, small differences that account for little variation and have no practical significance can attain statistical significance. With regard to the performance outcomes, the results are particularly persuasive because the analyses are biased in favor of performance standards hypothesis in that the performance measures are taken late in the training cycle -- i.e., when the vast majority of attrition has occurred. Consequently, if recruit attrition represents the exclusion of poor performers, then performance must surely be highest in the high attrition condition. However, the results are that the high attrition platoons do not produce higher performing recruits and that on certain measures (e.g., marksmanship and military knowledge) they are significantly lower in performance. These findings, obtained with the October, 1978 cohort were replicated with the June, 1979 cohort.

The second aspect of the performance standards hypothesis concerned the possibility that low attrition in recruit training merely suppressed attrition that would consequently occur after graduation. In essence, high attrition drill instructors are viewed as expediting the inevitable. However our recently obtained longitudinal data on the October 1978 cohort, shows that at the two year point in the enlistment period the post-graduation discharge rate for the low and medium

ATTRITVAR conditions is significantly lower than that for the high ATTRITVAR group. Training units having high attrition during the training period continue to have high attrition after graduation. The difference in total attrition from the start of training to the two year point is striking when the two lowest attrition and the two highest attrition units are contrasted (17.6% and 15.6% vs. 48.8% and 33.3%). It is unmistakable that recruit training is being operationalized in different ways by unit leaders and that these differences in the implementation of training are important from both a practical and scholarly standpoint.

At present, we are studying the nature of the social environment of the training unit as shaped by the drill instructor team. This is being accomplished by repeated measurement of recruits over the training cycle to assess changes in cognitions and affective states, as well as the development of the social support network within the platoon. Some of the findings on cognitive changes will be discussed in the subsequent section. We are also conducting studies of drill instructors to determine the correlates of low attrition versus high attrition outcomes in cross-sectional investigations, and we are examining developmental processes in longitudinal studies beginning with the start of drill instructor school.

A Cognitive-Behavioral Analysis of Recruit Training Adjustment

As stress researchers, we are drawn to this environment with its multidimensional stressors as a prime context for studying the dynamics of person-environment exchange over time. It was also evident that, given the environmental structure, the successful completion of

training is highly dependent upon the development of cognitive coping skills. We hoped to learn about the cognitive coping strategies that recruits adopt to make it through the rigors of training and sought to implement a stress coping skills intervention based upon theoretical models and our field observations.

The discovery of the training unit environment effects has important implications for expectations about a stress reduction intervention that is designed for the recruit. The environmental demands in certain training units may be of a nature that overrides a beneficial influence that might otherwise be obtained from our coping skills intervention. The fact that the exposure time for the intervention program will necessarily be short relative to the length of exposure to the environmental demands imposes an additional limitation. Nevertheless, many things point to the critical significance of the early stages of training and the importance of adaptive cognitive strategies during this period.

The process of adjustment to recruit training can be understood in terms of the cognitive-behavioral framework proposed by Novaco (1979) for conceptualizing human stress. This model identifies two classes of cognitive processes that function as mediators of stress, these being <u>expectations</u> and <u>appraisals</u>. The expectancies pertain to anticipated environmental demands and to the person's beliefs about performance capabilities in response to those demands. The appraisals refer to interpretations of the environmental demands and to judgments made about one's response to them. The historical and contemporary use of the concepts of expectancy and appraisal in various psychological theories (e.g., Arnold, 1960; Bandura, 1977; Lazarus, 1966; Rotter, 1954; Seligman,

1975) reflects the utility of these constructs for describing, explaining, and predicting behavior.

These two classes of cognition are viewed as interrelated and as having reciprocal influences with behavior. Expectations as subjective probabilities about future events, are based on previous appraisals of related circumstances and upon behavioral performance in those situations. Appraisals, which accompany or follow the exposure to environmental demands, are a function of expectations about demands, expectations of performance, and self-observation.

Related to the operation of these basic classes of cognitions is the role of private speech. Self-statements give representation in language to the expectation and appraisal structures. Thus, self-statements are seen as expressions of the dynamic cognitive operations, but they also act as internal stimuli which can incite, maintain, or regulate emotional arousal and can serve as cues for attention and for behavior. In the cognitive-behavior therapy literature, much emphasis has been given to the use of coping self-statements, following the work of Meichenbaum (1974). In the recruit training environment, where behavior is highly constrained, coping self-statements take on even greater significance.

Earlier we described some of the routine events that recruits encounter as they enter and become immersed in the training environment. We will now portray these stressful experiences in terms of the expectations and appraisals of recruits. We will illustrate the changes in the cognitions during the training cycle and discuss the role of social support in the adjustment process.

Expectations

Recruits indeed form definite expectations about basic training prior to their arrival at the training base. Virtually everyone has had someone

tell them about boot camp and about drill instructors. The common expectations are that training will be intense and demanding and that drill instructors are harsh in their manner. However, although recruits expect training to be tough, their notions of this are primarily with regard to physical demands. What recruits encounter during the initial days instead are psychological demands. And the vast majority of recruits are not prepared for them. They anticipate tests of physical strength and endurance, but their first dose of stress derives not from physical athletic-like challenges--rather, it is a matter of psychological ambiance.

When recruits arrive at the receiving barracks after an anxiety-ridden bus shuttle from the airport, they immediately find themselves immersed in an environment that envelopes their daily lives. By design, the recruit experiences a definitive break from civilian life and a rapid exposure to the rigors of the Marine Corps. Ordered to perform many new tasks under time constraints coupled with pressures for perfection, removed from all previous sources of security, and continuously reminded of the consequences that will result from the failure to obey orders, the recruit is in a state of disequilibrium marked by anxiety and worry. One recruit who had a stress reaction on the second day of processing had this to say about his experience the first night:

> "Man, it was nothing like I expected. My nerves just crashed. I thought there would be some sort of break-in. I was psyched out. I was telling myself, 'what is going down, man?' You feel weird, really weird."

Some of his friends had told him boot camp "was a bitch," and there was others who said that it wasn't so bad, "just a lot of physical training." When he arrived at San Diego he tried to prepare himself for the experience, but despite his resolve, the uncertainty was evident.

"I was nervous. I kept wondering, always wondering, what will we do tonight?" I was thinking, 'Man, here I am; I better be ready. I hope I can handle it.'"

Despite his efforts to learn what he could about the training regime before his arrival, he found himself caught off balance.

"I just had to come to feel what it was like. I didn't expect it to be what it was. (I'd tell others) you'd better be more ready for this than anything in your life. You won't even expect half of what you get."

When experiences are discrepant from expectations, the person is in a state of disequilibrium and induced physiological arousal. This physiological activation is unmistakable during the first hours at the receiving barracks where the recruit is bombarded by demands that require an immediate response, keeping them continuously off balance. Even successful recruits experience this stressful disorientation.

"It started at the airport desk (military liaison station). You got your first taste of boot camp. No more chewing gum or touching your face. No talking, always stand at attention -- all that hollering was a real shock. Everything was a shock."

"Everybody was standing in a corner not knowing what to expect, just too scared to talk. A lot of things are going through your mind."

"You're real, real nervous. You wonder, you want to ask a question, but are they going to holler at you? Are they going to call you stupid or something?"

What are some of the things that recruits say to themselves when they first get off the bus and encounter their drill sergeant?

"I want to go back home."

"Is this guy for real?"

"Why am I here? I could be home enjoying myself." "Why did I do this? Why didn't I go to the Navy or the Air Force?"

The disorientation is nicely conveyed by one recruit, who subsequently graduated with honors:

"(The sergeant) was rattling things off so fast (that) it registered in your mind, but you didn't know what to do. That's the first taste of getting in trouble for a lot of recruits. I know because I was one of the first ones.

I was carrying documents from the AFEES (Armed Forces Entrance and Enlistment Station), and I had to take them into the office building inside, and he was yelling off to go through this door and that door, and I was scared to death. I was even afraid to breathe. All I seen was a door, and I ran through it and up the stairs, but the Sergeant saw me and started hollering at me and called me down to the bottom floor. I was really scared. I didn't know what to do, how to answer him..."

This disorientation and the associated anxiety lead to mistakes, hesitations, and general confusion. Virtually every recruit feels the apprehension of making mistakes.

"It felt like being tied up in a knot; not knowing which way to turn."

"You're just confused, nervous, and shaky."

"You start trying to do things so fast, you just screw things up worse."

The theme of unexpected events and ambiance is consistently conveyed by those we have interviewed and in our field observations. The disturbed affect associated with task demands and responding to the drill instructor

stands in contrast to how recruits respond to the haircut (electric clipper shavings) that they receive shortly after arrival at the receiving barracks. The haircut, which can give shivers to an observer, really does not bother the recruit. It is a clearly defined event, and they expect it. They are psychologically prepared for it when it happens and commonly joke about it afterwards.

Coupled with the exposure to unexpected demands is a low sense of efficacy. Especially during the initial days of training, the recruit finds that he cannot do anything right. This sense of incompetence is exacerbated by the absence of positive reinforcement from the training personnel. There is virtually no praise, compliments, congratulations, or any other form of verbalized encouragement in the utterances of drill instructors during the early phase of training. At best, the recruit strives to perform so as to avoid or escape criticism and punishment. When recruits fail to meet their drill instructor's performance expectations, they are punished by having to do intensive physical exercise (known as "incentive training"), the length and pace of which is regulated in accord with how far the recruit is in the training cycle. Thus, reward largely consists of negative reinforcement contingencies. Importantly, this low sense of efficacy experienced and, to be sure, induced during the initial part of training will be dramatically altered as the recruit processes through training.

Appraisals

The focus of the recruit's appraisal processes is the drill instructor. His voice, which booms from beneath a Smokey-the-Bear hat, unfailingly captures the recruits' attention. His impeccable dress and self-assured manner stands in sharp contrast to the recruit's sense of personal awkwardness and ineffectuality. He is very much in control of the recruit, a fact which elicits a full gamut of emotional responses.

Some recruits' reactions to their drill instructors during the early periods of training are a mixture of fear and anger, with anxiety reactions being the most prevalent. Their appraisals commonly refer to them being recipients of a "shock treatment" that continues throughout the training cycle:

> "You're always in shock ... I believe that's what they wanted to accomplish -- to test you mentally, see what you are made of. They still try to do that, they've done that since T-1 (training day one). They test 'ya all the time."
>
> "You really never wear off the initial shock; they keep you on edge. All they have to do is snap their fingers. They can work you and put you back into shock."

Coupled with the obvious anxiety is a modicum of anger arising from the drill instructor's manner:

> "I wanted to lay him out."
>
> "I didn't like his attitude. He felt we were the lowest meat on the counter -- worms."
>
> "I'd be sayin', 'Get off my case man, give me some slack.
>
> "I cussed in my sleep."
>
> "It wasn't the haircut, it was the way they handled my head."

The antagonistic appraisals which lead to anger must be kept in balance if the recruit is to adjust successfully. Expressions of anger, even the slightest hint of annoyance, are not tolerated by training personnel. Any verbal or non-verbal behavior by the recruit that suggests annoyance with training personnel or tasks will promptly result in aversive consequences. Thus, to the extent that a recruit feels angry, he must control it, and direct the anger toward constructive outcomes, perhaps using it to energize his behavior (Novaco, 1976).

Disappointment and depression are also among the stress related affects that may arise in conjunction with training demands. For many recruits there is a recurrent worry of being set back in the training cycle either because of failing on performance tasks (e.g., the obstacle course) or because of interrupting circumstances (e.g., health problems). A high value is attached to being able to complete training with one's original platoon (the importance of social support is discussed below), and recruits do experience considerable disappointment when they are recycled. Organizational leaders have been particularly sensitive to the possibility that recruits who are set back will form failure appraisals and will experience loss. Consequently explicit attention is given to recruits in these circumstances during the transition period when they await joing a new platoon.

Cognitive Changes Associated with Training

Over the course of training, marked changes occur in the expectations and appraisals of recruits. With each new achievement, the recruit develops increased confidence in his ability to take on new challenges. The changes in efficacy expectations and their relationship to performance is currently being examined. We have found that locus of control expectancies shift according to training unit environments, particularly in combination with the pre-training expectancies and life experiences of recruits (Cook, Novaco, & Sarason, 1980). Those who are trained in units having low attrition or medium attrition rates become more internal in locus of control, particularly recruits who begin training categorized as externals and have had negative life experiences, as indexed by the Life Experiences Survey (Sarason, Johnson, & Siegel, 1978) and by failure to complete high school. In contrast, training in high attrition rate platoons results in shifts toward externality, particularly for those

who begin training as internals. Our hypothesis about these findings is that they reflect the reinforcement contingencies in the training unit as engineered by the drill instructor team.

The changes that occur in the appraisals of recruits who successfully complete training result from both (a) exposure to the environmental elements over time and (b) the coping efforts utilized by recruits. Quite obviously, recruits learn from experience and reappraise environmental circumstances accordingly. For example, as training proceeds, they begin to recognize that tasks and drills that may have seemed to be irrelevant nuisances at first later turn out to have had a purpose.

> "Everything they try to teach you has a purpose."
>
> "There is basically a reason for everything."
>
> "All the stuff that they made us do back in receiving (processing) that you thought was a bunch of bull, it all turns out to have a reason."

The prime case of reappraisal occurs with regard to the drill instructor. Recruits will commonly view him with high admiration, especially as the day of graduation nears.

> "You think he is the meanest man in the world at first."
>
> "After a while, you get feelings of respect. They grow on 'ya."
>
> "After you've been with him awhile, you'll find out (that) they're understanding. They know what you're going through."
>
> "If you behave in a military manner, they'll treat you in a military manner and will give you privileges -- not a lot, just enough to keep us in line, with the understanding (that) there will be more."

To be sure, there are distinct differences in the personalities of drill instructors, who would all not be the object of encomium. We are

presently conducting longitudinal studies of drill instructors, beginning with their own training for this organizational role. One focus of this work is on the cognitive and behavioral attributes of drill instructors as associated with their performance as unit leaders.

Reappraisal also occurs as a result of coping efforts. In order to adapt to the manifold demands of the training environment, recruits must learn to alternatively construe the harsh circumstances to which they are exposed. Some of these coping reappraisals concern interactions with drill instructors and their patented high volume supervision:

"Ya wonder, did I really do all that bad to make him yell in my ear? Why is he yelling? But then you think, if I try harder the next time, then he won't be yelling at me."

"Yelling is just part of it, you couldn't have screwed up that bad. You just get accustomed to it."

"You try hard not to make mistakes, but you're gonna make them, because you're a recruit."

One of the best illustrations of coping reappraisals occurs in conjunction with physical training and its associated pain. The intense regimen of calisthenics, long distance running, the obstacle course, and even the shooting positions at the rifle range all involve the endurance of pain and discomfort. Recruits must learn to cope with this pain, and their efforts reflect the strategies advocated by Turk (1978) for pain regulation:

"Pain is always gonna be there, you just fight it."

"It isn't going to last forever, you know its going to end."

"You keep telling yourself you gotta do it, because if you quit it's going to be a lot worse."

"Just let it hurt, because later on it won't, and it will be good for me."

"I keep my mind loose and keep happy thoughts."

"It's kind of mind over matter."

"You never know how long the run is going to be, so I think about the scenery - keep your mind off your legs."

As competence and conditioning improve, pain and discomfort inevitably diminish. An irony in this regard is that the punitive "incentive training" exercises must be intensified in order to serve their intended function. Phase three recruits would barely work up a sweat doing the "IT" administered to phase one recruits.

At this point in the training cycle, recruits have developed all of the psychological resources required for successful coping. They will be exposed to an intensification of demands that they have already encountered (e.g., physical conditioning tests) and to several new stressful circumstances, such as those in field combat training. But they have now learned what to expect from their drill instructors and how to constructively appraise the routine stressors of the training regimen. Having successfully qualified at the rifle range, many of their performance anxieties have thereby been allayed. Although they will worry about succeeding on other tests of performance, they now know that they can succeed.

Coping self-statements are actively utilized by recruits in many aspects of training and particularly in regard to performance demands. Some of these self-statements have been included above as representations of the expectation and appraisal processes. However, recruits actively engage in self-instruction as a way to prime their motivation, especially when endurance is an issue, as it is for long distance running:

"I tell myself, 'I can keep going.' You gotta motivate yourself."

"Just one more mile, and we'll be home."

"I keep telling myself, 'I'll get better'."

"You tell yourself, 'If I don't make it, you might as well forget it'."

Another key use of coping self-statements is with regard to maintaining a task-orientation. Recruits commonly will instruct themselves to "Concentrate on the task", "Stay alert", "Listen to the D.I.", "Just do it right, and keep your cool".

When recruits go to Camp Pendelton for the second phase of training, their primary agenda concern instruction in marksmanship and field combat techniques. The experience at the rifle range is an important one psychologically, because it is the recruits' first structured opportunity to receive positive reinforcement and to strive for personal achievement. We have observed that recruits become enthusiastically engaged in attaining the best possible performance. Their mood is generally positive during this period, and there is distinct bonding of the platoon members. Their group performance is tabulated and so it reflects on the quality of the platoon. Drill instructors, invested in the performance of their platoon, begin to supply encouragement to the recruits who are actually trained by special teams of range instructors. After two weeks, recruits undergo marksmanship qualifications tests during which much camaraderie, enthusiasm, and determination can be observed. This is reflected in comments made by two recruits just prior to going to the firing line:

"This takes all the stress off."

"Put this on record, today's 007 (platoon number) day; everybody's shooting for our PMIs (marksmanship instructor) and our drill instructors."

(Interviewer)

"So it's important for you guys to take the range?"

"Yes, sir. Real important."

Qualification at the rifle range is a milestone achievement on the road to graduation, and recruits are noticeably elated when they pass this hurdle. These self-instructions direct their attention to the task at hand and, importantly, function to prevent disruptive cognitions. Learning how to remain task-oriented is a central part of coping during circumstances that have the potential of arousing anxiety or anger (Novaco, 1975; Sarason, 1978).

Related to being task-oriented is the idea of sequential coping -- taking each test and each day as they come. Particularly during the early weeks of training, recruits are very nervous about the unknown things they will have to face As they learn to cope day-to-day, taking one step at a time toward the goal of graduation, the process of coping becomes more manageable. The sense of gradual, successive progress spurs perserverance:

"You tell yourself, 'Well I've made it this long, you might as well go all the way with it'."

Making it through boot camp can seem like an overwhelming task, but by taking the view of day-to-day chunks rather than a massive challenge, coping can be facilitated. This is a central theme of the intervention module.

Social Support

Considerable research has now shown that the impact of stressful events can be moderated by the presence of supportive social conditions that protect the person from debilitating forces (Cobb, 1976; Heller,

1980). Social support has been a rubric for studies otherwise identified as investigations of social networks, social isolation, social participation, loss of support, and psychosocial assets. The common denominator in this research has been the concern with psychosocial factors that mitigate the consequences of stressful conditions. Nevertheless, the heterogeneity of research programs has produced considerable variation in the way social support has been construed and operationalized. Cobb (1976) viewed social support as "information leading the subject to believe that he is cared for and loved, esteemed, and a member of a network of mutual obligations" (p. 300). This definition confounds social support, as a pre-existing condition, with its effects on the person. In contrast, Caplan (1974) construes social support as "continuing social aggregates that provide individuals with opportunities for feedback about themselves and for validations of their expectations about others" (p. 4). Caplan further emphasizes the reciprocity of need satisfaction in relationships persisting over time, and his view is suitable for characterizing social support phenomena in the recruit training environment.

For the Marine recruit, social support has a prominent role in the adjustment process. The support has two basic origins: (a) family and loved ones, and (b) fellow platoon members. Many recruits will drive themselves through the demands of training by conjuring images of graduation day. And associated with such images is the expected pride of their family and friends. As they struggle through the hardships of training, recruits often cope by thinking about those whom they love. However, thoughts about home must be kept in balance, if the recruit is to succeed. Preoccupation with matters extraneous to training tasks, particularly when news from home is disconcerting, can seriously interfere with performance. Nevertheless, when asked about what "keeps them going",

recruits commonly mention letters from home as being a major source of motivation. Knowing that there is someone back home who cares about them ameliorates the daily duress.

In addition to support from the distal environment sources is that which emerges within the proximal environment. The nature and progression of training are inherently suited for the forming of social bonds among platoon members. Recruits turn to each other for validation of the concatenation of emotions and cognitions they experience during the early days. They are relieved to find that everyone else has been scared, nervous, worried, and angry. As time goes on, they discover that getting singled out for criticism is a routine but universal experience. They discover that few individuals are good in all aspects of training and that there is reciprocity in helping others.

> "Everybody's scared. If you act big and tough, you won't make friends. And everybody will think you are a coward."

Through the sharing of their experiences, recruits develop an adaptive perspective on the harsh realities of training. They discover that many recruits have felt distressed, just like themselves, but that the vast majority of recruits do successfully complete training.

Intrinsic to the training objectives is the development of teamwork. Recruits must often work with each other on training tasks, and the platoon itself develops a unit identity. Platoon leaders work to instill pride (esprit de corps) among unit members which is invoked throughout training, especially during performance tests where there is much competition between platoons. A strong sense of togetherness is formed, which impels recruits to encourage and inspire one another.

The development of the social support network within the platoon is currently being investigated in our research. It is hoped that what we

learn about social support relationships will also inform us about the attrition-related variations among the training units.

Facilitating Adjustment to Stress

Our field observations and analyses of archival data have indicated that the most stressful aspects of recruit training occur during the early stages of training. We therefore sought to develop a stress reduction intervention aimed at augmenting stress coping skills that would be implemented during the processing period at the receiving barracks through the use of videotape modules.

There have been two previous efforts to facilitate adjustment to recruit training by using intervention films. Datel and Lifrak (1966) developed an experimental film for the purpose of creating realistic expectations among recruits in Army basic training. Their own research had indicated that recruits highly underestimate the level of distress that they will experience during training, as measured by the Multiple Affect Adjective Check List (Zuckerman and Lubin, 1965) on repeated testings. Heavily influenced by the ideas of Janis (1958) in his work on stress experienced by surgical patients, Datel and Lifrak reasoned that stress during basic training is a function of emotional preparedness. They hypothesized that those who are prepared to expect severe, prolonged stress will report less distress during the training cycle.

To create realistic expectations, Datel and Lifrak utilized an existing Army training film, entitled "This Is How It Is", editing portions of the film that portrayed gratifying or rewarding aspects. This resulted in a 20 minute experimental fim, and a control film was also included in their design. The MAACL results demonstrated an elevation in expected distress following the experimental film, however, the film

had no effect on measured distress during training. The authors' discussion of their negative results is instructive:

> "Perhaps in other words, all E film did was to make Ss momentarily anxious... Perhaps to give them a cognitive structure on which to focus their anxieties. Maybe the "work of worrying" has no preparatory value if one is not taught specifically what one should worry about. Or, maybe E film's message told S to worry about the wrong things.
>
> How does one adequately prepare the new recruit for the stress of basic training? Apparently it is not done by a one-shot film which, while it does scare him, fails to arm him." (1966, p. 879).

Datel and Lifrak speculate that their experimental film was not successful because it did not include content related to the "culture shock" or "stripping process" (Goffman, 1957) inherent in basic training. However, it is unclear to us that a portrayal of "stripped identity" phenomena would reduce stress. Rather, recruits must be presented with suggested ways of coping. It is the absence of information about coping techniques that would seem to be the key missing ingredient from the Datel and Lifrak intervention.

An intervention effort analogous to that of Datel and Lifrak has been undertaken with Marine Corps recruits at Parris Island. Horner, Meglino, and Mobley (1979) developed an instructional film, called "PIRATE: (Parris Island Recruit Assimilation Training Exercise)," which aims to give recruits a realistic preview of recruit training experiences. Their intervention is also directed at recruit expectations, but the impetus for their program comes from research on organizational management

and employee turnover. Mobley, Meglino, and their associates have been studying the relationships of values, expectations, and intentions to organizational problems such as attrition.

Our intervention program was developed independent of the Parris Island program. We began by conducting the archival investigations referred to earlier, and then a series of process monitoring activities were initiated to gather the raw material for the intervention modules. Since two members of the research team are former Marine Corps officers, we were well-informed about the training environment. However, it was still necessary to systematically observe the training process in terms of our theoretical models, as well as to obtain audio and video material.

The raw material for the intervention videotape was obtained by several procedures. We first selected, by a near random process, 10 recruits to be subjects for an audio-visual catalogue of training experiences, concentrating on the first five days and on events at the rifle range. These recruits were tracked from the moment they deplaned at San Diego Airport. A photographer and two assistants with tape recorders accompanied these subjects through all aspects of the first five days on the base, thus compiling an extensive record of events and reactions. It must be noted here that because of the intensity and multiplicity of training demands the recruits rapidly became oblivious to the presence of the research team. It is fair to say that in less than 30 minutes after their arrival at the receiving barracks, the recruits paid no attention to the camera and microphones.

The next step in the recording procedure consisted of studio interviews with these same recruits conducted just after the marksmanship qualifications test. At this point in training, three of the 10 recruits had attrited, and one was set back to be recycled. The remaining six recruits were first brought to a viewing room where they had a most unusual experience -- by assembling hundreds of slides and tapes, we recreated their first days in boot camp. The slides and the coordinated sound track presented them a psychologically impactful documentary of these unforgetable early days and thus served as a powerful stimulus for the studio interviews that we conducted with them over the next two days.

Our "stars" were interviewed on camera in groups of three. The interviews probed into their experiences throughout training and sought to learn how they coped with the various adversities. Segments of the videotaped interviews are incorporated in the intervention module, and some of the sound track is also used as voice-overs for other video material. The voice-overs are useful to convey stress-related cognitions and coping strategies in juxtaposition with videos of training circumstances.

A third procedure by which audiovisual material was gathered involved "minicam" footage of training events such as physical conditioning exercises, close order drill, and graduation ceremonies. All of the raw material was subsequently edited in a studio located on the base in accord with a script that we composed.

The module begins with a brief preview of the various aspects of training somewhat like the "realistic job preview" approach. However, in our module this is an abbreviated presentation and is intended primarily as introductory material to get the viewer's attention. There are two key themes in the intervention module: the self-controlled regulation of emotion and task performance effectiveness. The coping skills related to these targeted concerns are introduced by instructional inscriptions that are superimposed on the screen and are modeled in conjunction with specific training situations.

The messages related to the regulation of emotion begin with validation of the recruits' experiences during the initial days. It is conveyed that fear, anger, disappointment, and worry are perfectly normal and quite common reactions among recruits. They are presented with the circumstances that have induced this distress and are told that despite their worry and confusion, thousands of recruits have felt the same way yet have ultimately succeeded in training.

In order to minimize the occurrence of disruptive emotions, several steps are taken to develop an adaptive cognitive orientation. Specific information is imparted about the roles of training personnel and what is to be expected of them. For example, in addition to describing troop handlers and drill instructors in terms of characteristics routinely recognized by the military organization (e.g., being an example of physical

conditioning, military proficiency, bearing, and devotion to duty), the viewer is told:

> "You may have had trouble understanding the language used by the troop handler. Some of his words may seem strange. He does not come across as being friendly. He does not hand out praise when tasks are completed."

Detailed information is also given about what is generally expected of recruits and the general ingredients of successful performance. Thus, consistent with many cognitively-based treatment interventions and, in particular, with the educational phase of the stress inoculation approach, recruits are cognitively prepared for the acquisition of coping skills.

Efforts are then made to influence the expectation and appraisal structures of recruits so as to prevent disruptive emotions and to promote adaptive behavior. For example, recruits must learn to perform under time pressures and to constructively deal with their inevitable mistakes. They must expect to be sharply criticized for mistakes and learn not to appraise such criticism antagonistically or in a self-derogating manner. Very importantly, they must learn how to remain task-oriented when confronted by threat or provocation. Novaco (1975) and Sarason (1978), respectively for anger and anxiety, have emphasized the value of maintaining a task orientation as an important stress coping skill.

The regulation of emotion theme is thus intertwined with the task performance theme. In order to do well on demanding training tasks,

recruits must learn to control self-defeating emotional states and to tune-out self-preoccupying cognitions that engender such emotions. They must also process information efficiently, exercise good judgment, attend to detail, endure duress, learn from mistakes, and develop teamwork. We attempt to transmit this obviously complex set of skills by illustrating them in conjunction with a simple task (making a rack) and then generalizing their application to other tasks in training.

The presentation is structured according to a task performance framework having the following components: (a) cognitive orientation, (b) information input, (c) meaning analysis, (d) response execution, and (e) feedback consequences. This scheme is exemplified in a role play enactment in which two recruits must make and remake a "rack" (bed) under the close and highly energized supervision of a drill instructor. So as to convey this more clearly, excerpts from the script are given below. The italicized words appear on the screen as inscriptions superimposed on the video.

"Let's take a look at two recruits performing a task that will be part of your everyday experience in training -- making a rack.

"Watch carefully and notice that the task is being done under difficult conditions.

- There is a <u>time limit</u>
- They must pay close <u>attention to details</u>, and
- The drill instructors are providing very <u>close supervision and correction</u>

Pay close attention to how these recruits react.

"It is obvious that these recruits are under pressure. They must

- Be ready to respond
- Listen carefully to directions and know what is being asked of them
- Perform quickly and make as few mistakes as possible
- Correct their mistakes smoothly and accurately
- Not let their personal feelings interfere with their performance (control feelings)
- Work as a team, making sure each knows what the other is doing.

"In order to help you understand not only what goes into doing well in making a rack, but also on other tasks you will be given in training, we are going to break down the task performance into its working parts.

"These parts or components of task performance are mental attitude input, judgment, response, and results.

Each task performance component is then illustrated by some additional training task, alternately referring back to the rack-making scene to reinforce the message.

The module, in summary, attempts to augment the stress coping skills of recruits by acknowledging the presence of distress, providing useful information about the environment, promoting an adaptive cognitive orientation, offering suggestions about coping techniques, and modeling successful coping behaviors. The second and third modules,

which focus on the regulation of emotion and task performance respectively, are designed to elaborate and reinforce these two key themes. They are currently being developed, and when completed will be implemented on the second and third day of the processing period. Supplementary printed material to be included in the recruits' Handbook of Essential Knowledge is also being developed to further reinforce the intervention program.

Experimental Evaluation

The effects of the first coping skills module are being examined as part of a larger investigation of recruit training factors and outcomes. We are conducting a longitudinal analysis of cognitive and performance measures in order to learn more about the social environment of training units, as well as to explore various other topics. The measurement time points are the first and third days of processing, midway through training, and just prior to graduation.

In conjunction with this larger study, we sought to evaluate the impact of the first coping skills module. To be sure, viewing one 35 minute videotape may not have much influence on measures distant in the training cycle, but we do expect exposure to the one module to affect cognitions during the processing period. We thus implemented an experimental design that would test for such effects and here report some preliminary findings on this evaluation.

The experimental evaluation was conducted by randomly assigning 530 recruits to five conditions. One group (MI) saw the coping skills module ("Making It"); another group (BG) saw a comparison film ("The Beginning"), which was the San Diego version of the "PIRATE" film developed

at Parris Island with some additional material; a third group saw both films, viewing the coping skills module first (MI + BG); a fourth group saw both films in reverse order (BG + MI); and the fifth group was a no film control condition. The experimental design is a 2 x 2 factorial (viewing or not viewing each film) with an additional control group (BG + MI) to counterbalance order of viewing.

The films were shown in large classrooms. After completing the questionnaire instrument containing various sets of self-report scales, recruits were sent to classroom locations corresponding to the treatment conditions. Importantly, the randomization was done within platoons. The procedure was implemented for each of 6 platoons in the September 1980 cohort. These platoons had formed on successive days and were thus tested separately. The retest was administered two days later to each platoon sequentially. The entire procedure was conducted over a period of two weeks.

The dependent measures consist of ratings of perceived difficulty and efficacy expectations for particular training tasks, perceptions of control, adjustment problems, social support, locus of control (IE) and other stress relevant indices. Performance measures and archival data pertaining to disciplinary action and sick call are also utilized in our analyses. The results of the evaluation are forthcoming, and here we present only a few preliminary findings to illustrate the impact of the intervention. The complexity of the analyses, particularly as they involve moderator variables such as locus of control, demographic factors, and training unit conditions preclude presentation here.

Regarding the effect on cognitions during the processing period, we have found that viewing the coping skills module ("Making It") resulted

in a significant increase in efficacy expectations across training tasks. Using a 2 x 2 x 2 ANOVA design (MI x BG x IE) [illegible] a composite index of changes on 11 task expectancy ratings [illegible] significant MI main effect, $F(1,236) = 5.26$, $p < .02$, and the [illegible] interaction approached significance ($p < .07$). No other main [illegible] interactions resulted on this composite index. Examination [illegible] analyses for individual task ratings shows that the MI main effect [illegible] the composite index in particular results from the efficacy ratings [illegible] marksmanship, physical training, endurance under stress, controlling emotions, learning essential knowledge, and living up to drill instructor expectations. The groups that see "Making It" subsequently have higher expectations of how they will perform on these tasks than do the groups that do not see the coping skills module. In addition, recruits in the MI conditions report significantly less trouble adjusting to the demands of drill instructors, $F = 3.85(1,251)$, $p < .05$.

The triple interaction on the composite index results from significant three-way effects on drill, military appearance, physical training, and endurance under stress. Most simply described, this interaction results from the MI condition effects on externals and the BG condition effects on internals. The strongest gains in efficacy occur for external locus of control recruits who see "Making It." But, while "Making It" primarily enhances the efficacy expectations of externals when it is shown by itself, in the combined condition with the comparison film, internals gained more than did externals. The differential effect of the MI condition on externals is also reflected in significant two-way interactions (MI x IE) on several individual task efficacy ratings.

The composite index for a set of six personal control items also had a significant MI x IE interaction, $F(1,246) = 6.38$, $p < .01$, with no

other effects being significant. This result is due to particular personal control beliefs for grades and job success, emotional state, and problems at home. For each of these variables, in the conditions where the coping skills module is shown, external locus of control recruits increase more in their perceptions of control than do internals (who basically do not change); whereas, in those conditions where the coping skills module is not shown, internals increase more in perceptions of control than do externals (who basically do not change). As with the composite index, no effects other than the MI x IE interaction are significant.

These findings thus indicate that the coping skills module has a significant positive effect on the cognitions of recruits during the stressful processing period. Viewing the experimental intervention videotape increased the efficacy expectations of recruits with regard to a number of specified training tasks and also increased their personal control beliefs concerning several sources of stress. Moreover, the inclusion of a comparison film in the experimental design strengthens the significance of the obtained effects, particularly since the comparison film was made for the purpose of helping recruits to adjust.

The analyses of the intervention also indicate that the coping skills module has differential effects according to locus of control orientation. Externals gain the most from the intervention. In addition to the dependent measures described above, the results on other indices show that externals in the intervention conditions increase in the belief that good performance on various designated training tasks will determine success as gauged by drill instructors. This is in contrast to various control conditions where externals either decrease or show no gain in such beliefs.

These results for external locus of control recruits are important in light of our previous findings that externals have a higher rate of attrition (17%) than do internals (7%) as well as being more negative in their self-appraisals (Cook, Novaco, & Sarason, 1980). Those having an external orientation are less likely to succeed in training and, even when advancing to graduation, increase in levels of anger provocation. In this regard, the coping skills intervention module seems to be positively affecting those who are most in need of help. Further analyses will sharpen our understanding of these effects, particularly as they combine and/or interact with the influences of the platoon environments.

Summary and Prospective Issues

The Marine Corps recruiting training environment is a highly stressful arena in which cognitive coping skills are of the utmost importance. The intensity, duration, and multiplicity of the environmental demands, occurring in a context where overt coping behavior is highly constrained, necessitate the early acquisition of cognitive restructuring capabilities. The successful completion of training is actually determined in the early stages of the training cycle when recruits must make rapid adjustments.

For many recruits, there seems to unfold a natural mastery of s. However, some recruits are not at all successful in this natural mastery process and manifest stress reactions which result in discharge. Others, who do manage to complete training, may nonetheless experience distress which impairs their performance in training and may have residual effects after graduation.

To facilitate the coping resources of recruits, we have developed and have begun to implement a cognitive-behavioral intervention designed to increase stress coping skills. The first of three videotape modules has been experimentally evaluated, and the results are indeed supportive of the effectiveness of the intervention in producing adaptive cognitive changes among recruits. We expect that the additional modules will add significantly to the positive results.

The coping skills intervention is only one part of our research on the stress associated with recruit training. Moreover, the augmentation of coping skills is only one component of our stress reduction perspective. Viewing stress as a condition of imbalance between environmental demands and coping resources signifies that stress can be mitigated by modifying environmental demands, as well as by boosting coping skills. Achieving changes in military training environments is, of course, a complex and exceedingly difficult undertaking, yet our research on training unit influences holds considerable promise for organizational interventions.

To elaborate briefly on the prospect of environmental change, we contend that the environmental demands during recruit training are determined not only by the rigorous tasks and challenges specified by Marine Corps training standards but also by the particular way in which the training regimen is operationalized by training personnel. Drill instructor teams, in particular, vary in the manner in which they conduct training, such that there is variation in the social environments of platoons. The demands to which recruits are exposed are not uniform. This is manifested in variation in attrition rates, as well as on the cognitive structures of platoon members, such as locus of control. Our

ongoing longitudinal studies of recruits and drill instructors will hopefully provide a body of information that might contribute to organizational policy decisions in the interest of optimizing training environments.

Cognitive-behavioral interventionists who are concerned with stress reduction must attend to the contextual determinants of stress reactions and design interventions that bear in mind the environmental sources of stress. Our research on recruit training proceeds in that direction, and we hopefully have generated interest in such agenda. Beyond this concern, we believe that the coping skills intervention represents a significant extension of clinically-based treatment methods to an uncommonly intense stress context.

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